



Appendix C.0

TRAFFIC STUDIES OVERVIEW



Traffic Studies Overview

The following overview is intended to provide the reader with background information regarding five separate traffic reports which are included as Appendices C, C.1, C.2, C.3, and C.4 to this Final EIR, and are the basis for the analysis of traffic impacts in the Final EIR.

Appendix C, dated April 23, 2012, is the initial traffic study included in the Draft EIR that evaluated the potential traffic impacts and mitigation measures related to the Originally Proposed Project.

Subsequent to the release of the Draft EIR for public review, the following three new project alternatives were identified: the Reduced Main Street Alternative, the Reduced Mixed-use Alternative, and the Specialty Food Market Retail Alternative. To provide information regarding the potential traffic impacts associated with these new alternatives, three new traffic studies were created: Appendix C.1, C.2, and C.3. The analysis contained in Appendices C.1, C.2, and C.3 is based on the same assumptions included in the analysis of the Originally Proposed Project (Appendix C).

Appendix C.1, dated September 24, 2013, evaluates the traffic impacts of the Reduced Main Street Alternative. Because the project applicant is intending to pursue the Reduced Main Street Alternative (also referred to as the Revised Project), the analysis of the Reduced Main Street Alternative is more extensive than the analysis of the other two alternatives. As a result, Appendix C.1 includes mitigation measures as well as an analysis of impacts. The analysis of the Reduced Main Street Alternative concludes that the traffic impacts of the Reduced Main Street Alternative would be very similar to the Originally Proposed Project, and the mitigation remained the same.

Appendix C.2, dated October 10, 2013, identifies the potential impacts of the Reduced Mixed-use Alternative. The analysis of the Reduced Mixed-use Alternative concludes that, in the long-term, the traffic impacts of this alternative would be very similar to the Originally Proposed Project. However, in the existing and near-term condition, the Reduced Mixed-use Alternative would avoid the significant impact associated with the Originally Proposed Project on the Del Mar Heights Road bridge. Although Del Mar Heights Road, between the I-5 NB ramp and High Bluff Drive, would continue to be significantly impacted by the Reduced Mixed-use Alternative, the LOS would be E rather than F. In the existing plus project condition, this alternative would avoid the impact to the Carmel Creek Road/Del Mar Trail intersection.

Appendix C.3, dated October 10, 2013, addresses the potential impacts of the Specialty Food Market Retail Alternative. The analysis of the Specialty Food Market Retail Alternative (Appendix C.3) concludes that this alternative would avoid the impact of the Originally Proposed Project on Del Mar Heights Road between the I-5 NB ramps and High Bluff Drive, at the El Camino Real/SR 56 eastbound onramp and the Carmel Creek Road/Del Mar Trail intersection.

Appendix C.4, dated January 7, 2014, was prepared in response to comments made during the public review period for the Draft EIR. The focus of the analysis is on the Reduced Main Street

Alternative (Revised Project) due the project applicant's intent to pursue this development alternative. As such, Appendix C.4 updates the information contained in Appendix C.1.

The comments received during public review included: (1) the appropriate use of the City signal timing at study area intersections, (2) concern that future retail development related to Del Mar Highlands Town Center and Pacific Highlands may not have been included in the long-term traffic impact analysis, and (3) the appropriateness of using a trip generation rate of 40 per 1,000 square feet for the first phase of retail development in the proposed project. To confirm that future traffic from the eventual expansion of Del Mar Highlands Town Center and full development of Pacific Highlands was factored into the traffic analysis, a new SANDAG travel forecast model was run and used in the analysis in Appendix C.4. The review of the new model run determined that the future development from these projects was explicitly included. The review of the new model run also indicated that the traffic impact conclusions of Appendix C.1 were very similar, although several project impacts associated with Phase 1 of the Originally Proposed Project moved up to Phase 1.

In order to ensure that the traffic impacts from retail development were not underestimated, the traffic analysis in Appendix C.4 applied a trip generation rate of 70 trips per 1,000 square feet to all of the retail development; the analysis in Appendix C.1 applied a rate of 40 trips to the retail in Phase 1, and a blended rate for the balance of the proposed retail development.



Appendix C

TRAFFIC IMPACT ANALYSIS OF
PROPOSED PROJECT



TRAFFIC IMPACT ANALYSIS

For

ONE PASEO

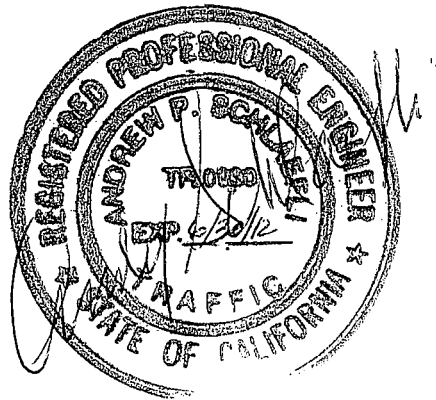
Prepared for

THE CITY OF SAN DIEGO

and

KILROY REALTY

FINAL SUBMITTAL: March 23, 2012



© URBAN SYSTEMS ASSOCIATES, INC.
TRAFFIC PLANNING & ENGINEERING, MARKETING & PROJECT SUPPORT
CONSULTANTS TO INDUSTRY AND GOVERNMENT
4540 Kearny Villa Road, Suite 106
San Diego, CA 92123-1573
(858) 560-4911

**TRANSPORTATION ANALYSIS
TABLE OF CONTENTS**

<u>Section</u>	<u>Page</u>
1.0 EXECUTIVE SUMMARY	1-1
2.0 INTRODUCTION	2-1
3.0 PROPOSED PROJECT	3-1
4.0 METHODOLOGY	4-1
5.0 EXISTING CONDITIONS.....	5-1
6.0 EXISTING CONDITIONS WITH PROJECT ANALYSIS.....	6-1
7.0 CUMULATIVE PROJECTS	7-1
8.0 NEAR TERM WITHOUT PROJECT	8-1
9.0 NEAR TERM WITH PROJECT PHASE 1.....	9-1
10.0 NEAR TERM WITH PROJECT PHASES 1 & 2	10-1
11.0 NEAR TERM WITH PROJECT BUILD-OUT.....	11-1
12.0 LONG TERM CUMULATIVE (YEAR 2030) WITHOUT PROJECT.....	12-1
13.0 LONG TERM CUMULATIVE (YEAR 2030) WITH PROJECT BUILD-OUT	13-1
14.0 ACCESS & ON-SITE ANALYSIS	14-1
15.0 CONSTRUCTION TRAFFIC ANALYSIS / ADAPTIVE TRAFFIC CONTROL.....	15-1
16.0 DEIR ALTERNATIVES ANALYSIS	16-1
17.0 CINEMA PHASING ALTERNATIVES	17-1
18.0 TRANSPORTATION DEMAND MANAGEMENT / TRANSIT	18-1
19.0 CONCLUSIONS AND RECOMMENDATIONS	19-1
20.0 REFERENCES	20-1
21.0 URBAN SYSTEMS ASSOCIATES, INC. PREPARERS	21-1

LIST OF FIGURES

<u>Number</u>		<u>Page</u>
1-1	Proposed Project Mitigation	1-46
1-2	Proposed Lane Configurations With Mitigation.....	1-47
2-1	Project Location Map.....	2-2
2-2	Project Site Plan.....	2-3
2-3	Study Area Boundary & Intersection Key	2-4
3-1	Project Only Distribution Percentages (Project Build-out)	3-11
3-2	Project Only Average Daily Traffic Volumes (Project Phase 1).....	3-12
3-3	Project Only Average Daily Traffic Volumes (Project Phase 1 & 2).....	3-13
3-4	Project Only Average Daily Traffic Volumes (Project Build-out).....	3-15
3-5	Project Only AM/PM Peak Hour Traffic (Project Phase 1) (4 Pages)	3-16
3-6	Project Only AM/PM Peak Hour Traffic (Project Phase 1 & 2) (4 Pages)	3-20
3-7	Project Only AM/PM Peak Hour Traffic (Project Build-out) (4 Pages)	3-24
5-1	Existing Average Daily Traffic.....	5-5
5-2	Existing Lane Configurations (4 Pages)	5-8
5-3	Existing AM/PM Peak Hour Traffic (4 Pages).....	5-12
7-1	Cumulative Projects Average Daily Traffic Volumes	7-2
7-2	Cumulative Projects AM / PM Peak Hour Traffic Volumes (4 Pages)	7-3
8-1	Near Term Without Project Average Daily Traffic	8-2
8-2	Near Term Without Projects AM / PM Peak Hour Traffic..... Volumes (4 Pages)	8-5
9-1	Near Term With Project Average Daily Traffic (Phase 1)	9-2
9-2	Near Term With Project AM / PM Peak Hour Traffic	
	(Project Phase 1) (4 Pages)	9-5

LIST OF FIGURES (continued)

<u>Number</u>		<u>Page</u>
10-1	Near Term With Project Average Daily Traffic (Phase 1 & 2)	10-2
10-2	Near Term With Project AM / PM Peak Hour Traffic	
	(Phase 1 & 2) (4 Pages)	10-5
11-1	Near Term With Project Average Daily Traffic (Build-out)	11-2
11-2	Near Term With Project AM / PM Peak Hour Traffic (4 Pages)	11-5
12-1	Year 2030 Without Project Average Daily Traffic Volumes	12-2
12-2	Year 2030 Without Project AM / PM Peak Hour Traffic Volumes (4 pages).....	12-5
13-1	Year 2030 With Project (Build-out) Average Daily Traffic Volumes	13-2
13-2	Year 2030 With Project (Build-out) AM / PM Peak Hour Traffic Volumes (4 pages).....	13-5
14-1	Conceptual Striping Layout	14-2
14-2	Proposed Lane Configurations – Main Street.....	14-4
14-3	Distribution Percentages – Project Phase 1	14-5
14-4	Average Daily Traffic – Project Phase 1	14-6
14-5	AM / PM Peak Hour Traffic – Project Phase 1	14-8
14-6	Distribution Percentages – Project Build-out	14-9
14-7	Average Daily Traffic – Project Build-out	14-10
14-8	AM / PM Peak Hour Traffic – Project Build-out	14-11
14-9	Conceptual Layout of Del Mar Heights Road at I-5 NB Ramps and High Bluff Drive.....	14-15
14-10	Conceptual Layout of Del Mar Heights Road at Third Ave. / First Ave. / El Camino Real	14-17
18-1	Bicycle & Pedestrian Circulation Plan	18-3
18-2	Future Transportation Locations	18-4
18-2	Carmel Valley Community Plan Alternative Circulation Modes.....	18-5

LIST OF FIGURES (continued)

<u>Number</u>	<u>Page</u>
19-1 Caltrans I-5 North Coast Corridor 10+4 With Buffer Alternative (Layout)	19-50
19-2 A Conceptual Striping Layout for the I-5 Northbound Ramps at Del Mar Heights Rd.....	19-53
19-2 B Conceptual Striping Layout for Del Mar Heights Rd. at High Bluff Dr.	19-54
19-2 C Conceptual Striping Layout of the I-5 Southbound Loop On-Ramp.....	19-55
19-3 A Modified Hybrid Connector Alternative	19-58
19-3 B Hybrid Connector Alternative.....	19-59
19-3 C Direct Connector Alternative	19-60
19-3 D Auxiliary Lane Alternative	19-61
19-4 Eastbound to Northbound Loop On Ramp Concept.....	19-64
19-5 Del Mar Heights Road / High Bluff Drive Triple Left Conceptual Layout	19-65

LIST OF TABLES

<u>Number</u>		<u>Page</u>
1-1	Existing & Existing With Project Street Segment LOS Summary	1-5
1-2	Existing & Existing With Project Street Segment LOS Summary (Phase 1 & 2)	1-6
1-3	Existing & Existing With Project Street Segment LOS Summary (Build-out)	1-7
1-4	Existing & Existing With Project Intersection LOS Summary	1-9
1-5	Existing & Existing With Project Intersection LOS Summary (Phase 1 & 2)	1-10
1-6	Existing & Existing With Project Intersection LOS Summary (Build-out)	1-11
1-7	Existing & Existing With Project Freeway Summary (Phase 1)	1-12
1-8	Existing & Existing With Project Freeway Summary (Phase 1 & 2)	1-13
1-9	Existing & Existing With Project Freeway Summary (Build-out)	1-14
1-10	Existing & Existing With Project Ramp Meter Summary (Phase 1)	1-16
1-11	Existing & Existing With Project Ramp Meter Summary (Phase 1 & 2)	1-17
1-12	Existing & Existing With Project Ramp Meter Summary (Build-out)	1-18
1-13	Near Term With & Without Project Street Segment LOS Summary (Phase 1)	1-20
1-14	Near Term With & Without Project Street Segment LOS Summary (Phase 1 & 2)	1-21
1-15	Near Term With & Without Project Street Segment LOS Summary (Build-out)	1-22
1-16	Near Term With & Without Project Intersection LOS Summary (Phase 1)	1-23
1-17	Near Term With & Without Project Intersection LOS Summary (Phase 1 & 2)	1-25
1-18	Near Term With & Without Project Intersection LOS Summary (Build-out)	1-26
1-19	Near Term With & Without Project Freeway Summary (Phase 1)	1-27
1-20	Near Term With & Without Project Freeway Summary (Phase 1 & 2)	1-28
1-21	Near Term With & Without Project Freeway Summary (Build-out)	1-29

LIST OF TABLES (Continued)

<u>Number</u>		<u>Page</u>
1-22	Near Term With & Without Project Ramp Meter Summary (Phase 1).....	1-31
1-23	Near Term With & Without Project Ramp Meter Summary (Phased 1 & 2).....	1-32
1-24	Near Term With & Without Project Ramp Meter Summary (Build-out).....	1-33
1-25	Long Term Cumulative (Year 2030) With & Without Project Street Segment LOS Summary (Build-out).....	1-35
1-26	Long Term Cumulative (Year 2030) With & Without Project Intersection LOS Summary. (Build- out)	1-36
1-27	Long Term Cumulative (Year 2030) With & Without Project Freeway Summary (Build-out).....	1-37
1-28	Long Term Cumulative (Year 2030) With & Without Project Ramp Meter Summary (Build-out).....	1-38
1-29	Transportation Mitigation Phasing Plan	1-40
1-30	Intersection Levels of Service With & Without Mitigation.....	1-41
1-31	Street Segment Levels of Service With Mitigation	1-42
1-32	Summary of Mitigation (Intersections).....	1-43
1-33	Summary of Mitigation (Street Segments & Ramp Meters)	1-44
1-34	Summary of Project Features.....	1-45
2-1	Development Summary	2-5
2-2	Study Area Street Segments.....	2-6
2-3	Study Area Intersections	2-7
3-1	Project Only Trip Generation Table (Project Phase 1) (2 Pages).....	3-4
3-2	Project Only Trip Generation Table (Project Phase 1) (2 Pages).....	3-6
3-3	Project Only Trip Generation Table (Project Build-out) (2 Pages)	3-8

LIST OF TABLES (Continued)

<u>Number</u>		<u>Page</u>
4-1	Level of Service Criteria for Signalized Intersections	4-5
4-3	Roadway Classifications	4-9
5-1	Existing Street Segment Levels of Service	5-7
5-2	Existing Intersection Levels of Service	5-16
5-3	Existing Freeway Segment Levels of Service	5-18
5-4	Existing Ramp Meter Analysis	5-19
6-1	Existing + Project (Phase 1) Street Segment Levels of Service	6-2
6-2	Existing + Project (Phase 1) Intersections Levels of Service	6-3
6-3	Existing + Project (Phase 1) Freeway Segment Levels of Service	6-5
6-4	Existing + Project (Phase 1) Ramp Meter Analysis	6-6
6-5	Existing + Project (Phase 1 & 2) Street Segment Levels of Service	6-8
6-6	Existing + Project (Phase 1 & 2) Intersection Levels of Service.....	6-9
6-7	Existing + Project (Phase 1 & 2) Freeway Segment Levels of Service.....	6-11
6-8	Existing + Project (Phase 1 & 2) Ramp Meter Analysis	6-12
6-9	Existing + Project (Build-out) Street Segment Levels of Service	6-14
6-10	Existing + Project (Build-out) Intersection Levels of Service.....	6-15
6-11	Existing + Project (Build-out) Freeway Segment Levels of Service.....	6-17
6-12	Existing + Project (Build-out) Ramp Meter Analysis.....	6-18
8-1	Near Term Without Project Street Segment Levels of Service	8-3
8-2	Near Term Without Project Intersection Levels of Service.....	8-9
8-3	Near Term Without Project Freeway Segment Levels of Service.....	8-10

LIST OF TABLES (Continued)

<u>Number</u>		<u>Page</u>
8-4	Near Term Without Ramp Meter Analysis.....	8-11
9-1	Near Term With Project Street Segment Levels of Service (Phase 1)	9-3
9-2	Near Term With Project Intersection Levels of Service (Phase 1).....	9-9
9-3	Near Term With Project Freeway Segment Levels of Service (Phase 1).....	9-10
9-4	Near Term With Project Ramp Meter Analysis.....	9-11
10-1	Near Term With Project Street Segment Levels of Service (Phase 1 & 2)	10-3
10-2	Near Term With Project Intersection Levels of Service (Phase 1 & 2).....	10-9
10-3	Near Term With Project Freeway Segment Levels of Service (Phase 1 & 2).....	10-10
10-4	Near Term With Project Ramp Meter Analysis (Phase 1 & 2).....	10-11
11-1	Near Term With Project Street Segment Levels of Service	11-3
11-2	Near Term With Project Intersection Levels of Service (Build-out).....	11-9
11-3	Near Term With Project Freeway Segment Levels of Service(Build-out).....	11-10
11-4	Near Term With Project Ramp Meter Analysis (Build-out).....	11-11
12-1	Year 2030 Without Project Street Segment Levels of Service	12-3
12-2	Year 2030 Without Project Intersection Levels of Service	12-9
12-3	Year 2030 Without Project Freeway Segment Levels of Service.....	12-11
12-4	Year 2030 Without Project Ramp Meter Analysis	12-12
13-1	Year 2030 With Project (Build-out) Street Segment Levels of Service	13-3
13-2	Year 2030 With Project (Build-out) Intersection Levels of Service.....	13-9
13-3	Year 2030 With Project (Build-out) Freeway Levels of Service.....	13-10
13-4	Year 2030 With Project (Build-out) Ramp Meter Analysis	13-11

LIST OF TABLES (Continued)

<u>Number</u>		<u>Page</u>
14-1	Del Mar Heights Road Queuing / Capacity Table – AM Peak Hour.....	14-13
14-2	Del Mar Heights Road Queuing / Capacity Table – PM Peak Hour	14-14
17-1	Trip Generation Table Cinema in Phase 1 (2 pages)	17-2
17-2	Near Term With & Without Project (Phase 1) Street Segment Summary	
	Cinema in Phase 1.....	17-4
17-3	Near Term With & Without Project (Phase 1) Intersection Summary	
	Cinema in Phase 1.....	17-6
17-4	Near Term With & Without Project (Phase 1) Ramp Meter Summary	
	Cinema in Phase 1.....	17-7
17-5	Trip Generation Table Cinema in Phase 2 (2 pages)	17-8
17-6	Near Term With & Without Project (Phase 1 & 2) Street Segment Summary.....	
	Cinema in Phase 2.....	17-11
17-7	Near Term with & Without Project (Phase 1 & 2) Intersection Summary.....	
	Cinema in Phase 2.....	17-12
17-8	Near Term With & Without Project (Phase 1 & 2) Ramp Meter Summary.....	
	Cinema in Phase 2.....	17-13
17-9	Near Term With & Without Project (Phase 1 & 2) Freeway Summary	
	Cinema in Phase 2.....	17-14
19-1	Existing & Existing With Project Street Segment LOS Summary (Phase 1).....	19-3
19-2	Existing & Existing With Project Street Segment LOS Summary (Phase 1 & 2).....	19-4
19-3	Existing & Existing With Project Street Segment LOS Summary (Build-out)	19-5
19-4	Existing & Existing With Project Intersection LOS Summary (Phase 1)	19-6
19-5	Existing & Existing With Project Intersection LOS Summary (Phase 1 & 2)	19-7
19-6	Existing & Existing With Project Intersection LOS Summary (Build-out)	19-8
19-7	Existing & Existing With Project Freeway Summary (Phase 1).....	19-9

LIST OF TABLES (Continued)

<u>Number</u>	<u>Page</u>
19-8 Existing & Existing With Project Freeway Summary (Phase 1 & 2).....	19-10
19-9 Existing & Existing With Project Freeway Summary (Build-out).....	19-11
19-10 Existing & Existing With Project Ramp Meter Summary (Phase 1).....	19-12
19-11 Existing & Existing With Project Ramp Meter Summary (Phase 1 & 2).....	19-13
19-12 Existing & Existing With Project Ramp Meter Summary (Build-out).....	19-14
19-13 With and Without Project Street Segment LOS Summary (Phase 1)	19-22
19-14 Near Term With and Without Project Street Segment Significance (Project Phase 1 & 2).....	19-23
19-15 Near Term With and Without Project Street Segment Significance (Build-out).....	19-24
19-16 Near Term With and Without Project Intersection LOS Summary (Phase 1).....	19-25
19-17 Near Term With & Without Project Intersection LOS Summary (Phase 1 & 2)	19-26
19-18 Near Term With & Without Project Intersection LOS Summary (Build-out).....	19-27
19-19 Near Term With & Without Project Freeway Summary (Phase 1)	19-29
19-20 Near Term With & Without Project Freeway Summary (Phase 1 & 2)	19-30
19-21 Near Term With & Without Project Freeway Summary (Build-out)	19-31
19-22 Near Term With & Without Project Ramp Meter Summary (Phase 1).....	19-32
19-23 Near Term With & Without Project Ramp Meter Summary (Phase 1 & 2).....	19-33
19-24 Near Term With & Without Project Ramp Meter Summary (Build-out).....	19-34
19-25 Year 2030 With & Without Project Street Segment LOS Summary (Build-out).....	19-36
19-26 Year 2030 With & Without Project Intersection Summary (Build-out).....	19-37
19-27 Year 2030 With & Without Project Freeway Summary (Build-out).....	19-39
19-28 Year 2030 With & Without Project Ramp Meter Summary (Build-out).....	19-40

LIST OF TABLES (Continued)

<u>Number</u>		<u>Page</u>
19-29	Transportation Mitigation Phasing Plan	19-42
19-30	Intersection Levels of Service With & Without Mitigation.....	19-43
19-31	Street Segments Levels of Service With Mitigation.....	19-44
19-32	Summary of Mitigation (Intersections).....	19-45
19-33	Summary of Mitigation (Street Segments & Ramp Meters)	19-46
19-34	Summary of Project Features.....	19-47
19-35	North Coast Corridor Schedule.....	19-51
19-36	I-5 / SR-56 Connectors Alternatives.....	19-57

APPENDICES

Volume I

- A. Series 11 Forecast & Trip Generation Information
- B. Additional Project Analysis using 70 trips / ksf vs. a blended rate for the Community Shopping Center
- C. Existing Traffic Counts & Ramp Meter Information
- D. Existing Synchro Worksheets
- E. Existing + Project Synchro Worksheets
- F. Cumulative Projects Information

Volume II

- G. Near Term Without Project Synchro Worksheets
- H. Near Term With Project Phase 1 Synchro Worksheets
- I. Near Term With Project Phase 1 & 2 Synchro Worksheets
- J. Near Term With Project Build-out Synchro Worksheets
- K. Year 2030 Factoring Worksheets
- L. Year 2030 Without Project Synchro Worksheets
- M. Year 2030 With Project Build-out Synchro Worksheets

Volume III

- N. Signal Warrants / Mitigation Cost Estimates / Conceptual Striping Layouts / Internal Street Worksheets / Mitigation Synchro Worksheets / Queuing Analysis Worksheets / Del Mar Heights Widening Memo
- O. Construction Traffic Impact Analysis
- P. Adaptive Traffic Control
- Q. DEIR Project Alternative Analysis

APPENDICES CONT.

- R. I-5 North Coast Corridor Schedule / Cinema in Phase 1 & 2 Trip Assignment
- S. Future Traffic Volume Comparison (I-5 / Del Mar Heights Road interchange)
- T. Fair Share Contribution Percentage (I-5 Southbound Loop On-Ramp)
- U. Caltrans Traffic Mitigation Agreement

1.0 EXECUTIVE SUMMARY

This study was commissioned by Kilroy Realty to determine potential transportation impacts and appropriate mitigation measures for the development of One Paseo. The proposed project is located on the southwest corner of Del Mar Heights Road and El Camino Real. The proposed development includes 245,000 square feet of corporate office; 291,000 square feet of multi-tenant office; a 150 room hotel; 220,000 square feet community shopping center; a 10 screen cinema; and 608 multi-family residential units which would generate 28,365 average daily trips (ADT). A credit for mixed use trip reductions has been used for the One Paseo project which provides a total reduction of 1,404 ADT. After taking credit for the mixed-use reductions, the net new driveway trips for the proposed development is 26,961 ADT with 1,538 trips in the AM peak hour and 2,932 trips in the PM peak hour. Using cumulative trip generation rates, the proposed project would generate 24,285 ADT. After taking credit for the mixed-use reductions (1,404 ADT), the net new cumulative trips for the proposed development is 22,881 ADT with 1,415 trips in the AM peak hour and 2,524 trips in the PM peak hour.

In order to determine a scope of work and study area for the Transportation Impact Study, staff of Urban Systems Associates, Inc. (USAI) completed a preliminary analysis and met with City Transportation staff. Based on the meeting, study area intersections and street segments were identified for the analysis and traffic generation and distribution was determined. The preliminary analysis was based on a Series 11 travel forecast and both machine and manual traffic counts of the existing daily and peak hour traffic flow data for the study intersections and street segments.

This report was prepared pursuant to the City's *Traffic Impact Study Manual* and recent California case law applying the California Environmental Quality Act to traffic studies prepared in connection with

environmental impact reports (*See Sunnyvale West Neighborhood Association v. City of Sunnyvale* (2010) 190 Cal.App.4th 1351; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48; and *Pfeiffer v. City of Sunnyvale* (2011) 200 Cal.App.4th 1552.)

The traffic generation of One Paseo was based on the City of San Diego's May 2003 Trip Generation Manual. The project is intended to be built in three phases. Phase 1 is planned to start construction in 2013, Phase 2 in 2014, and Phase 3 in 2015. The project traffic by phase was then added to the Existing, Near Term, and Long Term Cumulative (Year 2030) scenarios, and an impact analysis was completed in which eight scenarios were analyzed: Existing Conditions, Existing Conditions With Project, Near Term Without Project, Near Term With Project Phase 1, Near Term With Project Phase 1 & 2, Near Term With Project Build-out (Phase 1, 2 & 3), Long Term Cumulative (Year 2030) Without Project, and Long Term Cumulative (Year 2030) With Project Build-out. The term "Project Build-out" refers to Phases 1, 2 & 3 of the proposed project. The existing or baseline condition against which project impacts are evaluated comprises conditions that existed on or about the date of publication of the Notice of Preparation ("NOP") of the draft environmental impact report for the project, which is May 25, 2010.

In addition to the existing plus project (phases 1, 2, and 3) scenario, which comprises the project impact analysis, the City requires a "Near Term" analysis that describes the effects of the project on conditions anticipated to exist at the time of certification of the EIR. This Near Term analysis reflects changes anticipated to occur prior to the time of anticipated certification of the EIR. Within that period, which can often span a significant time, other developers could implement previously proposed and/or approved projects, resulting in relatively rapid changes to traffic patterns that existed at the time of circulation of the NOP.

Both the impacts identified in the Near Term analysis and impacts identified in the Existing-Plus-Project analysis are considered direct project impacts by the City.

The “Near Term ” condition analyzes traffic from other known development projects in the area added to existing traffic levels. This reflects the best information available for determining what traffic could potentially be added to the roadway network in the area prior to the anticipated date of certification of the EIR. The term Long Term Cumulative (Year 2030) condition analyzes traffic conditions in the year 2030. The analysis year used for long-term cumulative modeling purposes is the Year 2030, and this analysis assumes SR-56 is widened to six lanes with auxiliary lanes as appropriate and assumes the I-5/SR-56 northbound connector is constructed. SANDAG Series 11 Transportation Model was used to determine the distribution of project traffic and future with project traffic volumes.

Study Results:

Based upon this transportation impact analysis, it was determined that development of the proposed project would have the following impacts:

Impacts:

1.0 DIRECT IMPACTS – EXISTING PLUS PROJECT SCENARIO:

These impacts were determined by comparing existing baseline and existing baseline with project traffic added.

Street Segments:

Project Phase 1 – Phase 1 of the project includes the construction of 100,650 square feet of retail; 515,000 square feet of corporate office, and 21,000 square feet of professional

office. The proposed project in the Existing With Project (Phase 1) scenario has three (3) significant direct street segment project impacts as shown in **Table 1-1**.

Project Phase 1 & 2 – Phase 2 of the project includes an additional 65,610 square feet of retail along with 194 residential units. The proposed project in the Existing With Project (Phase 1 & 2) scenario has three (3) significant direct street segment project impacts as shown in **Table 1-2**, identical to those associated with project phase 1.

Project Build-out – Project Build-out would include Phase 1, 2 & 3 which would add to Phase 2 the construction of 53,740 square feet of retail, 150 room hotel, 414 residential units, and a 10 screen cinema. The proposed project in the Existing With Project (Build-out) has four (4) significant direct street segment project impacts as shown in **Table 1-3**, including three impacts identified in Project Phase 1 & 2 plus one additional impact.

TABLE 1-1
Existing & Existing With Project Street Segment LOS Summary
(Phase 1)

Road	Segment	Class.	Existing			Existing + Project (Phase 1)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,314	0.474	B	22,204	0.493	0.020	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	36,086	0.722	C	37,273	0.745	0.024	NO
	I-5 Southbound Ramps and I-5 Northbound Ramps	5-PA	D	40,090	0.802	D	42,166	0.843	0.042	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	51,625	0.860	E	55,481	0.925	0.064	YES
	High Bluff Drive to Third Avenue	PA	C	37,910	0.632	C	42,360	0.706	0.074	NO
	Third Avenue to First Avenue	PA	C	37,910	0.632	C	41,371	0.690	0.058	NO
	First Avenue to El Camino Real	PA	C	37,910	0.632	C	40,382	0.673	0.041	NO
	El Camino Real to Carmel Country Road	PA	B	32,674	0.545	C	35,344	0.589	0.044	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	21,658	0.361	A	22,943	0.382	0.021	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,071	0.318	A	19,961	0.333	0.015	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,188	0.253	A	15,682	0.261	0.008	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	15,579	1.039	F	15,876	1.058	0.020	YES
	San Dieguito Road to Derby Downs Road	4-M	A	13,915	0.348	A	14,311	0.358	0.010	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,333	0.383	B	15,729	0.393	0.010	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,516	0.338	A	14,010	0.350	0.012	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	A	14,925	0.373	B	15,518	0.388	0.015	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	14,731	0.295	A	16,214	0.324	0.030	NO
	Townsgate Drive to High Bluff Drive	6-M	A	15,425	0.309	A	16,710	0.334	0.026	NO
	High Bluff Drive to Valley Centre Drive	6-M	A	19,364	0.387	B	20,254	0.405	0.018	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	27,589	0.613	C	28,182	0.626	0.013	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	15,932	0.398	B	16,921	0.423	0.025	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	13,878	0.347	A	14,669	0.367	0.020	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,137	0.328	A	13,631	0.341	0.012	NO
	Carmel Canyon Road to SR-56 Westbound Ramps	4-M	B	20,553	0.514	B	20,949	0.524	0.010	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	4-M	A	12,224	0.306	A	12,422	0.311	0.005	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,206	0.280	A	11,503	0.288	0.007	NO
	Carmel Grove Road to SR-56 Westbound Ramps	4-M	A	14,862	0.372	B	15,159	0.379	0.007	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	10,875	0.363	B	10,974	0.366	0.003	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	43,375	0.723	C	43,573	0.726	0.003	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	C	9,842	0.656	D	10,139	0.676	0.020	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	24,400	2.440	F	24,598	2.460	0.020	YES

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

TABLE 1-2

Existing & Existing With Project Street Segment LOS Summary

(Phase 1 & 2)

Road	Segment	Class.	Existing			Existing + Project (Phase 1 & 2)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,314	0.474	B	22,917	0.509	0.036	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	36,086	0.722	C	38,223	0.764	0.043	NO
	I-5 Southbound Ramps and I-5 Northbound Ramps	5-PA	D	40,090	0.802	D	43,831	0.877	0.075	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	51,625	0.860	E	58,572	0.976	0.116	YES
	High Bluff Drive to Third Avenue	PA	C	37,910	0.632	C	45,925	0.765	0.134	NO
	Third Avenue to First Avenue	PA	C	37,910	0.632	C	45,213	0.754	0.122	NO
	First Avenue to El Camino Real	PA	C	37,910	0.632	C	45,213	0.754	0.122	NO
	El Camino Real to Carmel Country Road	PA	B	32,674	0.545	C	37,483	0.625	0.080	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	21,658	0.361	A	23,974	0.400	0.039	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,071	0.318	A	20,674	0.345	0.027	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,188	0.253	A	16,079	0.268	0.015	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	15,579	1.039	F	16,113	1.074	0.036	YES
	San Dieguito Road to Derby Downs Road	4-M	A	13,915	0.348	A	14,627	0.366	0.018	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,333	0.383	B	16,045	0.401	0.018	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,516	0.338	A	14,407	0.360	0.022	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	A	14,925	0.373	B	15,994	0.400	0.027	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	14,731	0.295	A	17,403	0.348	0.053	NO
	Townsgate Drive to High Bluff Drive	6-M	A	15,425	0.309	A	17,741	0.355	0.046	NO
	High Bluff Drive to Valley Centre Drive	6-M	A	19,364	0.387	B	20,967	0.419	0.032	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	27,589	0.613	C	28,658	0.637	0.024	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	15,932	0.398	B	17,713	0.443	0.045	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	13,878	0.347	B	15,303	0.383	0.036	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,137	0.328	A	14,028	0.351	0.022	NO
	Carmel Canyon Road to SR-56 Westbound Ramps	4-M	B	20,553	0.514	C	21,265	0.532	0.018	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	4-M	A	12,224	0.306	A	12,580	0.315	0.009	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,206	0.280	A	11,740	0.294	0.013	NO
	Carmel Grove Road to SR-56 Westbound Ramps	4-M	A	14,862	0.372	B	15,396	0.385	0.013	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	10,875	0.363	B	11,053	0.368	0.006	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	43,375	0.723	C	43,731	0.729	0.006	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	C	9,842	0.656	D	10,376	0.692	0.036	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	24,400	2.440	F	24,756	2.476	0.036	YES

Legend:

LOS= Level of Service
V/C= Volume to Capacity Ratio
ΔV/C= Change in V/C ratio

TABLE 1-3

Existing & Existing With Project Street Segment LOS Summary

(Build-out)

Road	Segment	Class.	Existing			Existing + Project (Buildout)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,314	0.474	B	23,740	0.528	0.054	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	36,086	0.722	C	39,321	0.786	0.065	NO
	I-5 Southbound Ramps and I-5 Northbound Ramps	5-PA	D	40,090	0.802	E	45,752	0.915	0.113	YES
	I-5 Northbound Ramps to High Bluff Drive	PA	D	51,625	0.860	F	62,140	1.036	0.175	YES
	High Bluff Drive to Third Avenue	PA	C	37,910	0.632	D	50,042	0.834	0.202	NO
	Third Avenue to First Avenue	PA	C	37,910	0.632	C	48,964	0.816	0.184	NO
	First Avenue to El Camino Real	PA	C	37,910	0.632	C	48,964	0.816	0.184	NO
	El Camino Real to Carmel Country Road	PA	B	32,674	0.545	C	39,953	0.666	0.121	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	21,658	0.361	B	25,163	0.419	0.058	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,071	0.318	A	21,497	0.358	0.040	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,188	0.253	A	16,536	0.276	0.022	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	15,579	1.039	F	16,388	1.093	0.054	YES
	San Dieguito Road to Derby Downs Road	4-M	A	13,915	0.348	A	14,993	0.375	0.027	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,333	0.383	B	16,411	0.410	0.027	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,516	0.338	A	14,864	0.372	0.034	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	A	14,925	0.373	B	16,543	0.414	0.040	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	14,731	0.295	B	20,123	0.402	0.108	NO
	Townsgate Drive to High Bluff Drive	6-M	A	15,425	0.309	A	18,930	0.379	0.070	NO
	High Bluff Drive to Valley Centre Drive	6-M	A	19,364	0.387	B	21,790	0.436	0.049	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	27,589	0.613	C	29,207	0.649	0.036	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	15,932	0.398	B	18,628	0.466	0.067	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	13,878	0.347	B	16,035	0.401	0.054	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,137	0.328	A	14,485	0.362	0.034	NO
	Carmel Canyon Road to SR-56 Westbound Ramps	4-M	B	20,553	0.514	C	21,631	0.541	0.027	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	4-M	A	12,224	0.306	A	12,763	0.319	0.013	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,206	0.280	A	12,015	0.300	0.020	NO
	Carmel Grove Road to SR-56 Westbound Ramps	4-M	A	14,862	0.372	B	15,671	0.392	0.020	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	10,875	0.363	B	11,145	0.371	0.009	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	43,375	0.723	C	43,914	0.732	0.009	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	C	9,842	0.656	D	10,651	0.710	0.054	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	24,400	2.440	F	24,939	2.494	0.054	YES

Legend:

LOS= Level of Service
V/C= Volume to Capacity Ratio
ΔV/C= Change in V/C ratio

1.1 DIRECT IMPACTS CONTINUED:

Intersections:

Project Phase 1 – The proposed project in the Existing With Project Phase 1 scenario has no significant direct project intersection impacts as shown in **Table 1-4**.

Project Phase 1 & 2 – The proposed project in the Existing With Project Phase 1 & 2 scenario has one (1) significant direct project intersection impact as shown in **Table 1-5**.

Project Build-out – The proposed project in the Existing With Project Build-out scenario has one (1) significant direct project intersection impact as shown in **Table 1-6**, identical to that associated with Project Phase 1 & 2.

Freeway Main-lanes:

Project Phase 1 – The proposed project in the Existing With Project Phase 1 scenario has no significant direct project freeway main-lane impacts as shown in **Table 1-7**.

Project Phase 1 & 2 – The proposed project in the Existing With Project Phase 1 & 2 scenario has no significant direct project freeway main-lane impacts as shown in **Table 1-8**.

Project Build-out – The proposed project in the Existing With Project Build-out scenario has no significant direct project freeway main-lane impacts as shown in **Table 1-9**.

TABLE 1-4

Existing & Existing With Project Intersection LOS Summary

(Phase 1)

#	Intersection	Existing				Existing + Project (Phase 1)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	27.7	C	30.0	C	28.2	C	0.5	No	30.9	C	0.9	No
2	El Camino Real / San Dieguito Road	16.6	B	23.8	C	16.8	B	0.2	No	25.0	C	1.2	No
3	El Camino Real / Derby Downs Road	4.3	A	3.3	A	4.3	A	0.0	No	4.5	A	1.2	No
4	El Camino Real / Half Mile Drive	19.6	B	16.8	B	20.5	C	0.9	No	17.5	B	0.7	No
5	El Camino Real / Quarter Mile Drive	20.0	B	14.0	B	20.1	C	0.1	No	15.0	B	1.0	No
6	Del Mar Heights Road / Mango Drive	31.7	C	29.7	C	32.3	C	0.6	No	31.6	C	1.9	No
7	Del Mar Heights Road / Portofino Drive	9.3	A	9.1	A	9.5	A	0.2	No	9.2	A	0.1	No
8	Del Mar Heights Road / I-5 SB Ramps	22.5	C	20.3	C	24.2	C	1.7	No	22.2	C	1.9	No
9	Del Mar Heights Road / I-5 NB Ramps	35.1	C	37.5	D	36.2	D	1.1	No	38.0	D	0.5	No
10	Del Mar Heights Road / High Bluff Drive	26.1	C	28.9	C	26.6	C	0.5	No	34.2	C	5.3	No
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	5.4	A	N/A	No	10.5	B	N/A	No
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	4.0	A	N/A	No	11.3	B	N/A	No
13	Del Mar Heights Road / El Camino Real	27.2	C	26.9	C	30.6	C	3.4	No	30.3	C	3.4	No
14	Del Mar Heights Road / Carmel Country Rd	22.1	C	24.3	C	24.9	C	2.8	No	24.9	C	0.6	No
15	Del Mar Heights Road / Torrey Ridge Drive	22.7	C	14.9	B	24.0	C	1.3	No	16.6	B	1.7	No
16	Del Mar Heights Road / Lansdale Drive	20.4	C	19.8	B	21.7	C	1.3	No	19.9	B	0.1	No
17	Del Mar Heights Road / Carmel Canyon Rd	13.4	B	9.8	A	13.6	B	0.2	No	9.8	A	0.0	No
18	El Camino Real / Del Mar Highlands Town Ctr.	7.2	A	12.4	B	15.9	B	8.7	No	22.7	C	10.3	No
19	Carmel Country Road / Townsgate Drive	25.8	C	20.2	C	26.4	C	0.6	No	21.7	C	1.5	No
20	El Camino Real / Townsgate Drive	18.2	B	13.0	B	18.5	B	0.3	No	13.8	B	0.8	No
21	Carmel Country Road / Carmel Creek Rd	45.3	D	23.2	C	46.7	D	1.4	No	25.3	C	2.1	No
22	El Camino Real / High Bluff Drive	25.2	C	27.9	C	25.5	C	0.3	No	28.8	C	0.9	No
23	Carmel View Road / High Bluff Drive	8.3	A	9.0	A	8.6	A	0.3	No	9.3	A	0.3	No
24	Carmel Creek Road / Carmel Grove Rd	26.8	C	17.2	B	26.8	C	0.0	No	17.2	B	0.0	No
25	Carmel Valley Road / I-5 SB Ramps	19.6	B	27.0	C	20.0	B	0.4	No	27.7	C	0.7	No
26	Carmel Valley Road / I-5 NB Ramps	12.6	B	18.2	B	12.6	B	0.0	No	18.3	B	0.1	No
27	El Camino Real / Valley Centre Drive	20.9	C	19.7	B	20.9	C	0.0	No	20.1	C	0.4	No
28	El Camino Real / Carmel Valley Rd	14.0	B	16.8	B	14.9	B	0.9	No	20.5	C	3.7	No
29	El Camino Real / SR-56 EB On Ramp	15.4	B	24.4	C	15.6	B	0.2	No	25.3	C	0.9	No
30	Carmel View Road / Valley Centre Drive	6.7	A	7.8	A	6.7	A	0.0	No	7.8	A	0.0	No
31	Carmel Creek Road / SR-56 WB Ramp	37.0	D	20.7	C	38.8	D	1.8	No	20.8	C	0.1	No
32	Carmel Creek Road / SR-56 EB Ramps	11.6	B	19.5	B	11.7	B	0.1	No	25.0	C	5.5	No
33	Carmel Country Road / Carmel Canyon Rd	31.9	C	23.2	C	32.0	C	0.1	No	25.0	C	1.8	No
34	Carmel Country Road / SR-56 WB Ramps	15.7	B	10.9	B	15.8	B	0.1	No	11.3	B	0.4	No
35	Carmel Country Road / SR-56 EB Ramps	13.4	B	11.5	B	13.4	B	0.0	No	11.8	B	0.3	No
36	Carmel Creek Road / Del Mar Trail	41.6	E	20.1	C	43.6	E	2.0	No	20.9	C	0.8	No

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D= Delay

DNE = Does Not Exist

N/A = Not Applicable

TABLE 1-5
Existing & Existing With Project Intersection LOS Summary
(Phase 1 & 2)

#	Intersection	Existing				Existing + Project (Phase 1 & 2)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	27.7	C	30.0	C	28.4	C	0.7	No	32.6	C	2.6	No
2	El Camino Real / San Dieguito Road	16.6	B	23.8	C	16.8	B	0.2	No	25.8	C	2.0	No
3	El Camino Real / Derby Downs Road	4.3	A	3.3	A	4.3	A	0.0	No	4.6	A	1.3	No
4	El Camino Real / Half Mile Drive	19.6	B	16.8	B	20.6	C	1.0	No	17.8	B	1.0	No
5	El Camino Real / Quarter Mile Drive	20.0	B	14.0	B	20.1	C	0.1	No	15.1	B	1.1	No
6	Del Mar Heights Road / Mango Drive	31.7	C	29.7	C	32.5	C	0.8	No	32.3	C	2.6	No
7	Del Mar Heights Road / Portofino Drive	9.3	A	9.1	A	9.5	A	0.2	No	9.3	A	0.2	No
8	Del Mar Heights Road / I-5 SB Ramps	22.5	C	20.3	C	24.8	C	2.3	No	24.0	C	3.7	No
9	Del Mar Heights Road / I-5 NB Ramps	35.1	D	37.5	D	37.7	D	2.6	No	41.2	D	3.7	No
10	Del Mar Heights Road / High Bluff Drive	26.1	C	28.9	C	27.4	C	1.3	No	40.4	D	11.5	No
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	6.8	A	N/A	No	14.1	B	N/A	No
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	6.0	A	N/A	No	15.8	B	N/A	No
13	Del Mar Heights Road / El Camino Real	27.2	C	26.9	C	32.2	C	5.0	No	37.3	D	10.4	No
14	Del Mar Heights Road / Carmel Country Rd	22.1	C	24.3	C	25.5	C	3.4	No	28.6	C	4.3	No
15	Del Mar Heights Road / Torrey Ridge Drive	22.7	C	14.9	B	25.1	C	2.4	No	16.2	B	1.3	No
16	Del Mar Heights Road / Lansdale Drive	20.4	C	19.8	B	22.1	C	1.7	No	23.8	C	4.0	No
17	Del Mar Heights Road / Carmel Canyon Rd	13.4	B	9.8	A	13.6	B	0.2	No	9.9	A	0.1	No
18	El Camino Real / Del Mar Highlands Town Ctr.	7.2	A	12.4	B	17.9	B	10.7	No	26.1	C	13.7	No
19	Carmel Country Road / Townsgate Drive	25.8	C	20.2	C	26.6	C	0.8	No	22.1	C	1.9	No
20	El Camino Real / Townsgate Drive	18.2	B	13.0	B	18.6	B	0.4	No	13.7	B	0.7	No
21	Carmel Country Road / Carmel Creek Rd	45.3	D	23.2	C	47.7	D	2.4	No	25.7	C	2.5	No
22	El Camino Real / High Bluff Drive	25.2	C	27.9	C	25.8	C	0.6	No	30.1	C	2.2	No
23	Carmel View Road / High Bluff Drive	8.3	A	9.0	A	8.6	A	0.3	No	9.5	A	0.5	No
24	Carmel Creek Road / Carmel Grove Rd	26.8	C	17.2	B	26.8	C	0.0	No	17.3	B	0.1	No
25	Carmel Valley Road / I-5 SB Ramps	19.6	B	27.0	C	20.1	C	0.5	No	27.9	C	0.9	No
26	Carmel Valley Road / I-5 NB Ramps	12.6	B	18.2	B	12.6	B	0.0	No	18.4	B	0.2	No
27	El Camino Real / Valley Centre Drive	20.9	C	19.7	B	21.0	C	0.1	No	20.2	C	0.5	No
28	El Camino Real / Carmel Valley Rd	14.0	B	16.8	B	14.9	B	0.9	No	20.6	C	3.8	No
29	El Camino Real / SR-56 EB On Ramp	15.4	B	24.4	C	15.7	B	0.3	No	26.0	C	1.6	No
30	Carmel View Road / Valley Centre Drive	6.7	A	7.8	A	6.7	A	0.0	No	7.8	A	0.0	No
31	Carmel Creek Road / SR-56 WB Ramp	37.0	D	20.7	C	39.0	D	2.0	No	21.5	C	0.8	No
32	Carmel Creek Road / SR-56 EB Ramps	11.6	B	19.5	B	11.8	B	0.2	No	25.6	C	6.1	No
33	Carmel Country Road / Carmel Canyon Rd	31.9	C	23.2	C	32.2	C	0.3	No	25.2	C	2.0	No
34	Carmel Country Road / SR-56 WB Ramps	15.7	B	10.9	B	15.8	B	0.1	No	11.3	B	0.4	No
35	Carmel Country Road / SR-56 EB Ramps	13.4	B	11.5	B	13.4	B	0.0	No	11.9	B	0.4	No
36	Carmel Creek Road / Del Mar Trail	41.6	E	20.1	C	44.5	E	2.9	Yes	21.9	C	1.8	No

Notes:

LOS = Level of Service

DNE = Does Not Exist

Δ = Change

N/A = Not Applicable

S = Significant

D= Delay

TABLE 1-6
Existing & Existing With Project Intersection LOS Summary
(Build-out)

#	Intersection	Existing				Existing + Project (Buildout)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	27.7	C	30.0	C	28.7	C	1.0	No	33.5	C	3.5	No
2	El Camino Real / San Dieguito Road	16.6	B	23.8	C	17.0	B	0.4	No	26.4	C	2.6	No
3	El Camino Real / Derby Downs Road	4.3	A	3.3	A	4.3	A	0.0	No	5.0	A	1.7	No
4	El Camino Real / Half Mile Drive	19.6	B	16.8	B	20.9	C	1.3	No	18.9	B	2.1	No
5	El Camino Real / Quarter Mile Drive	20.0	B	14.0	B	20.4	C	0.4	No	14.4	B	0.4	No
6	Del Mar Heights Road / Mango Drive	31.7	C	29.7	C	32.9	C	1.2	No	33.4	C	3.7	No
7	Del Mar Heights Road / Portofino Drive	9.3	A	9.1	A	9.6	A	0.3	No	9.4	A	0.3	No
8	Del Mar Heights Road / I-5 SB Ramps	22.5	C	20.3	C	25.1	C	2.6	No	25.9	C	5.6	No
9	Del Mar Heights Road / I-5 NB Ramps	35.1	D	37.5	D	40.4	D	5.3	No	51.3	D	13.8	No
10	Del Mar Heights Road / High Bluff Drive	26.1	C	28.9	C	29.1	C	3.0	No	47.2	D	18.3	No
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	8.7	A	N/A	No	21.2	C	N/A	No
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	7.7	A	N/A	No	22.0	C	N/A	No
13	Del Mar Heights Road / El Camino Real	27.2	C	26.9	C	33.6	C	6.4	No	45.5	D	18.6	No
14	Del Mar Heights Road / Carmel Country Rd	22.1	C	24.3	C	26.5	C	4.4	No	36.5	D	12.2	No
15	Del Mar Heights Road / Torrey Ridge Drive	22.7	C	14.9	B	25.3	C	2.6	No	15.4	B	0.5	No
16	Del Mar Heights Road / Lansdale Drive	20.4	C	19.8	B	22.9	C	2.5	No	27.6	C	7.8	No
17	Del Mar Heights Road / Carmel Canyon Rd	13.4	B	9.8	A	13.6	B	0.2	No	10.0	A	0.2	No
18	El Camino Real / Del Mar Highlands Town Ctr.	7.2	A	12.4	B	19.1	B	11.9	No	28.7	C	16.3	No
19	Carmel Country Road / Townsgate Drive	25.8	C	20.2	C	26.9	C	1.1	No	22.7	C	2.5	No
20	El Camino Real / Townsgate Drive	18.2	B	13.0	B	18.8	B	0.6	No	14.1	B	1.1	No
21	Carmel Country Road / Carmel Creek Rd	45.3	D	23.2	C	49.2	D	3.9	No	27.7	C	4.5	No
22	El Camino Real / High Bluff Drive	25.2	C	27.9	C	25.8	C	0.6	No	31.8	C	3.9	No
23	Carmel View Road / High Bluff Drive	8.3	A	9.0	A	8.7	A	0.4	No	9.8	A	0.8	No
24	Carmel Creek Road / Carmel Grove Rd	26.8	C	17.2	B	26.8	C	0.0	No	17.4	B	0.2	No
25	Carmel Valley Road / I-5 SB Ramps	19.6	B	27.0	C	20.1	C	0.5	No	27.6	C	0.6	No
26	Carmel Valley Road / I-5 NB Ramps	12.6	B	18.2	B	12.6	B	0.0	No	18.2	B	0.0	No
27	El Camino Real / Valley Centre Drive	20.9	C	19.7	B	21.1	C	0.2	No	20.2	C	0.5	No
28	El Camino Real / Carmel Valley Rd	14.0	B	16.8	B	14.9	B	0.9	No	20.9	C	4.1	No
29	El Camino Real / SR-56 EB On Ramp	15.4	B	24.4	C	16.1	B	0.7	No	26.5	C	2.1	No
30	Carmel View Road / Valley Centre Drive	6.7	A	7.8	A	6.7	A	0.0	No	7.8	A	0.0	No
31	Carmel Creek Road / SR-56 WB Ramp	37.0	D	20.7	C	39.4	D	2.4	No	21.6	C	0.9	No
32	Carmel Creek Road / SR-56 EB Ramps	11.6	B	19.5	B	11.7	B	0.1	No	26.0	C	6.5	No
33	Carmel Country Road / Carmel Canyon Rd	31.9	C	23.2	C	32.3	C	0.4	No	25.5	C	2.3	No
34	Carmel Country Road / SR-56 WB Ramps	15.7	B	10.9	B	15.8	B	0.1	No	11.4	B	0.5	No
35	Carmel Country Road / SR-56 EB Ramps	13.4	B	11.5	B	13.4	B	0.0	No	12.1	B	0.6	No
36	Carmel Creek Road / Del Mar Trail	41.6	E	20.1	C	46.2	E	4.6	Yes	22.9	C	2.8	No

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D= Delay

N/A = Not Applicable

DNE = Does Not Exist

TABLE 1-7
Existing & Existing With Project Freeway Summary
(Phase 1)

Segment	Lanes	Capacity	Dir.	Existing		Existing + Project (Phase 1)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6319	C	0.6339	C	0.0020	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6523	C	0.6543	C	0.0020	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6447	C	0.6472	C	0.0024	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6655	C	0.6680	C	0.0025	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5565	B	0.5606	B	0.0041	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5744	B	0.5787	B	0.0042	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5746	B	0.5766	B	0.0020	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6290	C	0.6312	C	0.0022	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5582	B	0.5597	B	0.0015	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5482	B	0.5497	B	0.0015	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8144	D	0.8164	D	0.0020	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8352	D	0.8372	D	0.0020	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7641	C	0.7661	C	0.0020	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.7836	C	0.7857	C	0.0020	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP = # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln

#-M = # of Managed Lanes (Capacity for LOS "C" assumed at 1680 veh/hr/ln taken from Caltrans Guide, December 2002)

#-AX = # of Auxiliary lane with LOS E capacity of 1,800 veh/hr/ln

#-HOV = # of High Occupancy Vehicle lane with LOS E capacity of 1,600 veh/hr/ln

TABLE 1-8
Existing & Existing With Project Freeway Summary
(Phase 1 & 2)

Segment	Lanes	Capacity	Dir.	Existing		Existing + Project (Phase 1 & 2)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6319	C	0.6355	C	0.0035	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6523	C	0.6560	C	0.0037	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6447	C	0.6491	C	0.0043	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6655	C	0.6700	C	0.0045	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5565	B	0.5639	B	0.0074	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5744	B	0.5820	B	0.0076	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5746	B	0.5781	B	0.0036	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6290	C	0.6329	C	0.0039	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5582	B	0.5610	B	0.0028	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5482	B	0.5509	B	0.0027	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8144	D	0.8180	D	0.0036	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8352	D	0.8388	D	0.0037	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7641	C	0.7677	C	0.0036	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.7836	C	0.7873	C	0.0037	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP = # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln

#-M = # of Managed Lanes (Capacity for LOS "C" assumed at 1680 veh/hr/ln taken from Caltrans Guide, December 2002)

#-AX = # of Auxiliary lane with LOS E capacity of 1,800 veh/hr/ln

#-HOV = # of High Occupancy Vehicle lane with LOS E capacity of 1,600 veh/hr/ln

TABLE 1-9
Existing & Existing With Project Freeway Summary
(Build-out)

Segment	Lanes	Capacity	Dir.	Existing		Existing + Project (Build-out)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6319	C	0.6373	C	0.0054	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6523	C	0.6579	C	0.0055	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6447	C	0.6513	C	0.0066	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6655	C	0.6723	C	0.0068	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5565	B	0.5677	B	0.0112	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5744	B	0.5860	B	0.0116	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5746	B	0.5800	B	0.0054	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6290	C	0.6349	C	0.0059	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5582	B	0.5624	B	0.0042	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5482	B	0.5523	B	0.0041	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8144	D	0.8198	D	0.0054	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8352	D	0.8407	D	0.0056	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7641	C	0.7696	C	0.0054	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.7836	C	0.7892	C	0.0056	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP = # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln

#-M = # of Managed Lanes (Capacity for LOS "C" assumed at 1680 veh/hr/ln taken from Caltrans Guide, December 2002)

#-AX = # of Auxiliary lane with LOS E capacity of 1,800 veh/hr/ln

#-HOV = # of High Occupancy Vehicle lane with LOS E capacity of 1,600 veh/hr/ln

1.2 DIRECT IMPACTS CONTINUED:

Freeway Ramp Meters:

Project Phase 1 – The proposed project in the Existing With Project Phase 1 scenario has no significant direct project freeway ramp meter impacts as shown in **Table 1-10**.

Project Phase 1 & 2 – The proposed project in the Existing With Project Phase 1 & 2 scenario has no significant direct project freeway ramp meter impacts as shown in **Table 1-11**.

Project Build-out – The proposed project in the Existing With Project Build-out scenario has no significant direct project freeway ramp meter impacts as shown in **Table 1-12**.

TABLE 1-10
Existing & Existing With Project Ramp Meter Summary
(Phase 1)

Most Restrictive Meter Rate

Location		Existing		Existing + Project (Phase 1)		Δ	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	6.20	1,102	8.07	1,436	1.88	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	0.00	0	0.00	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**.

TABLE 1-11
Existing & Existing With Project Ramp Meter Summary
(Phase 1 & 2)

Most Restrictive Meter Rate

Location		Existing		Existing + Project (Phase 1 & 2)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	6.20	1,102	10.76	1,914	4.57	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	0.00	0	0.00	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**.

TABLE 1-12
Existing & Existing With Project Ramp Meter Summary
(Build-out)

Most Restrictive Meter Rate

Location		Existing		Existing With Project (Buildout)		Δ	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	6.20	1,102	13.53	2,407	7.34	NO
	PM	0.00	0	3.99	711	3.99	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	0.00	0	0.00	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, if change in delay is greater than 2 minutes and delay is greater than 15 minutes

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**.

15 Minute Max. Meter Rate

Location		Existing		Existing With Project (Buildout)		Δ	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	0.0	0	22.0	3,509	22.0	NO
	PM	0.0	0	37.3	4,365	37.3	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.0	0	15.0	2,088	15.0	NO
	PM	0.0	0	15.0	1,175	15.0	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.0	NO
	PM	0.0	0	22.0	4,611	22.0	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

1.3 DIRECT IMPACTS CONTINUED—NEAR TERM SCENARIO:

These impacts were determined by comparing Near Term and Near Term with project traffic added by phase.

Street Segments:

Project Phase 1 – The proposed project in the Near Term With Project Phase 1 scenario has three (3) significant direct street segment impacts as shown in **Table 1-13**.

Project Phase 1 & 2 – The proposed project in the Near Term With Project Phase 1 & 2 scenario has three (3) significant direct street segment impacts as shown in **Table 1-14**, identical to those associated with Project Phase 1.

Project Build-out – The proposed project in the Near Term With Project Build-out scenario has four (4) significant direct street segment impacts as shown in **Table 1-15**, including three impacts identified in Project Phase 1 & 2 plus one additional impact.

Intersections:

Project Phase 1 – The proposed project in the Near Term With Project Phase 1 scenario has one (1) significant direct intersection impacts as shown in **Table 1-16**.

TABLE 1-13

Near Term With & Without Project Street Segment LOS Summary

(Phase 1)

Road	Segment	Class.	Near Term			Near Term + Project (Phase 1)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,953	0.488	B	22,843	0.508	0.020	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	37,169	0.743	C	38,355	0.767	0.024	NO
	I-5 SB Ramps and I-5 NB Ramps	5-PA	D	41,213	0.824	D	43,289	0.866	0.042	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	54,775	0.913	E	58,631	0.977	0.064	YES
	High Bluff Drive to Third Avenue	PA	C	40,648	0.677	C	45,098	0.752	0.074	NO
	Third Avenue to First Avenue	PA	C	40,648	0.677	C	44,109	0.735	0.058	NO
	First Avenue to El Camino Real	PA	C	40,648	0.677	C	43,120	0.719	0.041	NO
	El Camino Real to Carmel Country Road	PA	B	33,654	0.561	C	36,324	0.605	0.044	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	22,308	0.372	A	23,593	0.393	0.021	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,643	0.327	A	20,533	0.342	0.015	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,644	0.261	A	16,138	0.269	0.008	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	16,235	1.082	F	16,532	1.102	0.020	YES
	San Dieguito Road to Derby Downs Road	4-M	A	14,332	0.358	A	14,728	0.368	0.010	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,793	0.395	B	16,189	0.405	0.010	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,921	0.348	A	14,416	0.360	0.012	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	B	15,373	0.384	B	15,966	0.399	0.015	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	17,014	0.340	A	18,497	0.370	0.030	NO
	Townsgate Drive to High Bluff Drive	6-M	A	16,662	0.333	A	17,947	0.359	0.026	NO
	High Bluff Drive to Valley Centre Drive	6-M	B	21,035	0.421	B	21,925	0.438	0.018	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	30,131	0.670	C	30,724	0.683	0.013	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	16,410	0.410	B	17,399	0.435	0.025	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	14,294	0.357	B	15,085	0.377	0.020	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,531	0.338	A	14,026	0.351	0.012	NO
	Carmel Canyon Road to SR-56 WB Ramps	4-M	C	21,170	0.529	C	21,565	0.539	0.010	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	4-M	A	12,591	0.315	A	12,788	0.320	0.005	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,542	0.289	A	11,839	0.296	0.007	NO
	Carmel Grove Road to SR-56 WB Ramps	4-M	B	15,933	0.398	B	16,230	0.406	0.007	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	11,826	0.394	B	11,925	0.398	0.003	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	45,968	0.766	C	46,166	0.769	0.003	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	D	10,137	0.676	D	10,434	0.696	0.020	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	26,732	2.673	F	26,930	2.693	0.020	YES

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

5-M = 5 lane Major with LOS E capacity of 45,000 ADT

5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

4-M=4 lane Major

PA = 6 lane Primary Arterial

2-Ca=2 lane collector

6-M = 6 lane Major

2-Cb = 2 lane Collector with no fronting property

TABLE 1-14
Near Term With & Without Project Street Segment LOS Summary
(Phase 1 & 2)

Road	Segment	Class.	Near Term			Near Term + Project (Phase 1 & 2)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,953	0.488	B	23,557	0.523	0.036	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	37,169	0.743	C	39,306	0.786	0.043	NO
	I-5 SB Ramps and I-5 NB Ramps	5-PA	D	41,213	0.824	D	44,953	0.899	0.075	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	54,775	0.913	F	61,721	1.029	0.116	YES
	High Bluff Drive to Third Avenue	PA	C	40,648	0.677	C	48,664	0.811	0.134	NO
	Third Avenue to First Avenue	PA	C	40,648	0.677	C	47,951	0.799	0.122	NO
	First Avenue to El Camino Real	PA	C	40,648	0.677	C	47,951	0.799	0.122	NO
	El Camino Real to Carmel Country Road	PA	B	33,654	0.561	C	38,463	0.641	0.080	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	22,308	0.372	A	24,623	0.410	0.039	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,643	0.327	A	21,246	0.354	0.027	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,644	0.261	A	16,534	0.276	0.015	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	16,235	1.082	F	16,770	1.118	0.036	YES
	San Dieguito Road to Derby Downs Road	4-M	A	14,332	0.358	B	15,045	0.376	0.018	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,793	0.395	B	16,505	0.413	0.018	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,921	0.348	A	14,812	0.370	0.022	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	B	15,373	0.384	B	16,441	0.411	0.027	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	17,014	0.340	A	19,686	0.394	0.053	NO
	Townsgate Drive to High Bluff Drive	6-M	A	16,662	0.333	A	18,977	0.380	0.046	NO
	High Bluff Drive to Valley Centre Drive	6-M	B	21,035	0.421	B	22,638	0.453	0.032	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	30,131	0.670	C	31,199	0.693	0.024	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	16,410	0.410	B	18,191	0.455	0.045	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	14,294	0.357	B	15,719	0.393	0.036	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,531	0.338	A	14,422	0.361	0.022	NO
	Carmel Canyon Road to SR-56 WB Ramps	4-M	C	21,170	0.529	C	21,882	0.547	0.018	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	4-M	A	12,591	0.315	A	12,947	0.324	0.009	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,542	0.289	A	12,077	0.302	0.013	NO
	Carmel Grove Road to SR-56 WB Ramps	4-M	B	15,933	0.398	B	16,467	0.412	0.013	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	11,826	0.394	B	12,004	0.400	0.006	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	45,968	0.766	C	46,324	0.772	0.006	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	D	10,137	0.676	D	10,672	0.711	0.036	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	26,732	2.673	F	27,088	2.709	0.036	YES

Legend:

LOS= Level of Service
V/C= Volume to Capacity Ratio
ΔV/C= Change in V/C ratio

5-M = 5 lane Major with LOS E capacity of 45,000 ADT
5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT
4-M=4 lane Major
2-Ca=2 lane collector
2-Cb = 2 lane Collector with no fronting property

PA = 6 lane Primary Arterial
6-M = 6 lane Major

TABLE 1-15
Near Term With & Without Project Street Segment LOS Summary
(Build-out)

Road	Segment	Class.	Near Term			Near Term + Project (Build-out)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,953	0.488	B	24,013	0.534	0.046	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	37,169	0.743	D	40,404	0.808	0.065	NO
	I-5 SB Ramps and I-5 NB Ramps	5-PA	D	41,213	0.824	E	46,874	0.937	0.113	YES
	I-5 Northbound Ramps to High Bluff Drive	PA	D	54,775	0.913	F	65,290	1.088	0.175	YES
	High Bluff Drive to Third Avenue	PA	C	40,648	0.677	D	52,781	0.880	0.202	NO
	Thirth Avenue to First Avenue	PA	C	40,648	0.677	D	51,702	0.862	0.184	NO
	First Avenue to El Camino Real	PA	C	40,648	0.677	D	51,702	0.862	0.184	NO
	El Camino Real to Carmel Country Road	PA	B	33,654	0.561	C	41,473	0.691	0.130	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	22,308	0.372	B	25,813	0.430	0.058	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,643	0.327	A	22,070	0.368	0.040	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,644	0.261	A	16,992	0.283	0.022	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	16,235	1.082	F	17,044	1.136	0.054	YES
	San Dieguito Road to Derby Downs Road	4-M	A	14,332	0.358	B	15,411	0.385	0.027	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,793	0.395	B	16,871	0.422	0.027	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,921	0.348	B	15,270	0.382	0.034	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	B	15,373	0.384	B	16,990	0.425	0.040	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	17,014	0.340	B	22,406	0.448	0.108	NO
	Townsgate Drive to High Bluff Drive	6-M	A	16,662	0.333	B	20,167	0.403	0.070	NO
	High Bluff Drive to Valley Centre Drive	6-M	B	21,035	0.421	B	23,461	0.469	0.049	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	30,131	0.670	C	31,748	0.706	0.036	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	16,410	0.410	B	19,106	0.478	0.067	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	14,294	0.357	B	16,451	0.411	0.054	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,531	0.338	A	14,879	0.372	0.034	NO
	Carmel Canyon Road to SR-56 WB Ramps	4-M	C	21,170	0.529	C	22,248	0.556	0.027	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	4-M	A	12,591	0.315	A	13,130	0.328	0.013	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,542	0.289	A	12,351	0.309	0.020	NO
	Carmel Grove Road to SR-56 WB Ramps	4-M	B	15,933	0.398	B	16,742	0.419	0.020	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	11,826	0.394	B	12,096	0.403	0.009	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	45,968	0.766	C	46,507	0.775	0.009	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	D	10,137	0.676	D	10,946	0.730	0.054	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	26,732	2.673	F	27,271	2.727	0.054	YES

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

5-M = 5 lane Major with LOS E capacity of 45,000 ADT

5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

4-M=4 lane Major

PA = 6 lane Primary Arterial

2-Ca=2 lane collector

6-M = 6 lane Major

2-Cb = 2 lane Collector with no fronting property

TABLE 1-16

Near Term With & Without Project Intersection LOS Summary

(Phase 1)

#	Intersection	Near Term				Near Term + Project (Phase 1)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	31.4	C	38.8	D	31.9	C	0.5	N	40.6	D	1.8	N
2	El Camino Real / San Dieguito Road	16.9	B	25.2	C	17.1	B	0.2	N	27.3	C	2.1	N
3	El Camino Real / Derby Downs Road	4.3	A	4.5	A	4.3	A	0.0	N	5.0	A	0.5	N
4	El Camino Real / Half Mile Drive	20.6	B	14.0	B	21.7	C	1.1	N	14.1	B	0.1	N
5	El Camino Real / Quarter Mile Drive	20.6	C	15.1	B	21.8	C	1.2	N	15.5	B	0.4	N
6	Del Mar Heights Road / Mango Drive	33.3	C	31.4	C	34.2	C	0.9	N	33.5	D	2.1	N
7	Del Mar Heights Road / Portofino Drive	9.4	A	9.2	A	9.6	A	0.2	N	9.3	A	0.1	N
8	Del Mar Heights Road / I-5 SB Ramps	24.8	C	23	C	29.6	C	4.8	N	24.6	C	1.6	N
9	Del Mar Heights Road / I-5 NB Ramps	39.6	D	38.3	D	49.2	D	9.6	N	43.5	D	5.2	N
10	Del Mar Heights Road / High Bluff Drive	28.5	C	32.1	C	28.9	C	0.4	N	41.3	D	9.2	N
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	5.9	A	0.0	N	10	A	0.0	N
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	4.2	A	0.0	N	10.7	B	0.0	N
13	Del Mar Heights Road / El Camino Real	29.9	C	29.5	C	32.1	C	2.2	N	37	D	7.5	N
14	Del Mar Heights Road / Carmel Country Rd	22.9	C	21.1	C	25.7	C	2.8	N	23.5	C	2.4	N
15	Del Mar Heights Road / Torrey Ridge Drive	23.6	C	11.9	B	24.8	C	1.2	N	16.4	B	4.5	N
16	Del Mar Heights Road / Lansdale Drive	19	B	17.6	B	20.4	C	1.4	N	18.3	B	0.7	N
17	Del Mar Heights Road / Carmel Canyon Rd	13.8	B	10.2	B	13.9	B	0.1	N	10.3	B	0.1	N
18	El Camino Real / Del Mar Highlands Town Ctr.	6.8	A	13.5	B	14	B	7.2	N	22.6	A	9.1	N
19	Carmel Country Road / Townsgate Drive	26.5	C	21.8	C	27.2	C	0.7	N	27.2	C	5.4	N
20	El Camino Real / Townsgate Drive	21.3	C	20.7	C	21.3	C	0.0	N	20.7	C	0.0	N
21	Carmel Country Road / Carmel Creek Rd	58.6	E	24.1	C	60.4	E	1.8	N	26.1	C	2.0	N
22	El Camino Real / High Bluff Drive	21.1	C	26.2	C	23.3	C	2.2	N	27.7	C	1.5	N
23	Carmel View Road / High Bluff Drive	8.4	A	9.1	A	8.6	A	0.2	N	9.5	A	0.4	N
24	Carmel Creek Road / Carmel Grove Rd	27.8	C	17.5	B	27.8	C	0.0	N	17.6	B	0.1	N
25	Carmel Valley Road / I-5 SB Ramps	22.6	C	32.1	C	23.1	C	0.5	N	32.2	C	0.1	N
26	Carmel Valley Road / I-5 NB Ramps	13.6	B	20.4	C	13.7	B	0.1	N	20.5	C	0.1	N
27	El Camino Real / Valley Centre Drive	24.6	C	23.2	C	25	C	0.4	N	29.7	C	6.5	N
28	El Camino Real / Carmel Valley Rd	14.8	B	19.2	B	16.4	B	1.6	N	19.6	B	0.4	N
29	El Camino Real / SR-56 EB On Ramp	18	B	32.3	C	18.2	B	0.2	N	34	C	1.7	N
30	Carmel View Road / Valley Centre Drive	7.4	A	8.3	A	7.4	A	0.0	N	8.3	A	0.0	N
31	Carmel Creek Road / SR-56 WB Ramp	45.7	D	27	C	46.3	D	0.6	N	27.1	C	0.1	N
32	Carmel Creek Road / SR-56 EB Ramps	12.5	B	27.4	C	12.6	B	0.1	N	27.5	C	0.1	N
33	Carmel Country Road / Carmel Canyon Rd	33.1	C	25.6	C	35.7	D	2.6	N	25.9	C	0.3	N
34	Carmel Country Road / SR-56 WB Ramps	16.2	B	10.9	B	16.3	B	0.1	N	11.4	B	0.5	N
35	Carmel Country Road / SR-56 EB Ramps	14.1	B	11.7	B	14.1	B	0.0	N	11.9	B	0.2	N
36	Carmel Creek Road / Del Mar Trail	47.9	E	21.7	C	50.8	F	2.9	Y	22.6	C	0.9	N

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

DNE = Does not Exist

For Intersection #36, the worst approach delay and level of service was reported.

1.4 DIRECT IMPACTS CONTINUED—NEAR TERM SCENARIO:

Intersections Cont.:

Project Phase 1 & 2 – The proposed project in the Near Term With Project Phase 1 & 2 scenario has three (3) significant direct intersection impacts as shown in **Table 1-17**, including the impact identified in Project Phase 1 plus two additional impacts.

Project Build-out – The proposed project in the Near Term With Project Build-out scenario has four (4) significant direct intersection impacts as shown in **Table 1-18**, including three (3) impacts identified in Project Phase 1 & 2 plus one additional impact.

Freeway Main-lanes:

Project Phase 1 – The proposed project in the Near Term With Project Phase 1 scenario has no significant direct freeway main-lane impacts as shown in **Table 1-19**.

Project Phase 1 & 2 – The proposed project in the Near Term With Project Phase 1 & 2 scenario has no significant direct freeway main-lane impacts as shown in **Table 1-20**.

Project Build-out – The proposed project in the Near Term With Project Build-out has no significant direct freeway main-lane impacts as shown in **Table 1-21**.

TABLE 1-17

Near Term With & Without Project Intersection LOS Summary

(Phase 1 & 2)

#	Intersection	Near Term				Near Term + Project (Phase 1 & 2)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	31.4	C	38.8	D	32.2	C	0.8	N	42.5	D	3.7	N
2	El Camino Real / San Dieguito Road	16.9	B	25.2	C	17.3	B	0.4	N	26.9	C	1.7	N
3	El Camino Real / Derby Downs Road	4.3	A	4.5	A	4.3	A	0.0	N	5.0	A	0.5	N
4	El Camino Real / Half Mile Drive	20.6	B	14.0	B	21.8	C	1.2	N	14.2	B	0.2	N
5	El Camino Real / Quarter Mile Drive	20.6	C	15.1	B	20.6	C	0.0	N	16.4	B	1.3	N
6	Del Mar Heights Road / Mango Drive	33.3	C	31.4	C	34.5	C	1.2	N	34.3	C	2.9	N
7	Del Mar Heights Road / Portofino Drive	9.4	A	9.2	A	9.6	A	0.2	N	9.4	A	0.2	N
8	Del Mar Heights Road / I-5 SB Ramps	24.8	C	23	C	28.7	C	3.9	N	27.8	C	4.8	N
9	Del Mar Heights Road / I-5 NB Ramps	39.6	D	38.3	D	49.8	D	10.2	N	50.5	D	12.2	N
10	Del Mar Heights Road / High Bluff Drive	28.5	C	32.1	C	31.3	C	2.8	N	56.2	E	24.1	Y
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	6.5	A	0.0	N	13.5	B	0.0	N
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	6	A	0.0	N	15.6	B	0.0	N
13	Del Mar Heights Road / El Camino Real	29.9	C	29.5	C	34.5	C	4.6	N	59.1	E	29.6	Y
14	Del Mar Heights Road / Carmel Country Rd	22.9	C	21.1	C	26.4	C	3.5	N	25.6	C	4.5	N
15	Del Mar Heights Road / Torrey Ridge Drive	23.6	C	11.9	B	26.0	C	2.4	N	11.9	B	0.0	N
16	Del Mar Heights Road / Lansdale Drive	19.0	B	17.6	B	20.4	C	1.4	N	18.4	B	0.8	N
17	Del Mar Heights Road / Carmel Canyon Rd	13.8	B	10.2	B	14.0	B	0.2	N	10.2	B	0.0	N
18	El Camino Real / Del Mar Highlands Town Ctr.	6.8	A	13.5	B	14.3	B	7.5	N	27.5	C	14.0	N
19	Carmel Country Road / Townsgate Drive	26.5	C	21.8	C	27.4	C	0.9	N	22.6	C	0.8	N
20	El Camino Real / Townsgate Drive	21.3	C	20.7	C	21.3	C	0.0	N	20.9	C	0.2	N
21	Carmel Country Road / Carmel Creek Rd	58.6	E	24.1	C	60.4	E	1.8	N	27.4	C	3.3	N
22	El Camino Real / High Bluff Drive	21.1	C	26.2	C	21.6	C	0.5	N	29.0	C	2.8	N
23	Carmel View Road / High Bluff Drive	8.4	A	9.1	A	8.7	A	0.3	N	9.7	A	0.6	N
24	Carmel Creek Road / Carmel Grove Rd	27.8	C	17.5	B	27.8	C	0.0	N	17.7	B	0.2	N
25	Carmel Valley Road / I-5 SB Ramps	22.6	C	32.1	C	22.8	C	0.2	N	32.6	C	0.5	N
26	Carmel Valley Road / I-5 NB Ramps	13.6	B	20.4	C	14.1	B	0.5	N	20.6	C	0.2	N
27	El Camino Real / Valley Centre Drive	24.6	C	23.2	C	32.7	C	8.1	N	29.8	C	6.6	N
28	El Camino Real / Carmel Valley Rd	14.8	B	19.2	B	15	B	0.2	N	19.8	B	0.6	N
29	El Camino Real / SR-56 EB On Ramp	18.0	B	32.3	C	18.6	B	0.6	N	35.1	D	2.8	N
30	Carmel View Road / Valley Centre Drive	7.4	A	8.3	A	7.4	A	0.0	N	8.3	A	0.0	N
31	Carmel Creek Road / SR-56 WB Ramp	45.7	D	27	C	46.6	D	0.9	N	30.6	C	3.6	N
32	Carmel Creek Road / SR-56 EB Ramps	12.5	B	27.4	C	12.6	B	0.1	N	27.6	C	0.2	N
33	Carmel Country Road / Carmel Canyon Rd	33.1	C	25.6	C	35.9	D	2.8	N	25.6	C	0.0	N
34	Carmel Country Road / SR-56 WB Ramps	16.2	B	10.9	B	16.2	B	0.0	N	12.3	B	1.4	N
35	Carmel Country Road / SR-56 EB Ramps	14.1	B	11.7	B	14.3	B	0.2	N	12.1	B	0.4	N
36	Carmel Creek Road / Del Mar Trail	47.9	E	21.7	C	52.0	F	4.1	Y	23.8	C	2.1	N

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

DNE = Does not Exist

For Intersection #36, the worst approach delay and level of service is reported.

TABLE 1-18

Near Term With & Without Project Intersection LOS Summary

(Build-out)

#	Intersection	Near Term				Near Term + Project (Build-out)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	31.4	C	38.8	D	32.5	C	1.1	N	45.3	D	6.5	N
2	El Camino Real / San Dieguito Road	16.9	B	25.2	C	17.4	B	0.5	N	27.6	C	2.4	N
3	El Camino Real / Derby Downs Road	4.3	A	4.5	A	4.3	A	0.0	N	5	A	0.5	N
4	El Camino Real / Half Mile Drive	20.6	B	14.0	B	22.4	C	1.8	N	14.2	B	0.2	N
5	El Camino Real / Quarter Mile Drive	20.6	C	15.1	B	20.6	C	0.0	N	17.9	B	2.8	N
6	Del Mar Heights Road / Mango Drive	33.3	C	31.4	C	35.1	D	1.8	N	35.9	D	4.5	N
7	Del Mar Heights Road / Portofino Drive	9.4	A	9.2	A	9.6	A	0.2	N	9.4	A	0.2	N
8	Del Mar Heights Road / I-5 SB Ramps	24.8	C	23	C	29.9	C	5.1	N	28.5	C	5.5	N
9	Del Mar Heights Road / I-5 NB Ramps	39.6	D	38.3	D	49.2	D	9.6	N	56.1	E	17.8	Y
10	Del Mar Heights Road / High Bluff Drive	28.5	C	32.1	C	34.2	C	5.7	N	57	E	24.9	Y
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	8.5	A	0.0	N	21.4	C	0.0	N
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	7.9	A	0.0	N	25.3	C	0.0	N
13	Del Mar Heights Road / El Camino Real	29.9	C	29.5	C	37.4	D	7.5	N	62.9	E	33.4	Y
14	Del Mar Heights Road / Carmel Country Rd	22.9	C	21.1	C	27.3	C	4.4	N	28.2	C	7.1	N
15	Del Mar Heights Road / Torrey Ridge Drive	23.6	C	11.9	B	26.3	C	2.7	N	12	B	0.1	N
16	Del Mar Heights Road / Lansdale Drive	19.0	B	17.6	B	20.8	C	1.8	N	19.7	B	2.1	N
17	Del Mar Heights Road / Carmel Canyon Rd	13.8	B	10.2	B	14	B	0.2	N	10.7	B	0.5	N
18	El Camino Real / Del Mar Highlands Town Ctr.	6.8	A	13.5	B	15.6	B	8.8	N	30.8	C	17.3	N
19	Carmel Country Road / Townsgate Drive	26.5	C	21.8	C	27.7	C	1.2	N	23.2	C	1.4	N
20	El Camino Real / Townsgate Drive	21.3	C	20.7	C	21.6	C	0.3	N	22.3	C	1.6	N
21	Carmel Country Road / Carmel Creek Rd	58.6	E	24.1	C	60.4	E	1.8	N	28.6	C	4.5	N
22	El Camino Real / High Bluff Drive	21.1	C	26.2	C	22.2	C	1.1	N	30.6	C	4.4	N
23	Carmel View Road / High Bluff Drive	8.4	A	9.1	A	8.8	A	0.4	N	10	A	0.9	N
24	Carmel Creek Road / Carmel Grove Rd	27.8	C	17.5	B	27.9	C	0.1	N	17.9	B	0.4	N
25	Carmel Valley Road / I-5 SB Ramps	22.6	C	32.1	C	23	C	0.4	N	33.1	C	1.0	N
26	Carmel Valley Road / I-5 NB Ramps	13.6	B	20.4	C	14.1	B	0.5	N	20.8	C	0.4	N
27	El Camino Real / Valley Centre Drive	24.6	C	23.2	C	32.9	C	8.3	N	30.5	C	7.3	N
28	El Camino Real / Carmel Valley Rd	14.8	B	19.2	B	15.1	B	0.3	N	20	B	0.8	N
29	El Camino Real / SR-56 EB On Ramp	18.0	B	32.3	C	18.8	B	0.8	N	35.8	D	3.5	N
30	Carmel View Road / Valley Centre Drive	7.4	A	8.3	A	7.4	A	0.0	N	8.3	A	0.0	N
31	Carmel Creek Road / SR-56 WB Ramp	45.7	D	27	C	46.8	D	1.1	N	30.8	C	3.8	N
32	Carmel Creek Road / SR-56 EB Ramps	12.5	B	27.4	C	12.6	B	0.1	N	27.8	C	0.4	N
33	Carmel Country Road / Carmel Canyon Rd	33.1	C	25.6	C	35.9	D	2.8	N	25.8	C	0.2	N
34	Carmel Country Road / SR-56 WB Ramps	16.2	B	10.9	B	16.2	B	0.0	N	12.4	B	1.5	N
35	Carmel Country Road / SR-56 EB Ramps	14.1	B	11.7	B	14.3	B	0.2	N	12.2	B	0.5	N
36	Carmel Creek Road / Del Mar Trail	47.9	E	21.7	C	53.5	F	5.6	Y	25.1	D	3.4	N

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

DNE = Does not Exist

For Intersection #36, the worst approach delay and level of service is reported.

TABLE 1-19
Near Term With & Without Project Freeway Summary
(Phase 1)

Segment	Lanes	Capacity	Dir.	Near Term		Near Term with Project (Phase 1)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6354	C	0.6374	C	0.0020	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6558	C	0.6578	C	0.0020	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6481	C	0.6505	C	0.0024	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6688	C	0.6713	C	0.0025	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5596	B	0.5637	B	0.0041	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5774	B	0.5817	B	0.0042	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5778	B	0.5798	B	0.0020	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6325	C	0.6347	C	0.0022	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5613	B	0.5628	B	0.0015	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5512	B	0.5528	B	0.0015	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8461	D	0.8481	D	0.0020	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8676	D	0.8697	D	0.0020	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7881	C	0.7901	D	0.0020	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.8082	D	0.8102	D	0.0020	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP= # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln.

#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1,680 veh/hr/ln taken from Caltrans Guide, December 2002)

AX = Auxiliary Lane with LOS "E" capacity of 1,800 veh/hr/ln.

HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 veh/hr/ln.

TABLE 1-20
Near Term With & Without Project Freeway Summary
(Phase 1 & 2)

Segment	Lanes	Capacity	Dir.	Near Term		Near Term + Project (Phase 1 & 2)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6354	C	0.6390	C	0.0035	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6558	C	0.6594	C	0.0037	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6481	C	0.6524	C	0.0043	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6688	C	0.6733	C	0.0045	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5596	B	0.5670	B	0.0074	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5774	B	0.5851	B	0.0076	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5778	B	0.5813	B	0.0036	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6325	C	0.6364	C	0.0039	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5613	B	0.5641	B	0.0028	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5512	B	0.5540	B	0.0027	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8461	D	0.8496	D	0.0036	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8676	D	0.8713	D	0.0037	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7881	C	0.7917	D	0.0036	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.8082	D	0.8118	D	0.0037	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP= # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln.

#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1,680 veh/hr/ln taken from Caltrans Guide, December 2002)

AX = Auxiliary Lane with LOS "E" capacity of 1,800 veh/hr/ln.

HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 veh/hr/ln.

TABLE 1-21
Near Term With & Without Project Freeway Summary
(Build-out)

Segment	Lanes	Capacity	Dir.	Near Term		Near Term + Project (Build-out)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6354	C	0.6408	C	0.0054	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6558	C	0.6613	C	0.0055	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6481	C	0.6546	C	0.0066	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6688	C	0.6756	C	0.0068	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5596	B	0.5708	B	0.0112	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5774	B	0.5890	B	0.0116	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5778	B	0.5832	B	0.0054	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6325	C	0.6384	C	0.0059	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5613	B	0.5655	B	0.0042	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5512	B	0.5554	B	0.0041	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8461	D	0.8507	D	0.0046	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8676	D	0.8723	D	0.0047	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7881	C	0.7927	D	0.0046	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.8082	D	0.8129	D	0.0047	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP= # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln.

#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1,680 veh/hr/ln taken from Caltrans Guide, December 2002)

AX = Auxiliary Lane with LOS "E" capacity of 1,800 veh/hr/ln.

HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 veh/hr/ln.

Freeway Ramp Meters:

Project Phase 1 – The proposed project in the Near Term With Project Phase 1 scenario has no significant direct freeway ramp meter impacts as shown in **Table 1-22**.

Project Phase 1 & 2 – The proposed project in the Near Term With Project Phase 1 & 2 scenario has no significant direct freeway ramp meter impacts as shown in **Table 1-23**.

Project Build-out – The proposed project in the Near Term With Project Build-out scenario has no significant direct freeway ramp meter impacts as shown in **Table 1-24**.

TABLE 1-22

Near Term With & Without Project Ramp Meter Summary

(Phase 1)

Most Restrictive Meter Rate

Location		Near Term		Near Term + Project (Phase 1)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	9.29	1,653	11.17	1,987	1.88	NO
	PM	0.00	0	3.42	609	3.42	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	1.26	363	1.26	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

Meter rates are based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

TABLE 1-23
Near Term With & Without Project Ramp Meter Summary
(Phase 1 & 2)

Most Restrictive Meter Rate

Location		Near Term		Near Term + Project (Phase 1 & 2)		Δ	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
		Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	9.29	1,653		
	PM	0.00	0	10.52	1,871	10.52	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	3.14	899	3.14	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

Meter rates are based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

TABLE 1-24
Near Term With & Without Project Ramp Meter Summary
(Build-out)

Most Restrictive Meter Rate

Location		Near Term		Near Term + Project (Buildout)		Δ	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	9.29	1,653	16.63	2,958	7.34	NO
	PM	0.00	0	15.16	2,697	15.16	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	5.01	1,436	5.01	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

Meter rates are based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

1.5 LONG TERM CUMULATIVE IMPACTS:

These impacts were determined by comparing Long Term Cumulative (Year 2030) and Long Term Cumulative (Year 2030) with project traffic added.

Street Segments:

Project Build-out – The proposed project in the Year 2030 With Project (Build-out) scenario has three (3) significant long term cumulative street segment impacts as shown in **Table 1-25**.

Intersections:

Project Build-out – The proposed project in the Year 2030 With Project (Build-out) scenario has seven (7) significant long term cumulative intersection impacts at 5 intersections as shown in **Table 1-26**.

Freeway Main-lanes:

Project Build-out – The proposed project in the Year 2030 With Project (Build-out) scenario has no significant long term cumulative freeway main-lane impacts as shown in **Table 1-27**.

Freeway Ramp Meters:

Project Build-out – The proposed project in the Year 2030 With Project (Build-out) scenario has three (3) significant long term cumulative freeway ramp meter impacts at 2 freeway ramp meters as shown in **Table 1-28**.

TABLE 1-25

Long Term Cumulative (Year 2030) With & Without Project Street Segment LOS

Summary

(Build-out)

Road	Segment	Class.	Year 2030			Year 2030 + Project (Buildout)			Δ V/C	Is this impact Significant ?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	D	39,580	0.880	D	41,639	0.930	0.050	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	39,580	0.792	D	42,815	0.856	0.065	NO
	I-5 SB Ramps and I-5 NB Ramps	5-PA	C	37,820	0.756	D	43,482	0.870	0.113	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	51,800	0.863	F	62,315	1.039	0.175	YES
	High Bluff Drive to Third Avenue	PA	C	42,770	0.713	D	54,902	0.915	0.202	NO
	Thirth Avenue to First Avenue	PA	C	42,770	0.713	D	53,824	0.897	0.184	NO
	First Avenue to El Camino Real	PA	C	42,770	0.713	D	53,824	0.897	0.184	NO
	El Camino Real to Carmel Country Road	PA	C	38,370	0.640	C	46,189	0.770	0.130	NO
	Carmel Country Road to Torrey Ridge Road	PA	B	34,400	0.573	C	37,905	0.632	0.058	NO
	Torrey Ridge Road to Lansdale Drive	PA	B	34,400	0.573	C	36,826	0.614	0.040	NO
Lansdale Drive to Carmel Canyon Road	PA	B	34,400	0.573	C	35,748	0.596	0.022	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	31,320	2.088	F	32,129	2.142	0.054	YES
	San Dieguito Road to Derby Downs Road	4-M	C	29,000	0.725	D	30,078	0.752	0.027	NO
	Derby Downs Road to Half Mile Drive	4-M	C	29,000	0.725	D	30,078	0.752	0.027	NO
	Half Mile Drive to Quarter Mile Drive	4-M	C	29,000	0.725	D	30,348	0.759	0.034	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	C	29,000	0.725	D	30,618	0.765	0.040	NO
	Del Mar Heights Road to Townsgate Drive	6-M	B	23,000	0.460	C	28,392	0.568	0.108	NO
	Townsgate Drive to High Bluff Drive	6-M	B	26,000	0.520	C	29,505	0.590	0.070	NO
	High Bluff Drive to Valley Centre Drive	6-M	C	35,620	0.712	C	38,046	0.761	0.049	NO
Valley Centre Drive to Carmel Valley Road	5-M	D	36,470	0.810	D	38,088	0.846	0.036	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	C	22,280	0.557	C	24,976	0.624	0.067	NO
	Townsgate Drive to Carmel Creek Road	4-M	B	18,800	0.470	B	20,957	0.524	0.054	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,590	0.340	A	14,938	0.373	0.034	NO
	Carmel Canyon Road to SR-56 WB Ramps	4-M	C	26,000	0.650	C	27,078	0.677	0.027	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	4-M	A	13,000	0.325	A	13,539	0.338	0.013	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	B	15,000	0.375	B	15,809	0.395	0.020	NO
	Carmel Grove Road to SR-56 WB Ramps	4-M	B	17,000	0.425	B	17,809	0.445	0.020	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	D	20,000	0.667	D	20,270	0.676	0.009	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	43,020	0.717	C	43,559	0.726	0.009	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	D	11,700	0.780	D	12,509	0.834	0.054	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	33,100	3.310	F	33,639	3.364	0.054	YES

Legend:

LOS= Level of Service
V/C= Volume to Capacity Ratio
ΔV/C= Change in V/C ratio

5-M = 5 lane Major with LOS E capacity of 45,000 ADT
5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT
4-M=4 lane Major
2-Ca=2 lane collector
2-Cb= 2 lane Collector with no fronting property

PA = 6 lane Primary Arterial
6-M = 6 lane Major

TABLE 1-26

Long Term Cumulative (Year 2030) With & Without Project Intersection LOS

Summary

(Build-out)

#	Intersection	Year 2030				Year 2030 + Project (Buildout)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	22.2	C	19.1	B	23.1	C	0.9	No	20.4	C	1.3	No
2	El Camino Real / San Dieguito Road	24.2	C	47.2	D	26.7	C	2.5	No	52.5	D	5.3	No
3	El Camino Real / Derby Downs Road	4.3	A	5.1	A	4.3	A	0.0	No	5.1	A	0.0	No
4	El Camino Real / Half Mile Drive	22.9	C	14.0	B	24.8	C	1.9	No	14.1	B	0.1	No
5	El Camino Real / Quarter Mile Drive	20.6	C	12.1	B	25.2	C	4.6	No	12.7	B	0.6	No
6	Del Mar Heights Road / Mango Drive	36.8	D	29.3	C	39.6	D	2.8	No	35.7	D	6.4	No
7	Del Mar Heights Road / Portofino Drive	9.8	A	9.6	A	10.1	B	0.3	No	10.1	B	0.5	No
8	Del Mar Heights Road / I-5 SB Ramps	26.1	C	22.4	C	29	C	2.9	No	25.7	C	3.3	No
9	Del Mar Heights Road / I-5 NB Ramps	71.5	E	55.5	E	107.1	F	35.6	Yes	94.0	F	38.5	Yes
10	Del Mar Heights Road / High Bluff Drive	44.0	D	40.1	D	55.3	E	11.3	Yes	80.2	F	40.1	Yes
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	8.3	A	0.0	No	20.7	C	0.0	No
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	7.7	A	0.0	No	20.9	C	0.0	No
13	Del Mar Heights Road / El Camino Real	35.0	C	41.5	D	50.8	D	15.8	No	84.1	F	42.6	Yes
14	Del Mar Heights Road / Carmel Country Rd	33.6	C	34.1	C	41.3	D	7.7	No	49.3	D	15.2	No
15	Del Mar Heights Road / Torrey Ridge Drive	29.5	C	11.9	B	33.1	C	3.6	No	14.4	B	2.5	No
16	Del Mar Heights Road / Lansdale Drive	32.7	C	18.7	B	41.1	D	8.4	No	20.9	C	2.2	No
17	Del Mar Heights Road / Carmel Canyon Rd	29.4	C	16.0	B	29.8	C	0.4	No	17.2	B	1.2	No
18	El Camino Real / Del Mar Highlands Town Ctr.	6.2	A	14.2	B	17.4	B	11.2	No	33.7	C	19.5	No
19	Carmel Country Road / Townsgate Drive	32.0	C	29.8	C	32.9	C	0.9	No	34.6	C	4.8	No
20	El Camino Real / Townsgate Drive	22.5	C	24.3	C	22.7	C	0.2	No	35.4	D	11.1	No
21	Carmel Country Road / Carmel Creek Rd	41.5	D	19.7	B	45.7	D	4.2	No	21.5	C	1.8	No
22	El Camino Real / High Bluff Drive	22.9	C	33.6	C	24.4	C	1.5	No	40.0	D	6.4	No
23	Carmel View Road / High Bluff Drive	8.9	A	9.8	A	9.3	A	0.4	No	10.9	B	1.1	No
24	Carmel Creek Road / Carmel Grove Rd	15.3	B	11.4	B	15.3	B	0.0	No	17.3	B	5.9	No
25	Carmel Valley Road / I-5 SB Ramps	25.3	C	30.9	C	26.3	C	1.0	No	35.3	D	4.4	No
26	Carmel Valley Road / I-5 NB Ramps	26.8	C	19.6	B	27.3	C	0.5	No	20.0	B	0.4	No
27	El Camino Real / Valley Centre Drive	22.0	C	27.4	C	22.2	C	0.2	No	29.3	C	1.9	No
28	El Camino Real / Carmel Valley Rd	22.0	C	17.6	B	22.2	C	0.2	No	19.2	B	1.6	No
29	El Camino Real / SR-56 EB On Ramp	23.1	C	89.0	F	23.6	C	0.5	No	97.6	F	8.6	Yes
30	Carmel View Road / Valley Centre Drive	7.7	A	6.2	A	7.7	A	0.0	No	6.2	A	0.0	No
31	Carmel Creek Road / SR-56 WB Ramp	47.0	D	42.6	D	54.2	D	7.2	No	53.3	D	10.7	No
32	Carmel Creek Road / SR-56 EB Ramps	15.0	B	22.9	C	15.0	B	0.0	No	23.4	C	0.5	No
33	Carmel Country Road / Carmel Canyon Rd	34.5	C	33.4	C	36.6	D	2.1	No	34.1	C	0.7	No
34	Carmel Country Road / SR-56 WB Ramps	17.1	B	9.9	A	17.1	B	0.0	No	12.7	B	2.8	No
35	Carmel Country Road / SR-56 EB Ramps	20.1	C	18.2	B	22.0	C	1.9	No	18.7	B	0.5	No
36	Carmel Creek Road / Del Mar Trail	43.3	E	20.6	C	48.3	E	5.0	Yes	23.6	C	3.0	No

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

DNE = Does not exist

For Intersection #36, the worst approach delay and level of service is reported.

TABLE 1-27

**Long Term Cumulative (Year 2030) With & Without Project Freeway Summary
(Build-out)**

Segment	Lanes	Capacity	Dir.	Year 2030		Year 2030 + Project (Buildout)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.7370	C	0.7424	C	0.0054	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.7608	C	0.7663	C	0.0055	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.7771	C	0.7837	C	0.0066	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.8022	D	0.8090	D	0.0068	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.6956	C	0.7068	C	0.0112	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.7180	C	0.7296	C	0.0116	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.8172	D	0.8226	D	0.0054	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.8946	D	0.9005	D	0.0059	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.7548	C	0.7590	C	0.0042	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.7413	C	0.7454	C	0.0041	NO
SR-56									
El Camino Real / Carmel Creek Rd.	3-GP + 1-AX	8,850	EB	0.9847	E	0.9881	E	0.0034	NO
El Camino Real / Carmel Creek Rd.	3-GP + 1-AX	8,850	WB	1.0098	F	1.0132	F	0.0035	NO
Carmel Creek Rd. / Carmel Country Rd.	3-GP + 1-AX	8,850	EB	0.9027	D	0.9061	D	0.0034	NO
Carmel Creek Rd. / Carmel Country Rd.	3-GP + 1-AX	8,850	WB	0.9257	E	0.9292	E	0.0035	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP= # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln.

#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1,680 veh/hr/ln taken from Caltrans Guide, December 2002)

AX = Auxiliary Lane with LOS "E" capacity of 1,800 veh/hr/ln.

HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 veh/hr/ln.

TABLE 1-28

**Long Term Cumulative (Year 2030) With & Without Project Ramp Meter Summary
(Build-out)**

Most Restrictive Meter Rate

Location		Year 2030		Year 2030 With Project (Buildout)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	40.27	7,163	47.61	8,468	7.34	YES
	PM	5.22	928	29.84	5,307	24.62	YES
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	0.00	0	1.37	392	1.37	NO
	PM	8.30	2,378	16.04	4,597	7.74	YES
El Camino Real / SR-56 EB on Ramp	AM	0.00	0	0.00	0	0.00	NO
	PM	3.93	2,277	4.78	2,770	0.85	NO
Carmel Country Rd. / SR-56 EB on Ramp	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, if change in delay is greater than 2 minutes and delay is greater than 15 minutes

Meter rates are based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

15 Minute Max. Meter Rate

Location		Year 2030		Year 2030 With Project (Buildout)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	15.0	3,567	20.5	4,872	5.5	YES
	PM	15.0	2,320	43.3	6,699	28.3	YES
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	15.0	2,291	15.0	2,291	0.0	NO
	PM	15.0	1,740	15.0	1,740	0.0	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	15.0	3,393	17.8	4,031	2.8	YES
	PM	15.0	3,915	23.6	6,148	8.6	YES
El Camino Real / SR-56 EB on Ramp	AM	15.0	4,060	15.5	4,205	0.5	NO
	PM	15.0	7,415	16.0	7,903	1.0	NO
Carmel Country Rd. / SR-56 EB on Ramp	AM	15.0	1,914	16.1	2,059	1.1	NO
	PM	15.0	1,711	19.3	2,204	4.3	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

1.6 MITIGATION

Table 1-29 shows a summary of the proposed mitigation as the project is phased.

Table 1-30 summarizes the “with mitigation” levels of service which may be expected at intersections mitigated by the One Paseo project. **Appendix N** includes the mitigation Synchro worksheets. **Table 1-31** summarizes the “with mitigation” levels of service which may be expected at street segments mitigated by the One Paseo project.

Table 1-32 shows a summary of the improvements and fair share contributions to the intersections that have significant impacts as a result of the project. The combined fair share contribution for all five intersection improvements is estimated at \$2,251,800.

Table 1-33 shows a summary of the improvements and fair share contributions to the street segments and ramp meters that have significant impacts as a result of the project. Per the City’s request, the Via de la Valle contribution is based similar to other projects contributing to the widening project. The combined estimated fair share contribution for all six improvements is \$3,474,800. The total mitigation cost for street, ramp and intersection impacts is estimated at \$5,726,600. **Table 1-34** shows the summary of project features. **Appendix N** includes an assessment of probable costs for each improvement. A conceptual striping layout of Del Mar Heights Road between the I-5 SB ramps and High Bluff Drive is included in **Appendix N**. Also included in **Appendix N** is a conceptual layout of the improvements to El Camino Real at SR-56 eastbound on-ramp.

Figure 1-1 shows the location of proposed mitigation provided by the project.

Figure 1-2 shows the proposed intersection lane configurations with mitigation.

TABLE 1-29

Transportation Mitigation Phasing Plan

#	Location	Responsible Party	Improvement	Impact Fully Mitigated?	When Impact is Significant ?
Project Phase 1 9,888 ADT with 894 AM (768 in / 126 out) & 1,188 PM (312 in / 876 out) Peak Hour Trips Prior to issuance of first building permit, the following improvements shall be assured to the satisfaction of the City Engineer					
10	Del Mar Heights Rd. / High Bluff Dr.	One Paseo	Widen to provide a dedicated Northbound Right Turn Lane	Yes	Phase 1&2
11	Del Mar Heights Road / Third Avenue	One Paseo	Project Access to be Signalized: Add two left turn lanes and one right turn lane in the NB direction; Widen to add a WB left turn lane and an EB right turn lane.	Yes	Phase 1
12	Del Mar Heights Road / First Avenue	One Paseo	Project Access to be Signalized: Add one left turn lane and one right turn lane in the NB direction; Widen to provide two WB left turn lanes and an EB right turn lane.	Yes	Phase 1
13	Del Mar Heights Rd. / El Camino Real	One Paseo	Widen to provide a 365 foot long dedicated EB right turn lane	Yes	Phase 1 & 2
18	El Camino Real / Del Mar Highlands Town Center	One Paseo	Modify Signalized Intersection and Add EB leg: In the EB direction, provide a dedicated left turn lane and a left/through/right turn lane. In the NB direction, widen for a dual left turn lane; in the SB direction, widen for a right turn lane.	Yes	Phase 1
A	El Camino Real (Via de la Valle to San Dieguito Rd.)	City of San Diego CIP/One Paseo	Widen to a 4 lane major	Partially*	Phase 1
9	Del Mar Heights Rd. / I-5 NB Ramps	One Paseo	Modify I-5 NB On/Off Ramps: Widen Off-Ramp to include dual left and shared through/right and right turn lane at intersection; Extend WB right turn pocket by 845 feet; Reconfigure median on bridge to extend EB dual left turn pocket to 400 feet.	Partially	Project Buildout
BB	I-5 NB Ramp Meter / Del Mar Heights Road	One Paseo	Widen to provide HOV lane to NB on ramp	Yes	Project Buildout
B	Del Mar Heights Rd. (I-5 SB Ramps to I-5 NB Ramps) Bridge	One Paseo	Reconfigure median on bridge to extend EB dual left turn pocket to 400 feet.	Partially	Project Buildout
C	Del Mar Heights Rd. (I-5 NB Ramps to High Bluff Dr.)	One Paseo	Extend WB right turn pocket at I-5 NB ramps by 845 feet.	Partially	Phase 1
D	Via de la Valle (San Andres Dr. to El Camino Real)	One Paseo & Other Projects	Contribute fair share (19.4%) towards the widening to a 4 lane Major.	Partially*	Phase 1
36	Carmel Creek / Del Mar Trail	One Paseo	Signalize Intersection	Yes	Phase 1
Project Phase 2 17,812 ADT with 1,182 AM (910 in / 272 out) & 2,021 PM (747 in / 1,273 out) Peak Hour Trips Prior to issuance of first building permit in Phase 2, the following improvements shall be assured to the satisfaction of the City Engineer					
10	Del Mar Heights Rd. / High Bluff Dr.	One Paseo	Widen Del Mar Heights Road on north side receiving lanes and restripe and modify signal to provide third left turn lane in the NB direction. Modify EB & WB left turn lanes to dual left turn lanes. Widen EB approach by 2 feet on the south side to accommodate dual EB & WB left turn lanes.	Yes	Phase 1&2
Project Buildout 26,961 ADT with 1,538 AM (1,057 in / 481 out) & 2,932 PM (1,231 in / 1,701 out) Peak Hour Trips Prior to issuance of first building permit in Phase 3, the following fair share contributions shall be made to the satisfaction of the City Engineer					
AA	I-5 SB (Loop) Ramp Meter / Del Mar Heights Road	One Paseo & Other Projects	Contribute fair share (34.8%) towards widening to add an HOV lane to the on-ramp.	Partially	Project Buildout
29	El Camino Real / SR-56 EB On Ramp	One Paseo & Other Projects	Contribute fair share (3.5%) of the cost of the following improvement: Widen & Restripe EB approach to provide 1 left, 1 through/left, 1 through, and 2 dedicated right turn lanes	Yes	Project Buildout

Notes:

* Notwithstanding the applicant's fair share financial contribution, the timing of these improvements are uncertain and cannot be assured prior to the issuance of the first project building permit, therefore the impact is considered significant and partially mitigated.

AA & BB = Ramp Meters

All improvements and contributions are to be assured to the satisfaction of the City Engineer.

A,B,C, D = Street Segments

#s = Intersections

TABLE 1-30

Intersection Levels of Service With & Without Mitigation

Near Term + Project (Phase 1 & 2)

Number	Intersection	Control	Without Mitigation				With Mitigation			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
9	Del Mar Heights Road / I-5 NB Ramps*	Signalized	49.8	D	50.5	D	43.4	D	46.4	D
10	Del Mar Heights Road / High Bluff Drive*	Signalized	31.3	D	56.2	E	20.7	C	27.8	C
11	Del Mar Heights Road / Third Avenue*	Signalized	6.5	A	13.5	B	5.5	A	12.5	B
12	Del Mar Heights Road / First Avenue*	Signalized	6.0	A	15.6	B	5.0	A	10.0	B
13	Del Mar Heights Road / El Camino Real*	Signalized	34.5	C	59.1	E	34.2	C	45.6	D
29	El Camino Real / SR-56 EB On-Ramp	Signalized	18.6	B	35.1	D	18.3	B	28.0	C
36	Carmel Creek Road / Del Mar Trail**	Signalized	52.0	F	23.8	C	16.9	B	9.9	A

Near Term + Project (Build-out)

Number	Intersection	Control	Without Mitigation				With Mitigation			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
9	Del Mar Heights Road / I-5 NB Ramps*	Signalized	49.2	D	56.1	E	49.0	D	55.4	E
10	Del Mar Heights Road / High Bluff Drive*	Signalized	34.2	D	57	E	21.6	C	31.7	C
11	Del Mar Heights Road / Third Avenue*	Signalized	8.5	A	21.4	C	6.9	A	14.8	B
12	Del Mar Heights Road / First Avenue*	Signalized	7.9	A	25.3	C	7.0	A	12.7	B
13	Del Mar Heights Road / El Camino Real*	Signalized	37.4	D	62.9	E	34.5	C	49.7	D
29	El Camino Real / SR-56 EB On-Ramp	Signalized	18.8	B	35.8	D	18.5	B	28.8	C
36	Carmel Creek Road / Del Mar Trail**	Signalized	53.5	F	25.1	D	16.9	B	9.9	A

Year 2030 + Project (Build-out)

Number	Intersection	Control	Without Mitigation				With Mitigation			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
9	Del Mar Heights Road / I-5 NB Ramps*	Signalized	107.1	F	94.0	F	96.1	F	78.2	E
10	Del Mar Heights Road / High Bluff Drive*	Signalized	55.3	E	80.2	F	32.6	C	43.4	D
11	Del Mar Heights Road / Third Avenue*	Signalized	8.3	A	20.7	C	7.4	A	19.7	B
12	Del Mar Heights Road / First Avenue*	Signalized	7.7	A	20.9	C	8.6	A	17.5	B
13	Del Mar Heights Road / El Camino Real*	Signalized	50.8	D	84.1	F	44.9	D	50.2	D
29	El Camino Real / SR-56 EB On-Ramp	Signalized	23.6	C	97.6	F	23.5	C	53.4	D
36	Carmel Creek Road / Del Mar Trail**	Signalized	48.3	E	23.6	C	18.8	B	10.0	A

Notes:

LOS = Level of Service

* = Signals are coordinated.

Orange indicates unacceptable level of service.

**Intersection #36 is two-way stop controlled without mitigation.

TABLE 1-31
Street Segments Levels of Service With Mitigation

Near Term + Project (Phase 1 & 2)

Road	Segment	Jurisd.	Class.	Cap.	Volume	V/C	LOS
Del Mar Heights Rd.	I-5 SB Ramps and I-5 NB Ramps	SD	5-PA	50,000	44,953	0.90	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	61,721	1.03	F
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	4-M	40,000	27,088	0.68	C

Near Term + Project (Build-out)

Road	Segment	Jurisd.	Class.	Cap.	Volume	V/C	LOS
Del Mar Heights Rd.	I-5 SB Ramps and I-5 NB Ramps	SD	5-PA	50,000	46,874	0.94	E
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	65,290	1.09	F
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	4-M	40,000	27,271	0.68	C

Year 2030 + Project

Road	Segment	Jurisd.	Class.	Cap.	Volume	V/C	LOS
Del Mar Heights Rd.	I-5 SB Ramps and I-5 NB Ramps	SD	5-PA	50,000	43,482	0.87	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	62,315	1.04	F
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	4-M	40,000	33,639	0.84	D

Legend:

SD= City of San Diego 5-PA = 5 lane Prime Arterial has LOS E capacity of 50,000 ADT
 Cap.= Capacity PA = 6 lane Prime Arterial
 Class.= Classification 4-M=4 lane Major
 LOS= Level of Service
 V/C= Volume to Capacity Ratio

TABLE 1-32
Summary of Mitigation
(Intersections)

Location	Intersection	Direct or Cumulative Significant Impact?	Mitigation Responsibility	Description	Impact Fully or Partially Mitigated?	Current Estimated Cost of Improvement	Fair Share Percentage	Current Estimated Fair Share Contribution*
# 10	Del Mar Heights Rd. / High Bluff Dr.	Direct & Cumulative	One Paseo to construct	Widen to provide dedicated NB right turn lane at Phase 1 & widen Del Mar Heights Rd. on north side receiving lanes and restripe NB left and rephase signal to provide triple left. Modify EB & WB left turn lanes to dual left turn lanes. Widen EB approach by 2 feet on the south side to accommodate the EB & WB dual lefts.	Fully Mitigated	\$532,700	100.0%	\$532,700
# 13	Del Mar Heights Rd. / El Camino Real	Direct & Cumulative	One Paseo to construct	Widen to provide dedicated 365 foot long EB right turn lane	Fully Mitigated	\$463,400	100.0%	\$463,400
# 36	Camel Creek Rd. / Del Mar Trail	Direct & Cumulative	One Paseo to construct	Signalize	Fully Mitigated	\$200,000	100%	\$200,000
#9	Del Mar Heights Rd. / I-5 NB Ramps	Direct & Cumulative	One Paseo	Modify I-5 NB On/Off Ramps:Widen & Restripe off-ramp to include dual left, a shared through/right and right turn lanes.Extend WB right turn pocket by 845 feet; Reconfigure median on bridge to extend dual left turn pocket to 400 feet. ☞	Partially Mitigated	\$1,045,000	100.0%	\$1,045,000
# 29	El Camino Real / SR-56 EB On-Ramp	Cumulative	One Paseo & Other Projects	Widen & Restripe the EB approach to provide 1 left, 1 through/left, 1 through, and 2 dedicated right turn lanes	Fully Mitigated	\$305,100	3.5%	\$10,700
						TOTAL ESTIMATED COST		\$2,251,800

* The actual dollar amount of the fair share contribution will depend on the cost estimate current at the time the payment is made, satisfactory to the City Engineer.
Note: ☞ Caltrans has identified improvements for the I-5 / Del Mar Heights Road interchange and SR-56 EB on-ramp at El Camino Real as the result of their continuing efforts to implement the I-5 / SR-56 connectors project as well as the I-5 North Coast Corridor project. See discussion in Section 19.10 in the report.

TABLE 1-33
Summary of Mitigation
(Street Segments & Ramp Meters)

Road	Street Segment	Direct or Cumulative Significant Impact?	Mitigation Responsibility	Description	Impact Mitigated? ²	Current Estimated Cost of Improvement	Fair Share Percentage	Current Estimated Fair Share Contribution ¹
Del Mar Heights Rd.	I-5 SB Ramps to I-5 NB Ramps (Bridge)	Direct ⊕	One Paseo to construct	Reconfigure median on bridge to extend EB to NB dual left turn pocket to 400 feet	Partially	Cost is included in Int. # 9	100%	Cost is included in Int. # 9
El Camino Real	Via de la Valle to San Dieguito Road	Direct & Cumulative	City of San Diego CIP (T-12.3)	Widen to 4 lane Major	Partially	\$5,800,000	4.9%	\$284,000
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	Direct & Cumulative	One Paseo to construct	Widen to lengthen by 845 feet the WB right turn pocket at I-5 NB ramps and modify raised median.	Partially	Cost is included in Int. # 9	100%	Cost is included in Int. # 9
Via de la Valle	San Andres Dr. to El Camino Real	Direct & Cumulative	One Paseo & Other Projects	Widen to 4 lane Major	Partially	\$15,800,000	19.4%	\$3,069,000*
I-5 Southbound (Loop) Ramp Meter / Del Mar Heights Road		Cumulative	One Paseo & Other Projects	Widen to add an HOV lane to the loop ramp	Partially	\$350,000	34.8%	\$121,800
I-5 Northbound Ramp Meter / Del Mar Heights Road		Cumulative	One Paseo to construct	Widen to add an HOV lane to the ramp	Yes	Cost is included in Int. # 9	32.6%	Cost is included in Int. # 9
TOTAL ESTIMATED COST								\$3,474,800

* 539 ADT x \$5,692.61 per ADT = \$3,069,000

¹ The actual dollar amount of the fair share contribution will depend on the cost estimate current at the time the payment is made, satisfactory to the City Engineer.

² These impacts are partially mitigated due to a fair share contribution towards the improvement such as El Camino Real and Via de la Valle and/or improvements are consistent with Caltrans I-5 North Coast Corridor project, however, not below a level of significance.

Note: ⊕ Caltrans has identified improvements for the I-5 / Del Mar Heights Road interchange as the result of their continuing efforts to implement the I-5 / SR-56 connectors project as well as the I-5 North Coast Corridor project. See discussion in Section 19.10 in the report.

TABLE 1-34
Summary of Project Features

Location	Intersection	Responsibility	Description
# 11 & 12	Del Mar Heights Road / Third & First Avenue	One Paseo to construct	Signalize Third & First Avenue. Include single left turn lane at Third Ave in the WB direction. Include dual left turn lane at First Ave in WB direction. Include dedicated right turn lanes for both Third and First Ave in the EB direction. Widen Del Mar Heights Road to include curb, gutter & sidewalk
# 18	El Camino Real / Market Street/Del Mar Highlands Town Center	One Paseo to construct	Modify signal to include fourth leg for project access. Widen to provide SB right turn lane. Modify median to provide dual lefts in the NB direction. In the EB direction, provide dedicated left turn lane, and a shared left, through, right turn lane.

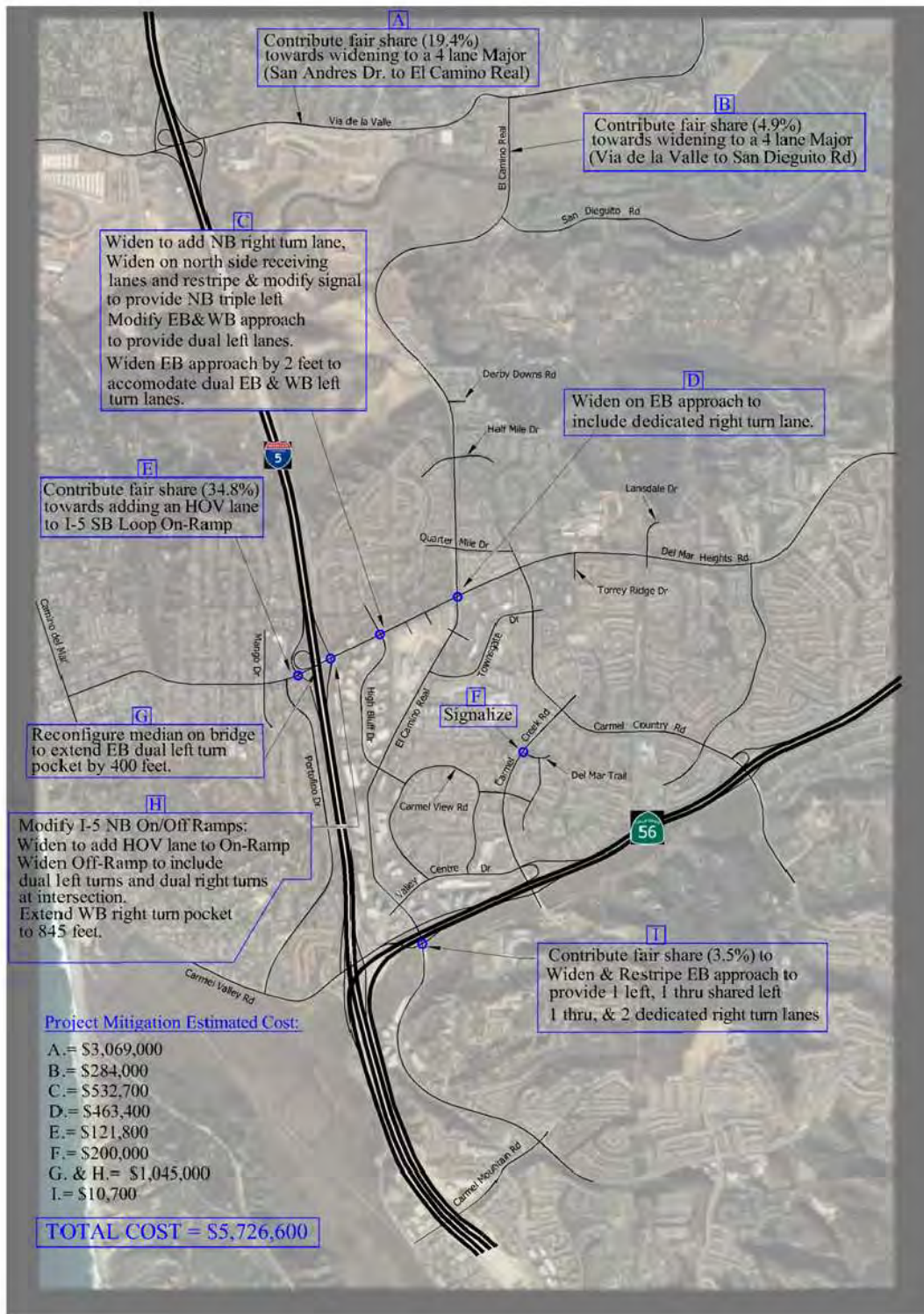


FIGURE 1-1

Proposed Project Mitigation

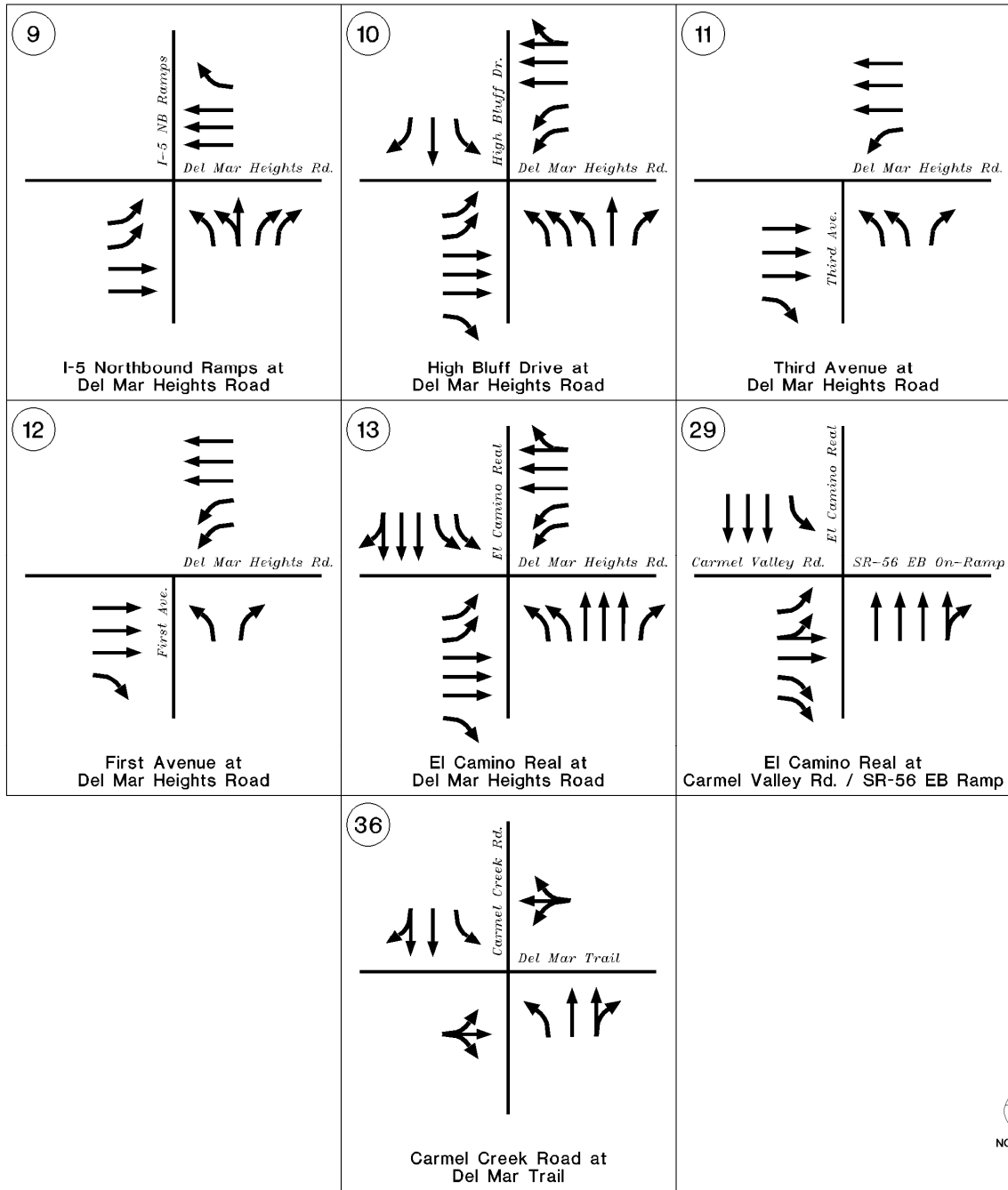


FIGURE 1-2

Proposed Lane Configurations With Mitigation

2.0 INTRODUCTION

Urban Systems Associates, Inc. (USAI) was retained by Kilroy Realty to determine the potential transportation impacts and the appropriate mitigation measures for proposed project development of One Paseo in the Carmel Valley area. The proposed project is located on the southwest corner of Del Mar Heights Road and El Camino Real (See **Figure 2-1**). The One Paseo development includes 245,000 square feet of corporate office; 291,000 square feet of multi-tenant office; a 150 room hotel; 220,000 square feet community shopping center; a 10 screen cinema; and 608 multi-family residential units which would generate 28,365 average daily trips (ADT), see **Table 2-1**. A credit for mixed use trip reductions has been used for the One Paseo project which provides a total reduction of 1,404 ADT. After taking credit for the mixed-use reductions, the net new trips for the proposed development is **26,961** ADT with **1,538** trips in the AM peak hour and **2,932** trips in the PM peak hour. **Figure 2-2** shows the One Paseo site plan.

In order to determine project trip distribution and study area of the project, USAI used a SANDAG Series 11 Transportation Model Run, see **Appendix A**. For study area purposes, USAI used City guidelines which require 50 trips in one direction during a peak hour be used as a threshold for study intersections and street segments. Also, based on the City Guidelines, USAI used 50 peak directional trips as the basis for studying freeway segments and 20 peak trips for studying ramp meters. The study area was agreed upon based on a consultation with City Transportation staff. **Figure 2-3** shows the study area boundary and the intersection key selected for the study. USAI then gathered information and oversaw the machine and manual traffic counts of the existing ADT and peak hour traffic flow data for the study intersections and street segments. **Table 2-2** shows the study area street segments and **Table 2-3** shows the intersections.



FIGURE 2-1
Project Location Map



 One Paseo

FIGURE 2-2
Project Site Plan

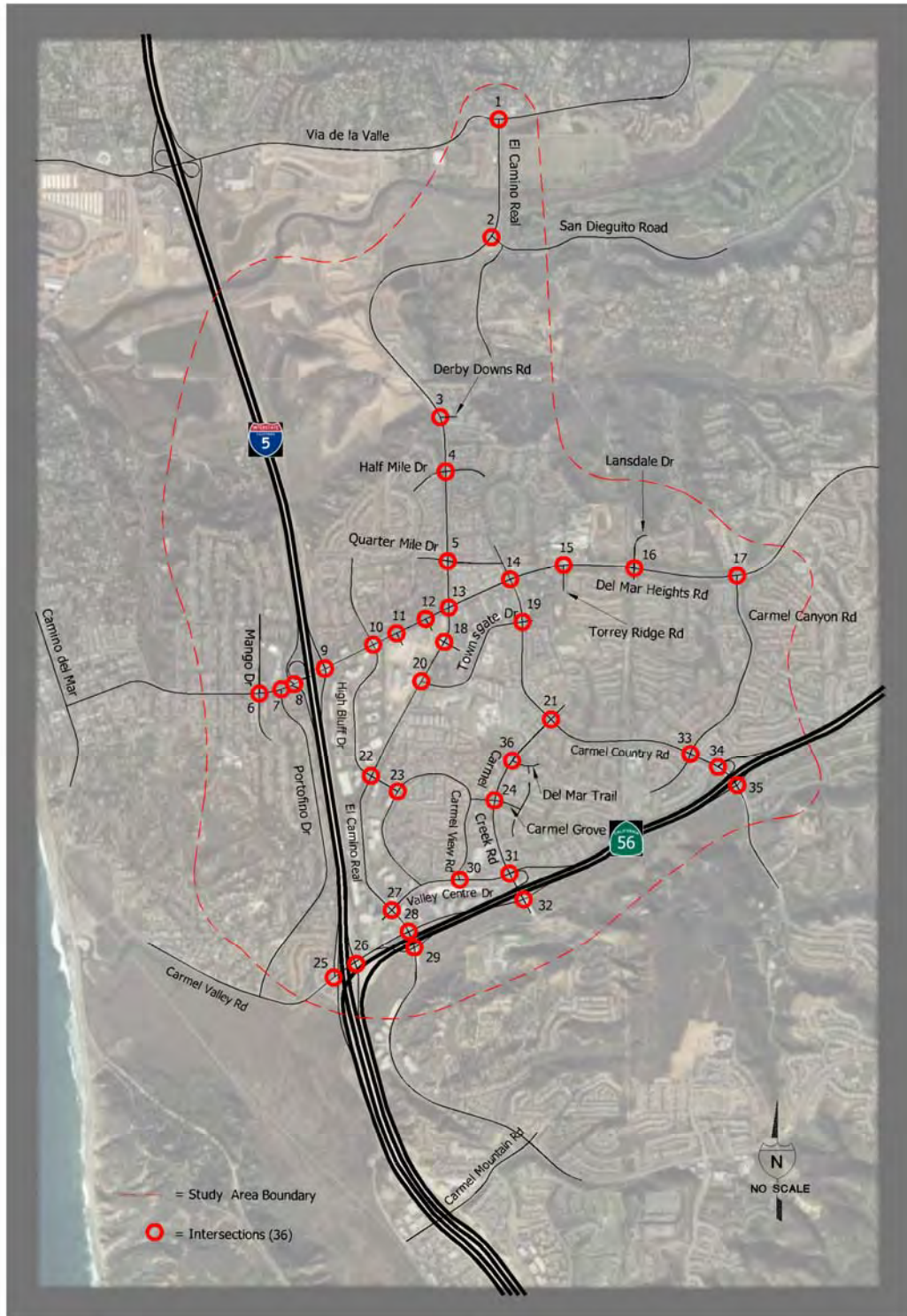


FIGURE 2-3

Study Area Boundary and Intersection Key

TABLE 2-1
Development Summary

ONE PASEO – A Main Street for Carmel Valley DEVELOPMENT SUMMARY							
Phase/Block	Commercial Retail (Sq. Ft.*)		Commercial Office (Sq. Ft.*)		Hotel (No. of Rooms)	Residential (MF Units)	Total*
	Retail	Cinema **	Corporate Office	Professional Office***			
<i>Phase 1</i>							
Block D	61,190	---	270,000	21,000	---	---	352,190
Block E	39,460	---	245,000	---	---	---	284,460
<i>Phase 1 Total</i>	<i>100,650</i>	<i>---</i>	<i>515,000</i>	<i>21,000</i>	<i>---</i>	<i>---</i>	<i>636,650</i>
<i>Phase 2</i>							
Block A	65,610	---	---	---	---	194	65,610 + 194 MF units
<i>Phase 2 Total</i>	<i>65,610</i>	<i>---</i>	<i>---</i>	<i>---</i>	<i>---</i>	<i>194</i>	<i>65,610 + 194 MF units</i>
<i>Phase 3</i>							
Block B	38,940	---	---	---	150	181	38,940 + 150 hotel rooms + 181 MF units
Block C	14,800	---	---	---	---	233	14,800 + 233 MF units
Block D	---	50,000	---	---	---	---	50,000
<i>Phase 3 Total</i>	<i>53,740</i>	<i>50,000</i>	<i>---</i>	<i>---</i>	<i>---</i>	<i>414</i>	<i>103,740 + 418 MF units</i>
Total*	220,000	50,000	515,000	21,000	150	608	806,000 Sq. Ft + 150 hotel rooms + 608 MF units

*Gross Leasable Area (excludes parking structures covered in Gross Floor Area calculations). Density transfers permitted in accordance with procedures described in the Precise Plan.

**Cinema consists of up to 10 screens with a maximum total of 1,200 seats.

***Professional Office (located on Main Street).

TABLE 2-2
Study Area Street Segments

Street Segments	
Road	Segment
Del Mar Heights Rd.	Mango Drive to Portofino Drive
	Portofino Drive to I-5 Southbound Ramps
	I-5 Southbound Ramps and I-5 Northbound Ramps
	I-5 Northbound Ramps to High Bluff Drive
	High Bluff Drive to Third Avenue
	Third Avenue to First Avenue
	First Avenue to El Camino Real
	El Camino Real to Carmel Country Road
	Carmel Country Road to Torrey Ridge Road
	Torrey Ridge Road to Lansdale Drive
	Lansdale Drive to Carmel Canyon Road
El Camino Real	Via de la Valle to San Dieguito Road
	San Dieguito Road to Derby Downs Road
	Derby Downs Road to Half Mile Drive
	Half Mile Drive to Quarter Mile Drive
	Quarter Mile Drive to Del Mar Heights Road
	Del Mar Heights Road to Townsgate Drive
	Townsgate Drive to High Bluff Drive
	High Bluff Drive to Valley Centre Drive
	Valley Centre Drive to Carmel Valley Road
Carmel Country Road	Del Mar Heights Road to Townsgate Drive
	Townsgate Drive to Carmel Creek Road
	Carmel Creek Road to Carmel Canyon Road
	Carmel Canyon Road to SR-56 Westbound Ramps
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road
Carmel Creek Road	Carmel Country Road to Carmel Grove Road
	Carmel Grove Road to SR-56 Westbound Ramps
Valley Centre Drive	Carmel View Road to Carmel Creek Road
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real
High Bluff Drive	Del Mar Heights Road to El Camino Real
Via de la Valle	San Andres Drive to El Camino Real (West)

TABLE 2-3
Study Area Intersections

Intersections		
Number	Intersection	Control
1	El Camino Real / Via de la Valle	Signalized
2	El Camino Real / San Dieguito Road	Signalized
3	El Camino Real / Derby Downs Road	Signalized
4	El Camino Real / Half Mile Drive	Signalized
5	El Camino Real / Quarter Mile Drive	Signalized
6	Del Mar Heights Road / Mango Drive	Signalized
7	Del Mar Heights Road / Portofino Drive	Minor Street
8	Del Mar Heights Road / I-5 SB Ramps	Signalized
9	Del Mar Heights Road / I-5 NB Ramps	Signalized
10	Del Mar Heights Road / High Bluff Drive	Signalized
11	Del Mar Heights Road / Third Avenue	Signalized
12	Del Mar Heights Road / First Avenue	Signalized
13	Del Mar Heights Road / El Camino Real	Signalized
14	Del Mar Heights Road / Carmel Country Rd	Signalized
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized
16	Del Mar Heights Road / Lansdale Drive	Signalized
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized
19	Carmel Country Road / Townsgate Drive	Signalized
20	El Camino Real / Townsgate Drive	Signalized
21	Carmel Country Road / Carmel Creek Rd	Signalized
22	El Camino Real / High Bluff Drive	Signalized
23	Carmel View Road / High Bluff Drive	All-Way Stop
24	Carmel Creek Road / Carmel Grove Rd	Signalized
25	Carmel Valley Road / I-5 SB Ramps	Signalized
26	Carmel Valley Road / I-5 NB Ramps	Signalized
27	El Camino Real / Valley Centre Drive	Signalized
28	El Camino Real / Carmel Valley Rd	Signalized
29	El Camino Real / SR-56 EB On Ramp	Signalized
30	Carmel View Road / Valley Centre Drive	Signalized
31	Carmel Creek Road / SR-56 WB Ramp	Signalized
32	Carmel Creek Road / SR-56 EB Ramps	Signalized
33	Carmel Country Road / Carmel Canyon Rd	Signalized
34	Carmel Country Road / SR-56 WB Ramps	Signalized
35	Carmel Country Road / SR-56 EB Ramps	Signalized
36	Carmel Creek Road / Del Mar Trail	All-Way Stop

In order to summarize project impacts and required mitigation this report is divided into the following text sections:

- 1.0 Executive Summary
- 2.0 Introduction
- 3.0 Proposed Project
- 4.0 Methodology
- 5.0 Existing Conditions
- 6.0 Existing With Project Analysis
- 7.0 Cumulative Projects
- 8.0 Near Term Without Project
- 9.0 Near Term With Project Phase 1
- 10.0 Near Term With Project Phases 1 & 2
- 11.0 Near Term With Project Build-out
- 12.0 Long Term Cumulative (Year 2030) Without Project
- 13.0 Long Term Cumulative (Year 2030) With Project Build-out
- 14.0 Access & On-Site Analysis
- 15.0 Construction Traffic Analysis / Adaptive Traffic Control
- 16.0 DEIR Alternatives Analysis
- 17.0 Cinema Phasing Alternatives

18.0 Transportation Demand Management / Transit

19.0 Conclusions and Recommendations

20.0 References

3.0 PROPOSED PROJECT

The project evaluated in this study proposes a development of 245,000 square feet of corporate office; 291,000 square feet of multi-tenant office; a 150 room hotel; 220,000 square feet community shopping center; a 10 screen cinema with a total maximum of 1,200 seats; and 608 multi-family residential units. The One Paseo project has been divided into phases such as the Project Phase 1, Project Phase 1 & 2, and Project Build-out.

3.1 TRIP GENERATION

A trip generation table for each phase of the project was developed.

Project Phase 1 – Phase 1 of the project would consist of constructing 100,650 square feet of retail, 515,000 square feet of corporate office, and 21,000 square feet of professional office. Construction of Phase 1 is planned to begin in the year 2013. The trip generation table using driveway rates is shown on **Table 3-1**. As shown, the proposed project during this phase would generate 10,262 ADT with 980 trips in the AM peak hour and 1,260 trips in the PM peak hour. After taking a mixed-use reduction of 374 ADT, the net new trips for this phase is 9,888 ADT with 894 trips in the AM peak hour and 1,188 trips in the PM peak hour.

Project Phase 1 & 2 – Phase 2 of the project includes an additional 65,610 square feet of retail along with 194 residential units. Construction of Phase 2 is planned to begin in the year 2014. Please note that completion of Phase 1 is not necessary for construction of Phase 2 to start. The trip generation table using driveway rates is shown on **Table 3-2**. As shown, the proposed project during the combined phase 1 & 2 would generate 18,419 ADT. After taking a mixed-use reduction of 607 ADT, the net new trips for this phase is 17,812 ADT with 1,182 trips in the AM peak hour and 2,021 trips in the PM peak hour.

Due to the unique nature of the project and the phasing of retail-commercial uses throughout the development, Urban Systems Associates, in consultation with City transportation staff, used a blended rate for the retail-commercial portion discussed below. A blended trip generation rate (see footnote on **Table 3-2**) is used for the community shopping center to reflect the variety of commercial-retail uses within the project. The initial 100,650 square feet of retail generates at a trip rate of 40 trips per 1,000 square feet based on the character of freestanding retail shops, see **Appendix A**. A 30,000 square foot supermarket generates 150 trips per 1,000 square feet. The remaining 35,610 square feet of commercial-retail generates 70 trips per 1,000 square feet. Appendix C (Definition of Land Use Categories for Trip Generation Purposes) of the City of San Diego's Trip Generation Manual, May 2003, under Specialty Retail/Strip Commercial, states "In general, as the gross floor area approaches 100,000 square feet, the stores lose their "freestanding" character and become part of a shopping center". For this reason, the remaining 35,610 square feet of commercial-retail generate the community shopping center trip rate of 70 per 1,000 square feet.

Project Build-out – Project Build-out would include Phase 1 & 2 along with Phase 3 which would consist of constructing 53,740 square feet of retail, 150 room hotel, 414 residential units, and a 10 screen cinema. Construction of Phase 3 is planned to begin in the year 2015. Construction of Phase 3 is not contingent on completion of Phase 1 or 2. The trip generation table using driveway rates is shown on **Table 3-3**. As shown, the proposed project at full build-out would generate 28,365 ADT. After taking a mixed-use reduction of 1,404 ADT, the net new trips for build-out of the project is 26,961 ADT with 1,538 trips in the AM peak hour and 2,932 trips in the PM peak hour. A blended rate was used for project build-out for the reasons mentioned previously.

An additional analysis was completed to evaluate the impacts of the project if a Community Shopping Center trip generation rate of 70 trips per 1,000 square feet (ksf) was used for all project phases versus the blended trip generation rate discussed earlier in this chapter (**Appendix B**). The analysis demonstrated that the blended rate resulted in no change to the impacts and mitigation when compared to the Community Shopping Center rate except at project build-out. At build-out, an additional impact was identified using the Community Shopping Center rate. On Del Mar Heights Road along the project frontage (High Bluff to El Camino Real), a

cumulative segment impact was identified. We therefore completed a more detailed corridor analysis along Del Mar Heights Road from the south freeway ramps to El Camino Real and determined the impact would be mitigated by installing a coordinated signal system. This is accomplished through signal timing and signal interconnects. Signal interconnect is a standard city requirement along a traffic corridor such as Del Mar Heights Road and will be implemented with the project. Further improvement in traffic flow can be obtained by using Adaptive Traffic Control equipment. The corridor analysis is discussed in Section 15.0 of this report. **Appendix B** includes the trip generation tables as well as the analysis results of street segments, intersections, ramp meters, and freeway segments in the project study area.

The blended trip generation rate and discount applied to the Project and approved by City of San Diego staff results in a trip generation reduction of approximately 4-6% of Project related trips when compared to the trip generation of the Project if each land use was calculated separately. The 4-6% reduction in project generated traffic volumes generally represents trips that are internally captured, (i.e., trips that originate within the project and have another land use within the project as a destination).

Mixed-use developments like the proposed Project are becoming more common and the traffic engineering industry is becoming more and more involved in researching the travel characteristics of these developments. National, statewide, and local research has recently been conducted and is now ongoing to better understand the characteristics of mixed-use development trip generation. Some of the more well-know research found the following results:

- *In Measuring Trip from Mixed-Use Development: A Six-Region Study*, trip generation surveys showed that Mixed-Use Developments “average internal capture rates vary from a low of 8% for Atlanta to a high of 28% for Houston.”
- *In Analysis of Trip Generation Estimates for Mixed-Use Development*, sample surveys taken at Mixed-Use developments found that “the total site peak period internal capture rates achieved at all three locations had fairly high rates with a minimum of 25% and a maximum of 50%.”

- *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments* states “The other widely used approach is a policy determined flat percentage reduction in external trips. Such percentages are established by local planning, zoning, or transportation engineering officials for use in TIAs [traffic impact analyses] prepared to support applications for zoning, subdivision, site plan approval, or access permits. The percentages are most typically in the range of 10%, but were found to range between less than 5% and as much as 25%.”
- *Comparing Methodologies for Estimating Trip Internalization of Mixed-Use Development* tested five different trip generation methodologies by estimating the number of net new trips generated after consideration of the mixed-use nature of two large developments and one mixed-use district. The study found that estimated internal capture reductions when compared to “single use land use” trip generation estimates for the projects averaged 24.4%. When compared to actual traffic counts of vehicles entering/leaving the three sites, the reduced net new projections still overestimated the actual counts by over 16%.

The “state of the practice” is moving toward the use of a blended trip generation rate for mixed use development that takes into account the internalization of trips and the shift of mode from auto to pedestrian and transit within these types of projects. As can be seen above, the actual experience at mixed-use developments shows project trip generation totals that are 15-25% below the estimates produced by the single use, free-standing trip generation rates.

Clearly, a maximum 6% reduction provided by the blended rate and the discount in Project trip generation described in **Table 3-3** represents a conservative assumption in relation to the actual trip generation experience of Mixed-Use developments.

TABLE 3-1
Project Only Trip Generation Table
(Project Phase 1)

Driveway Rates
Proposed Project - Phase 1 (Blocks D & E)

Use	Amount	Trip	ADT	AM Peak Hour					PM Peak Hour				
				%*	#	In : Out	In	Out	%*	#	In : Out	In	Out
Corporate Office	245,000 SF	10 /KSF	2,450	15%	368	9 : 1	331	37	15%	368	1 : 9	37	331
Multi-Tenant Office	291,000 SF	$\frac{\ln(T)=0.756}{\ln(x)+3.95}$	3,786	13%	492	9 : 1	443	49	14%	530	2 : 8	106	424
Retail	100,650 SF	40 /KSF	4,026	3%	121	6 : 4	72	48	9%	362	5 : 5	181	181
TOTAL			10,262		980		846	134		1,260		324	936

Mixed Use Reductions

Use	Amount	Trip	ADT	AM Peak Hour					PM Peak Hour				
				%*	#	In : Out	In	Out	%*	#	In : Out	In	Out
Corporate Office	245,000 SF	10 /KSF	2,450	15%	368	9 : 1	331	37	15%	368	1 : 9	37	331
Multi-Tenant Office	291,000 SF	$\frac{\ln(T)=0.756}{\ln(x)+3.95}$	3,786	13%	492	9 : 1	443	49	14%	530	2 : 8	106	424
Commercial Office Reduction %			3%		5%		5%	5%		4%		4%	4%
Sub-Total Commercial Office Reduction			187		43		39	4		36		6	30
Retail	100,650 SF	40 /KSF	4,026	3%	121	6 : 4	72	48	9%	362	5 : 5	181	181
Sub-Total Commercial Retail Reduction			187		43		39	4		36		6	30
TOTAL REDUCTION			374		86		78	8		72		12	60

Notes:

* = Source: City of San Diego Trip Generation Manual, May 2003

KSF = 1,000 Square Foot

TABLE 3-1
Project Only Trip Generation Table
(Project Phase 1)

Condition	ADT	NET NEW TRIPS					
		AM Peak Hour			PM Peak Hour		
		#	In	Out	#	In	Out
Proposed Project	10,262	980	846	134	1,260	324	936
Mixed Use Reductions	374	86	78	8	72	12	60
TOTAL	9,888	894	768	126	1,188	312	876

Notes:

* = Source: City of San Diego Trip Generation Manual, May 2003

TABLE 3-2
Project Only Trip Generation Table
(Project Phase 1 & 2)

Driveway Rates
Proposed Project (Blocks A, D, & E)

Use	Amount	Trip	ADT	AM Peak Hour					PM Peak Hour				
				% *	#	In	Out	In	Out	% *	#	In	Out
Corporate Office	245,000 SF	10 /KSF	2,450	15%	368	9 : 1	331	37	15%	368	1 : 9	37	331
Multi-Tenant Office	291,000 SF	$\frac{\ln(T) = 0.756}{\ln(x) + 3.95}$	3,786	13%	492	9 : 1	443	49	14%	530	2 : 8	106	424
Community Shopping Center	166,260 SF	Blended Rate**	11,019	3%	331	6 : 4	198	132	10%	1,102	5 : 5	551	551
Multi-Family Residential	194 DU	6 /DU	1,164	8%	93	2 : 8	19	74	10%	116	7 : 3	81	35
TOTAL			18,419		1,283		991	293		2,116		775	1,341

Mixed Use Reductions

Use	Amount	Trip	ADT	AM Peak Hour					PM Peak Hour				
				% *	#	In	Out	In	Out	% *	#	In	Out
Corporate Office	245,000 SF	10 /KSF	2,450	15%	368	9 : 1	331	37	15%	368	1 : 9	37	331
Multi-Tenant Office	291,000 SF	$\frac{\ln(T) = 0.756}{\ln(x) + 3.95}$	3,786	13%	492	9 : 1	443	49	14%	530	2 : 8	106	424
Commercial Office Reduction %			3%		5%		5%	5%		4%		4%	4%
Sub-Total Commercial Office Reduction			187		43		39	4		36		6	30
Multi-Family Residential	194 DU	6 /DU	1,164	8%	93	2 : 8	19	74	10%	116	7 : 3	81	35
Residential Reduction %			10%		8%		8%	8%		10%		10%	10%
Sub-Total Residential Reduction			116		7		1	6		12		8	3
Community Shopping Center	166,260 SF	Blended Rate**	11,019	3%	331	6 : 4	198	132	10%	1,102	5 : 5	551	551
Commercial Retail Reduction			303		50		40	10		48		14	34
Sub-Total Commercial Retail Reduction			10,716		280		158	122		1,054		537	517
TOTAL REDUCTION			607		101		80	21		95		28	67

Notes:

* = Source: City of San Diego Trip Generation Manual, May 2003

** = Blended Rate: 100,650 sf @ 40/ksf = 4,026 ADT and 30,000 sf @ 150/ksf = 4,500 ADT, and 35,610 sf @ 70/ksf = 2,493 ADT; total ADT is 11,019.

DU = Dwelling Unit

KSF = 1,000 Square Foot

TABLE 3-2
Project Only Trip Generation Table
(Project Phase 1 & 2)

Condition	ADT	NET NEW TRIPS					
		AM Peak Hour			PM Peak Hour		
		#	In	Out	#	In	Out
Proposed Project	18,419	1,283	991	293	2,116	775	1,341
Mixed Use Reductions	607	101	80	21	95	28	67
TOTAL	17,812	1,182	910	272	2,021	747	1,273

Notes:

* = Source: City of San Diego Trip Generation Manual, May 2003

TABLE 3-3
Project Only Trip Generation Table
(Project Build-out)

Driveway Rates
Proposed Project

Use	Amount		Trip	ADT	AM Peak Hour					PM Peak Hour				
					%*	#	In	Out	In	Out	%*	#	In	Out
Corporate Office	245,000	SF	10 /KSF	2,450	15%	368	9 : 1	331	37	15%	368	1 : 9	37	331
Multi-Tenant Office	291,000	SF	$\frac{\ln(T)=0.756}{\ln(x)+3.95}$	3,786	13%	492	9 : 1	443	49	14%	530	2 : 8	106	424
Hotel	150	Rms	10 /Rm	1,500	6%	90	6 : 4	54	36	8%	120	6 : 4	72	48
Community Shopping Center	220,000	GLSF	Blended Rate**	14,781	3%	443	6 : 4	266	177	10%	1,478	5 : 5	739	739
Cinema ¹	10	screens	220 /screen	2,200	0%	0	0 : 0	0	0	24	240	41 : 59	98	142
Multi-Family Residential	608	DU	6 /DU	3,648	8%	292	2 : 8	58	233	10%	365	7 : 3	255	109
TOTAL				28,365		1,685		1,152	533		3,100		1,308	1,793

Mixed Use Reductions

Use	Amount		Trip	ADT	AM Peak Hour					PM Peak Hour				
					%*	#	In	Out	In	Out	%*	#	In	Out
Corporate Office	245,000	SF	10 /KSF	2,450	15%	368	9 : 1	331	37	15%	368	1 : 9	37	331
Multi-Tenant Office	291,000	SF	$\frac{\ln(T)=0.756}{\ln(x)+3.95}$	3,786	13%	492	9 : 1	443	49	14%	530	2 : 8	106	424
Commercial Office Reduction %				3%		5%		5%	5%		4%		4%	4%
Sub-Total Commercial Office Reduction				187		43		39	4		36		6	30
Hotel	150	Rms	10 /Rm	1,500	6%	90	6 : 4	54	36	8%	120	6 : 4	72	48
Multi-Family Residential	608	DU	6 /DU	3,648	8%	292	2 : 8	58	233	10%	365	7 : 3	255	109
Residential Reduction %				10%		8%		8%	8%		10%		10%	10%
Sub-Total Residential Reduction				515		31		9	22		48		33	16
Community Shopping Center	220,000	GLSF	Blended Rate**	14,781	3%	443	6 : 4	266	177	10%	1,478	5 : 5	739	739
Cinema ¹	10	screens	220 /screen	2,200	0%	0	0 : 0	0	0	24	240	41 : 59	98	142
Commercial Retail Reduction				702		74		48	26		84		38	46
Sub-Total Commercial Retail Reduction				16,279		370		218	152		1,634		799	835
TOTAL REDUCTION				1,404		147		95	52		169		77	92

Notes:

* = Source: City of San Diego Trip Generation Manual, May 2003

** = Blended Rate: 100,650sf @ 40ksf = 4,026 ADT & 30,000sf @ 150ksf = 4,500 ADT & 89,350sf @ 70ksf = 6,255 ADT, so the total is 14,781 ADT.

¹ = Cinema trip rate is based on ITE's Trip Generation, 8th edition, Land Use 443. Phasing options for a cinema ranging from 8 to 10 screens is discussed in Section 14.0

DU = Dwelling Unit

KSF = 1,000 Square Foot GLSF = Gross Leasable Square Foot

Rm = Room

TABLE 3-3
Project Only Trip Generation Table
(Project Buildout)

Condition	ADT	NET NEW TRIPS					
		AM Peak Hour			PM Peak Hour		
		#	In	Out	#	In	Out
Proposed Project	28,365	1,685	1,152	533	3,100	1,308	1,793
Mixed Use Reductions	1,404	147	95	52	169	77	92
TOTAL	26,961	1,538	1,057	481	2,932	1,231	1,701

Notes:

* = Source: City of San Diego Trip Generation Manual, May 2003

3.2 PROJECT ONLY TRAFFIC

Figure 3-1 shows the project only trip distribution percentages which were derived from SANDAG's Series 11 Traffic Model at full build-out of the project. The traffic model distributed project traffic 45% west towards the I-5 freeway. 6% of project traffic is distributed on El Camino Real north of Del Mar Heights Rd. Although the project has been analyzed in phases, the external distribution percentages remain the same. For example, the project distribution west of Third Avenue on Del Mar Heights Rd. is 45% for all phases. The project distribution south of Del Mar Highlands Town Center on El Camino Real is 17% for all phases. The distribution percentages change slightly on Del Mar Heights Road between Third Avenue and El Camino Real from phase to phase. A slight change in distribution occurs from phase to phase on El Camino Real between Del Mar Heights Road and Del Mar Highlands Town Center. Chapter 12 of this report shows the various distributions on Del Mar Heights Rd. and El Camino Real between access points based on the project phase.

Project Phase 1 – Figure 3-2 shows the project only average daily traffic volumes for Project Phase 1 which are based on the daily new traffic generation from **Table 3-1** and the distribution of project only traffic from **Figure 3-1**.

Project Phase 1 & 2 – Figure 3-3 shows the project only average daily traffic volumes for Project Phase 1 & 2 which are based on the daily new traffic generation from **Table 3-2** and the distribution of project only traffic from **Figure 3-1**.

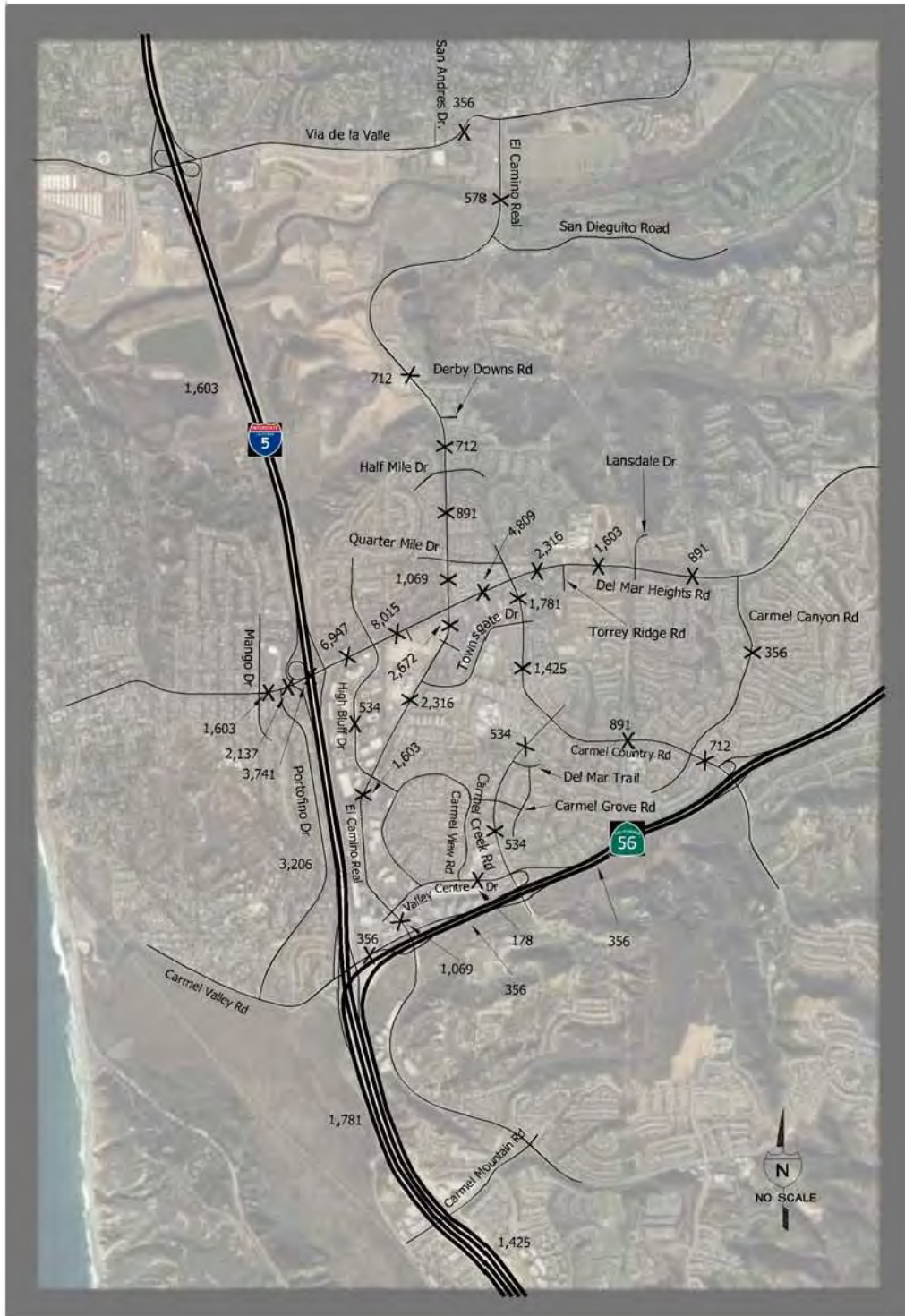
FIGURE 3-1
Project Only Distribution Percentages
(Project Build-out)



FIGURE 3-2
Project Only Average Daily Traffic Volumes
(Project Phase 1)



FIGURE 3-3
Project Only Average Daily Traffic Volumes
(Project Phase 1 & 2)



Project Build-out – **Figure 3-4** shows the project only average daily traffic volumes for Project Build-out which are based on the daily new traffic generation from **Table 3-3** and the distribution of project only traffic from **Figure 3-1**.

As previously mentioned, project build-out refers to the final phase of the project or phases 1, 2, & 3. Phase 3 is planned to start construction in 2015 even if Phases 1 and 2 are not completely built. Year 2030 relates to SANDAG's Series 11 Regional traffic forecast used in this analysis, not build-out of the project. A full discussion of the regional traffic model can be found in Section 12.0 of this report.

Figure 3-5 shows the AM/PM peak hour project only traffic for Project Phase 1.

Figure 3-6 shows the AM/PM peak hour project only traffic for Project Phase 1 & 2.

Figure 3-7 shows the AM/PM peak hour project only traffic for Project Build-out.

FIGURE 3-4
Project Only Average Daily Traffic Volumes
(Project Build-out)



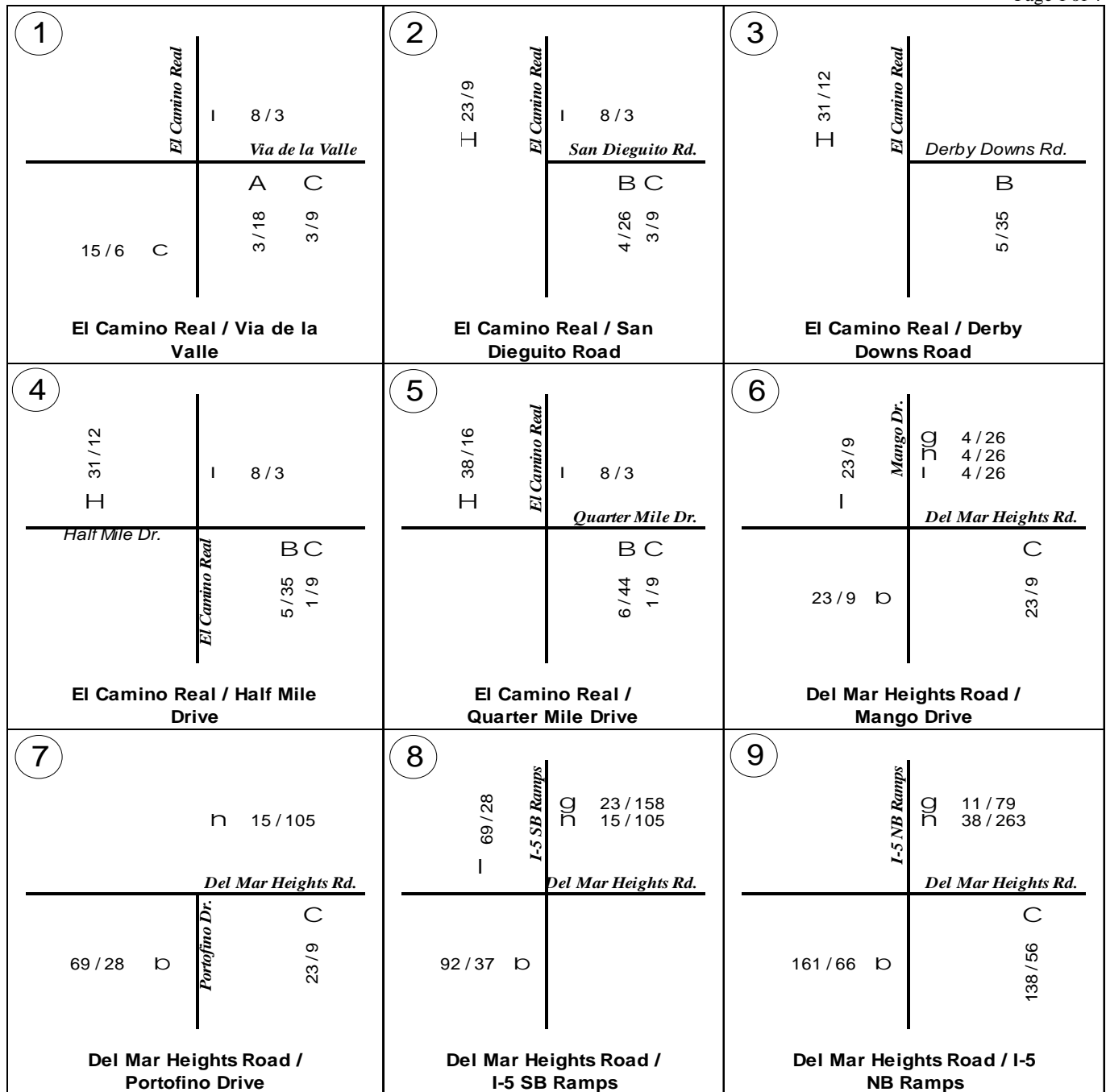


FIGURE 3-5

**Project Only AM / PM Peak Hour Traffic
(Project Phase 1)**

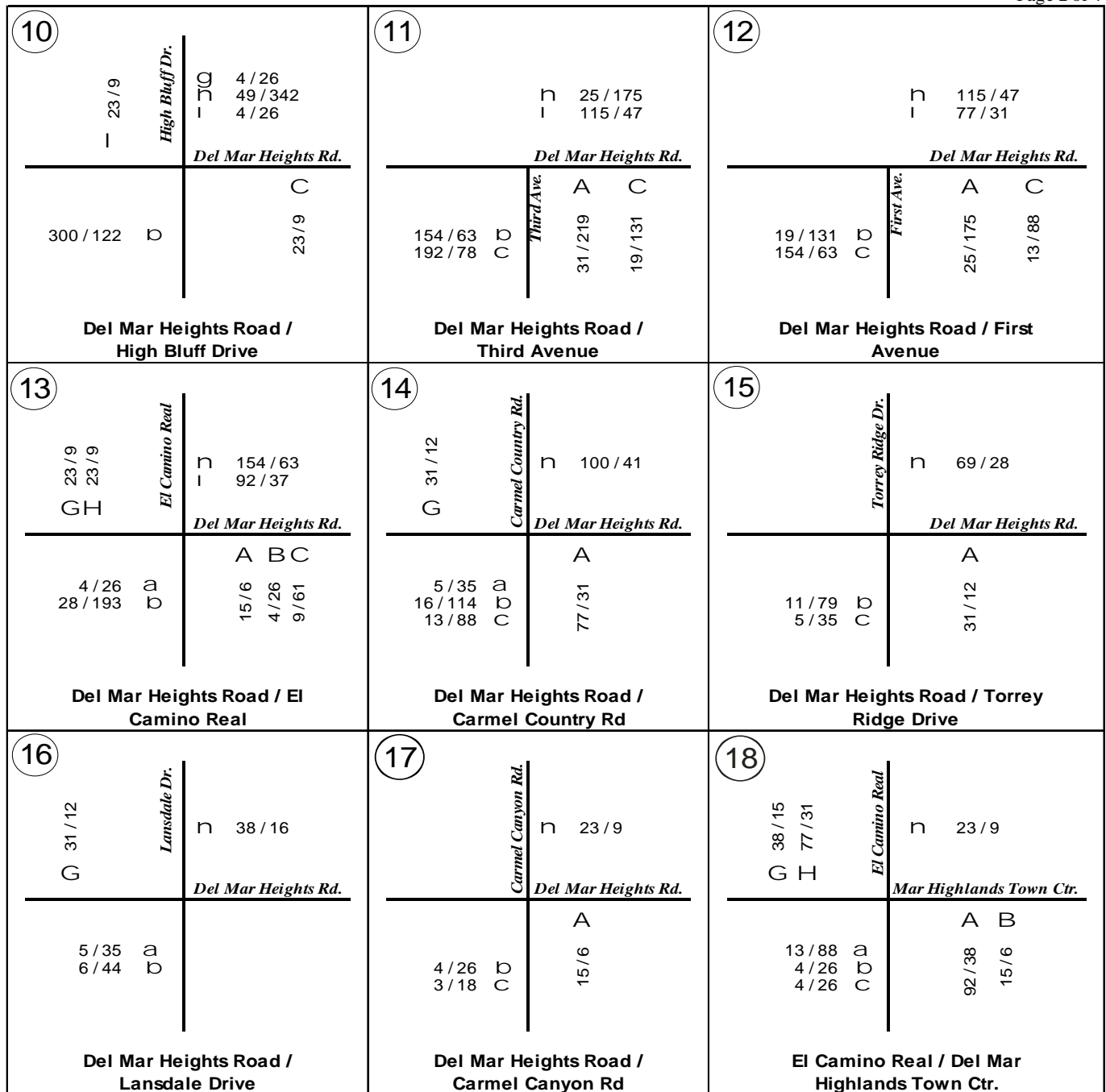


FIGURE 3-5
Project Only AM / PM Peak Hour Traffic
(Project Phase 1)

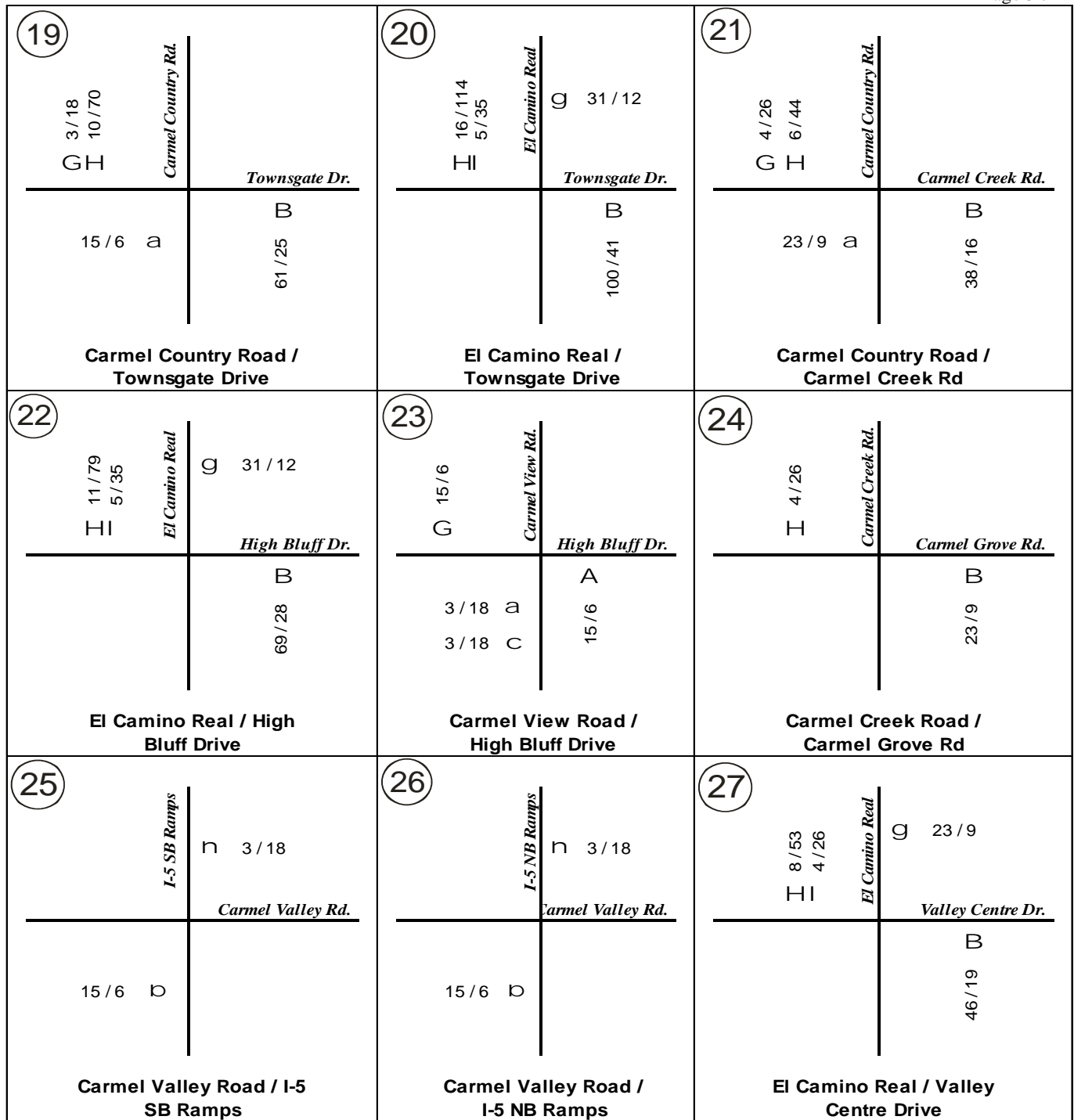


FIGURE 3-5

Project Only AM / PM Peak Hour Traffic
(Project Phase 1)

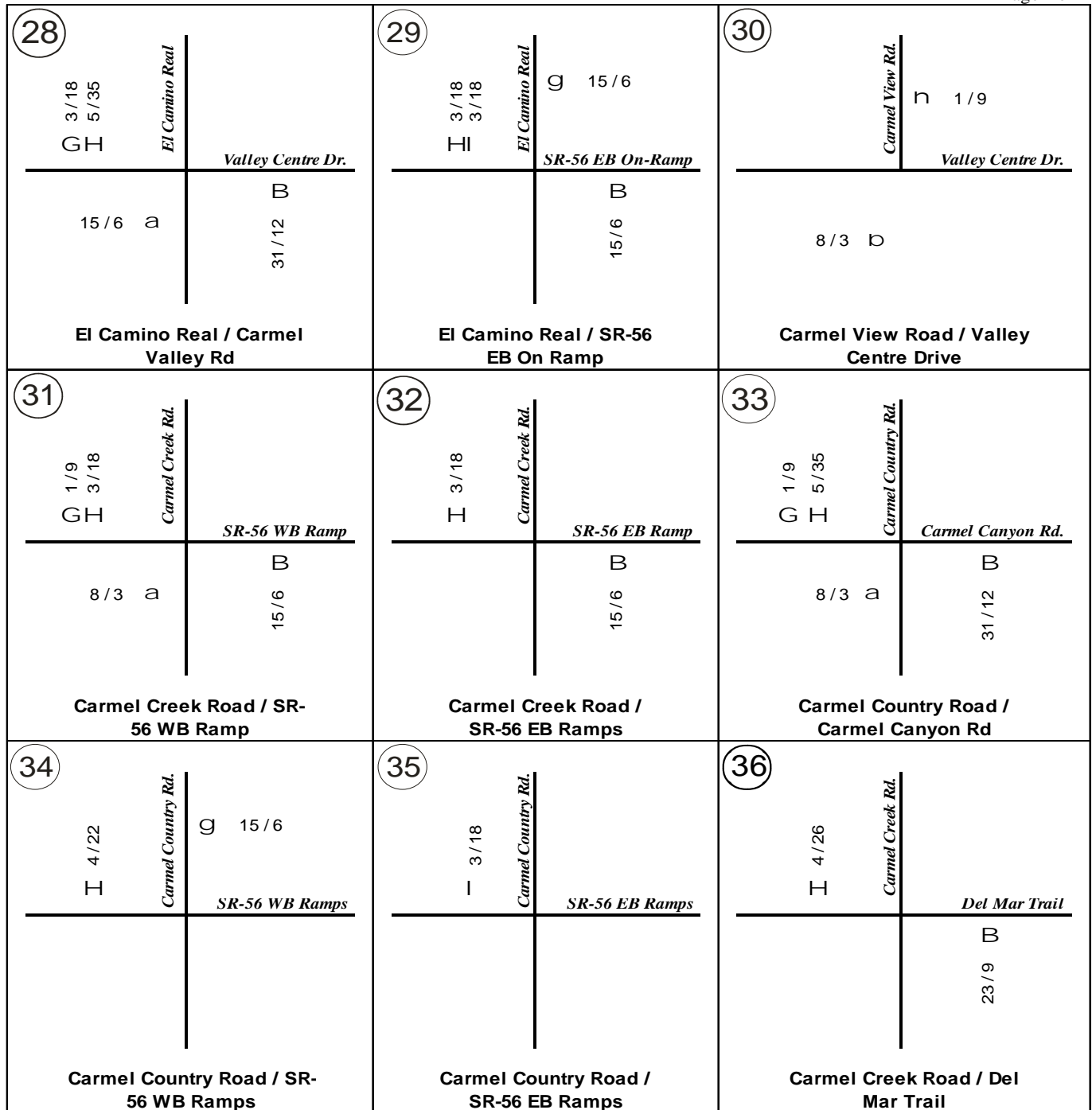


FIGURE 3-5
Project Only AM / PM Peak Hour Traffic
(Project Phase 1)

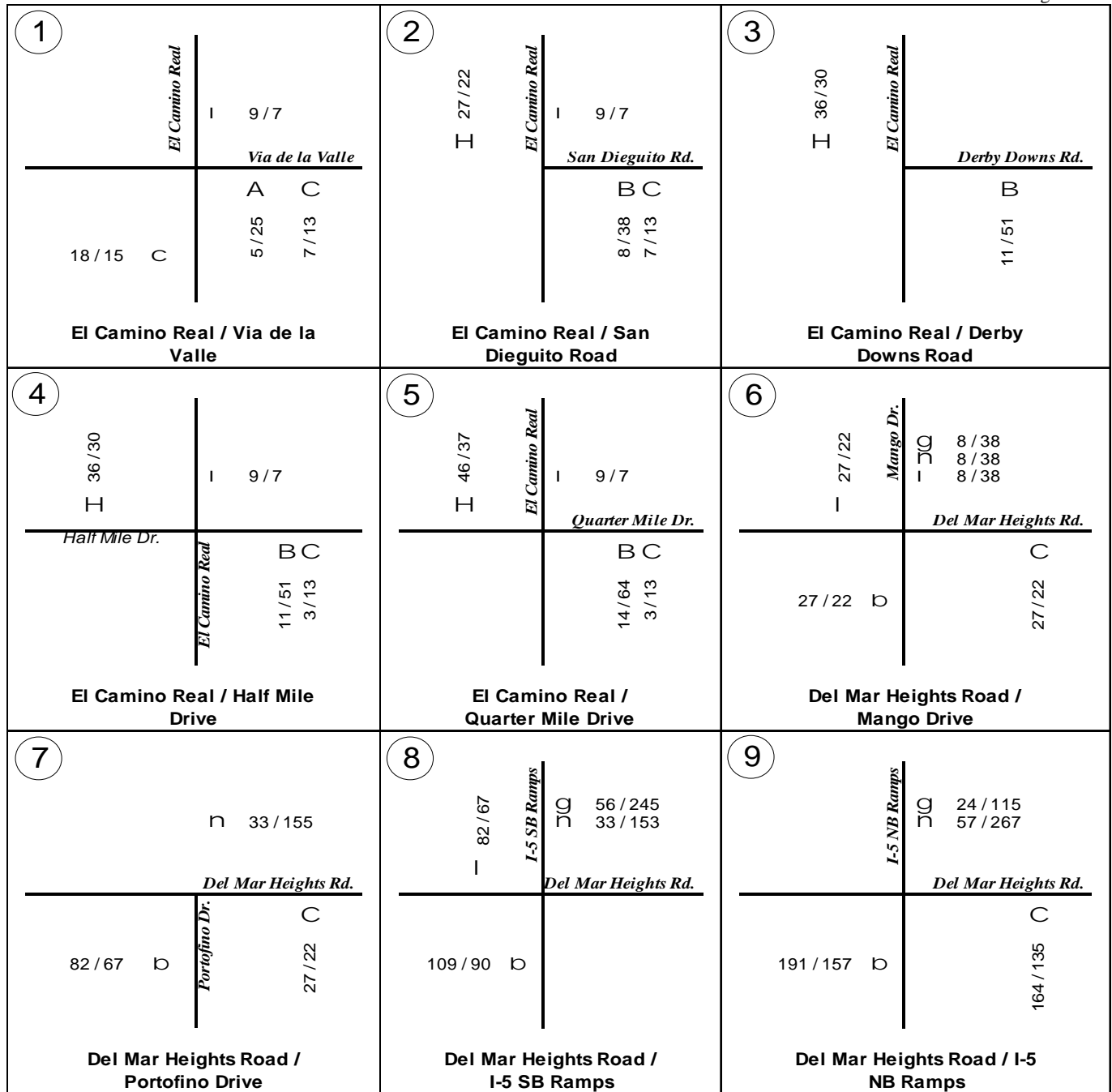


FIGURE 3-6

**Project Only AM / PM Peak Hour Traffic
(Project Phase 1 & 2)**

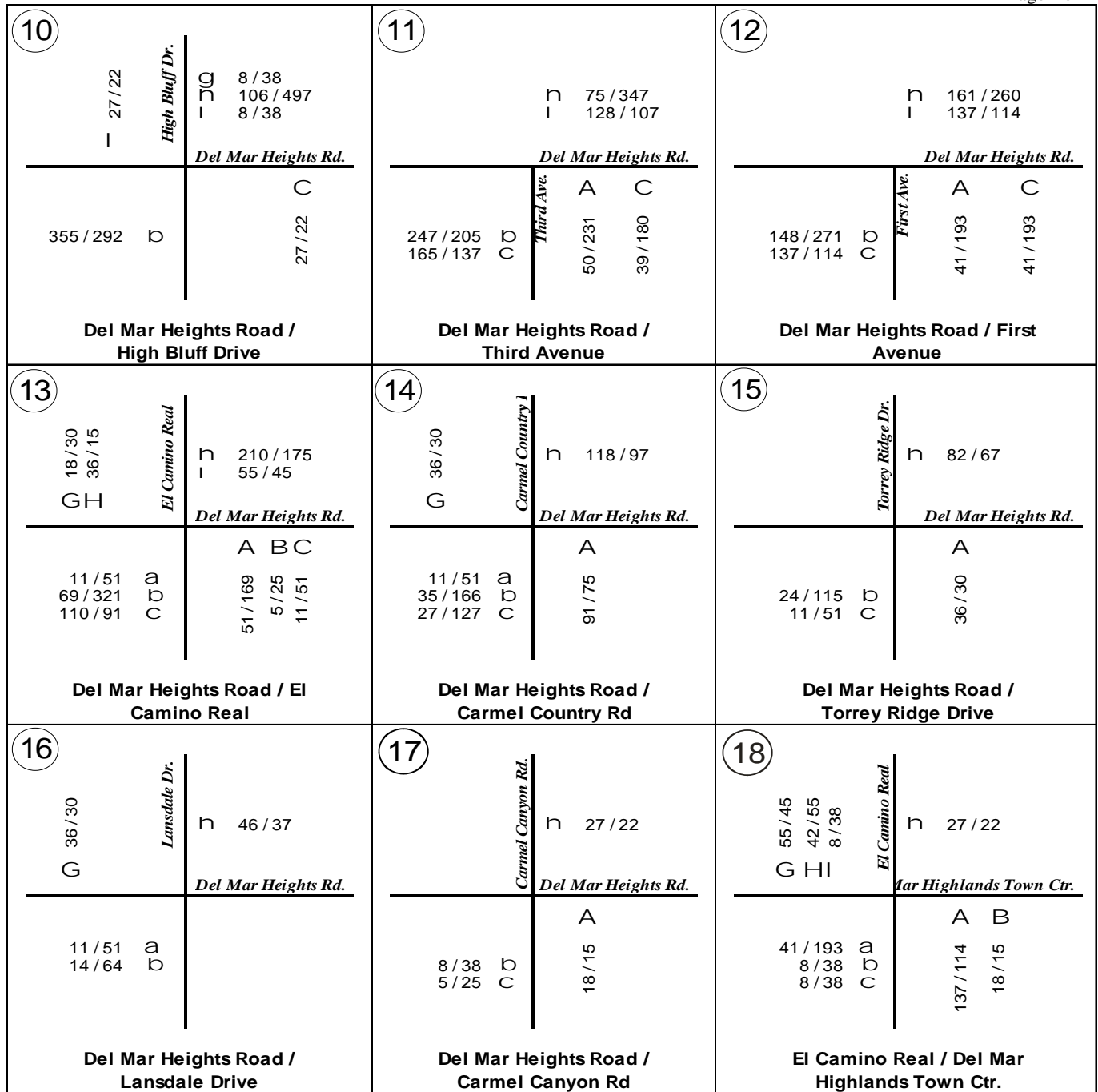


FIGURE 3-6
Project Only AM / PM Peak Hour Traffic
(Project Phase 1 & 2)

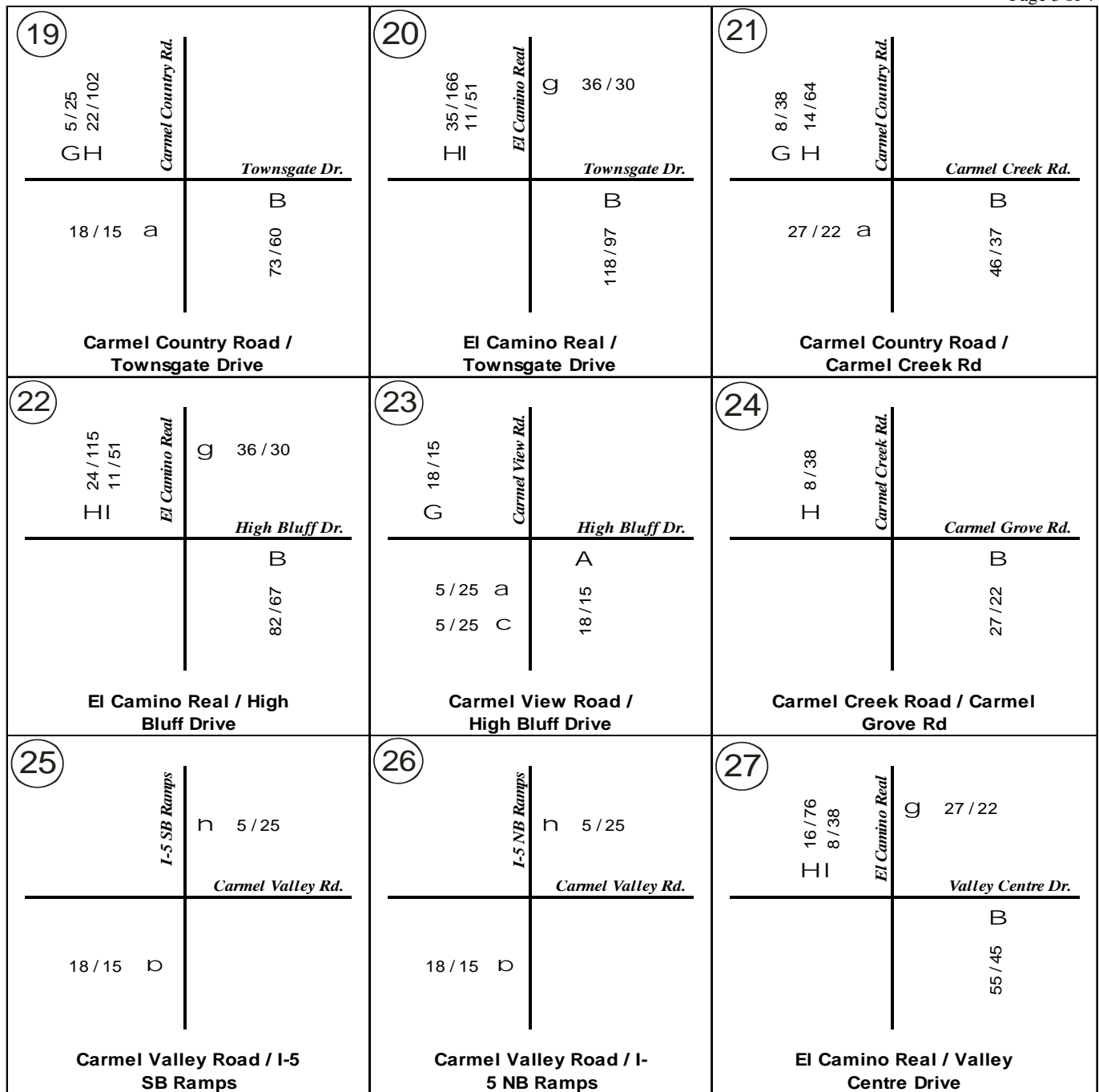


FIGURE 3-6
Project Only AM / PM Peak Hour Traffic
(Project Phase 1 & 2)

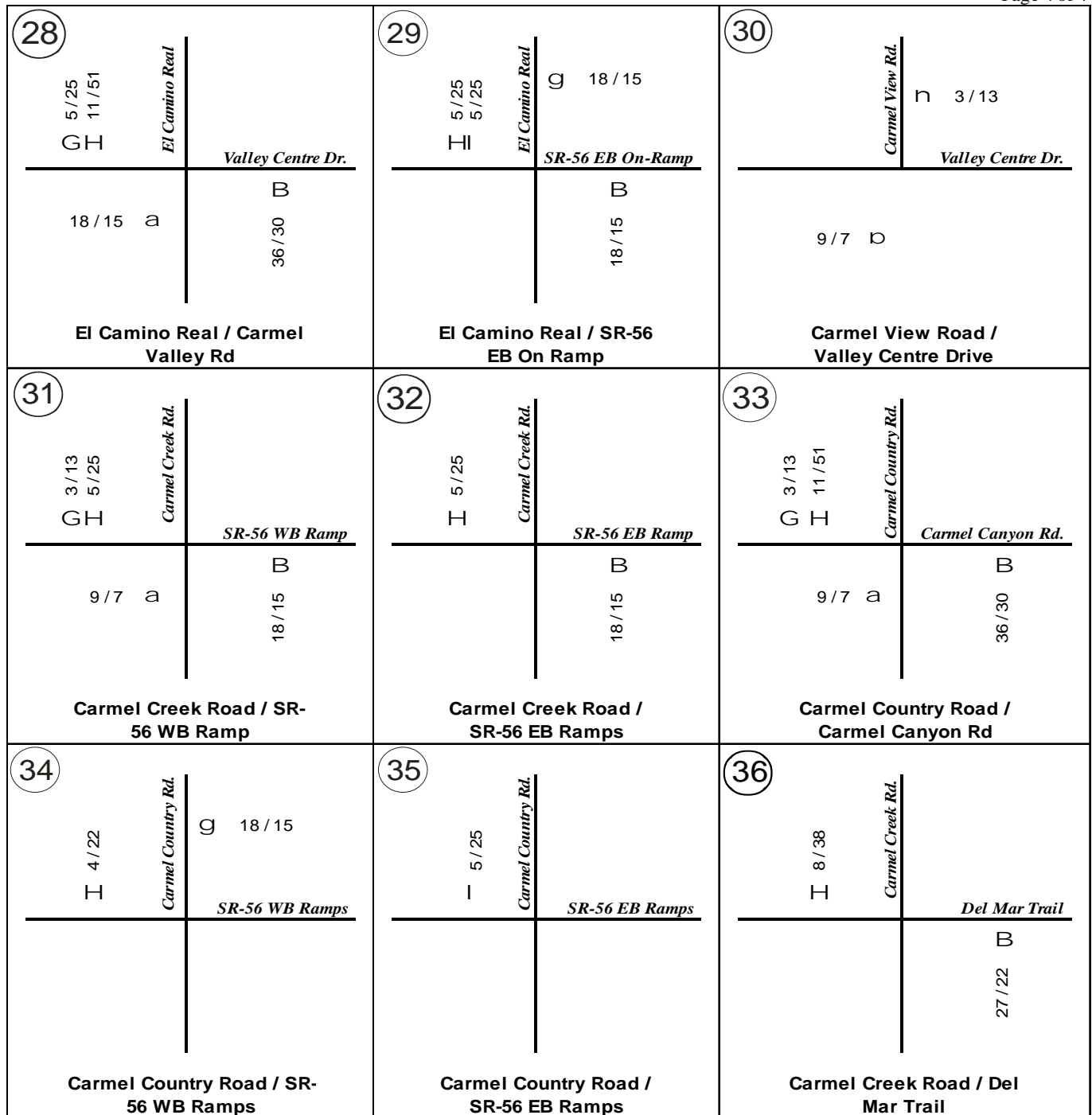


FIGURE 3-6

**Project Only AM / PM Peak Hour Traffic
(Project Phase 1 & 2)**

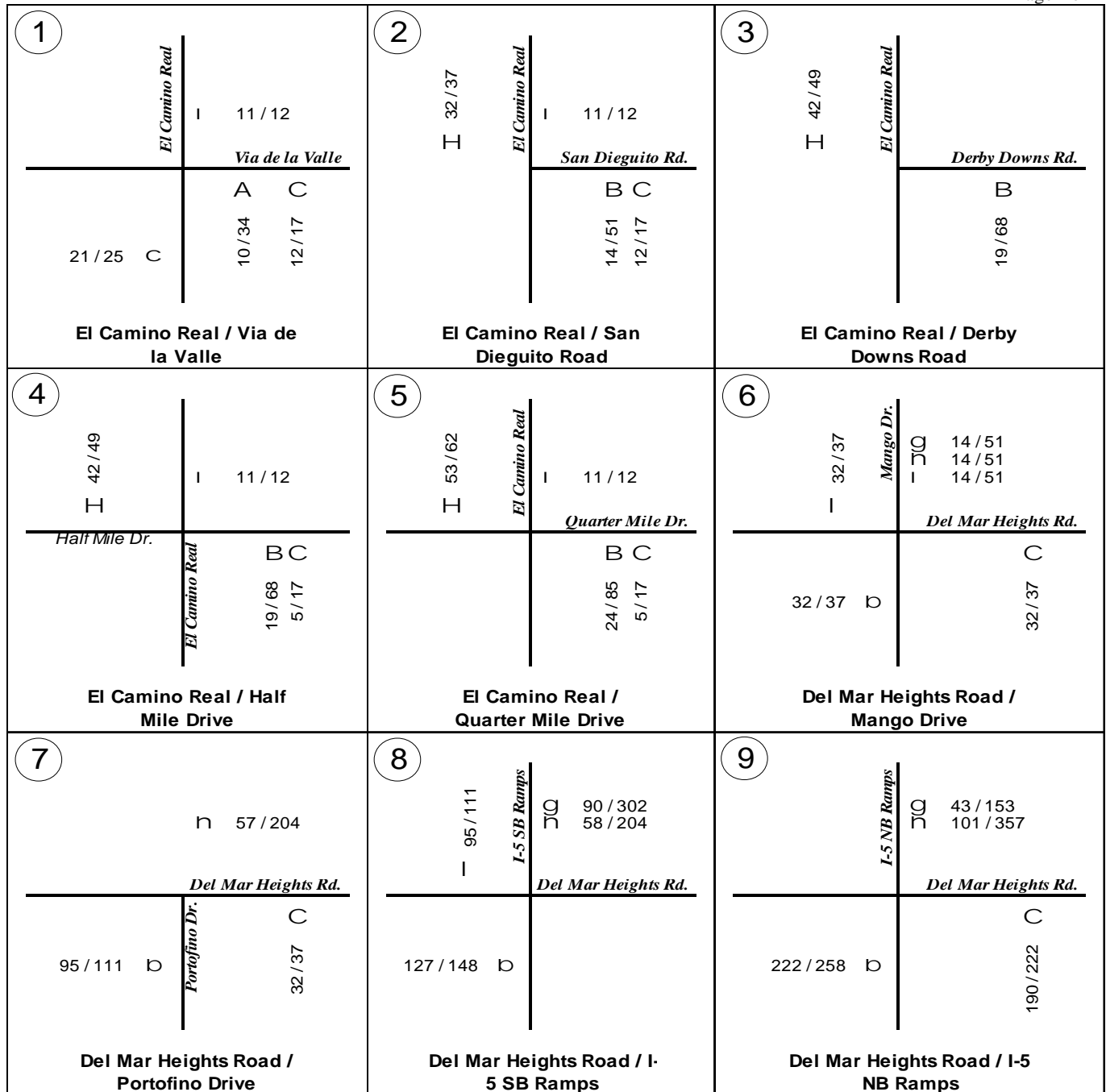


FIGURE 3-7
Project Only AM / PM Peak Hour Traffic
(Project Buildout)

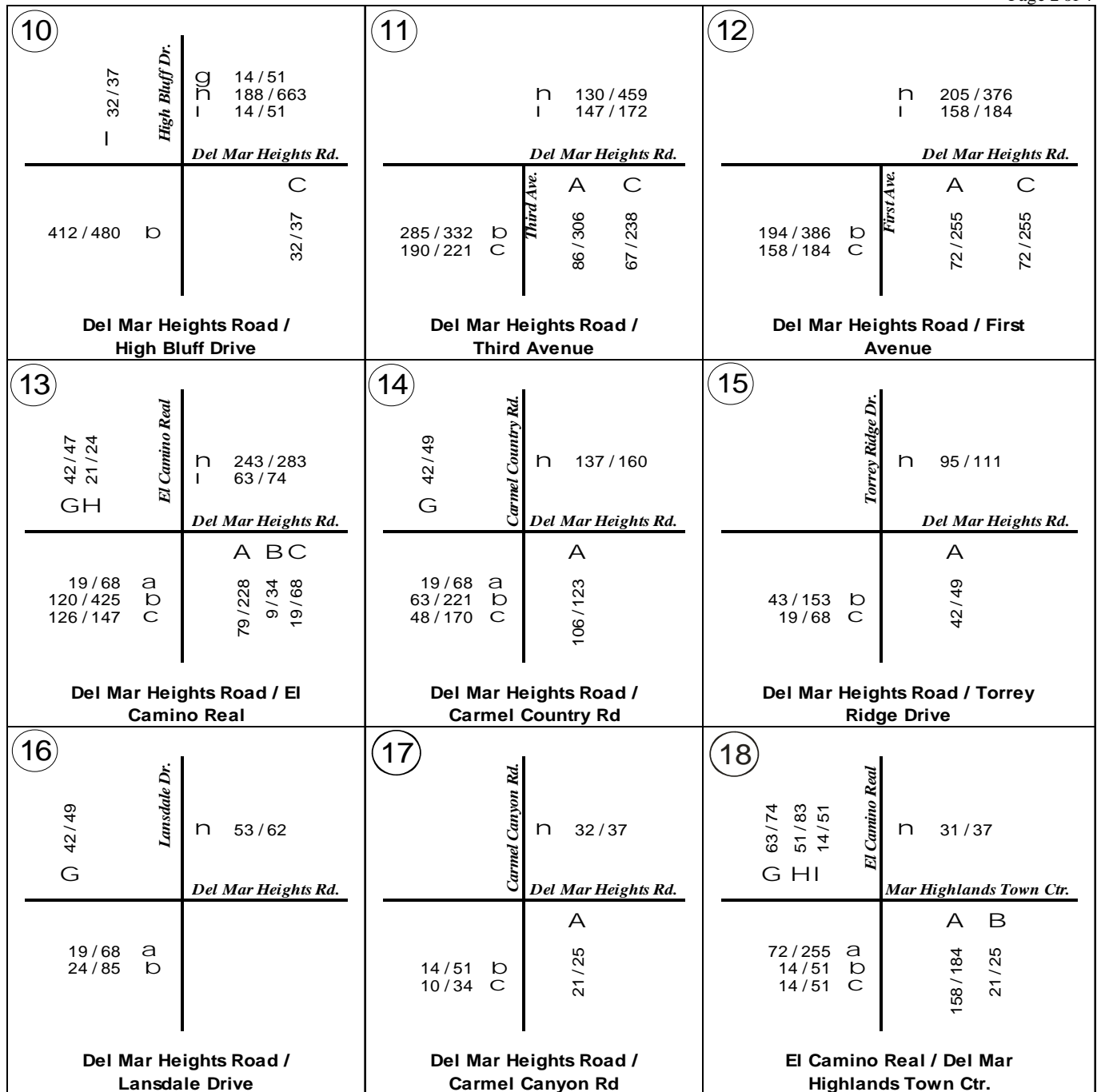


FIGURE 3-7
Project Only AM / PM Peak Hour Traffic
(Project Buildout)

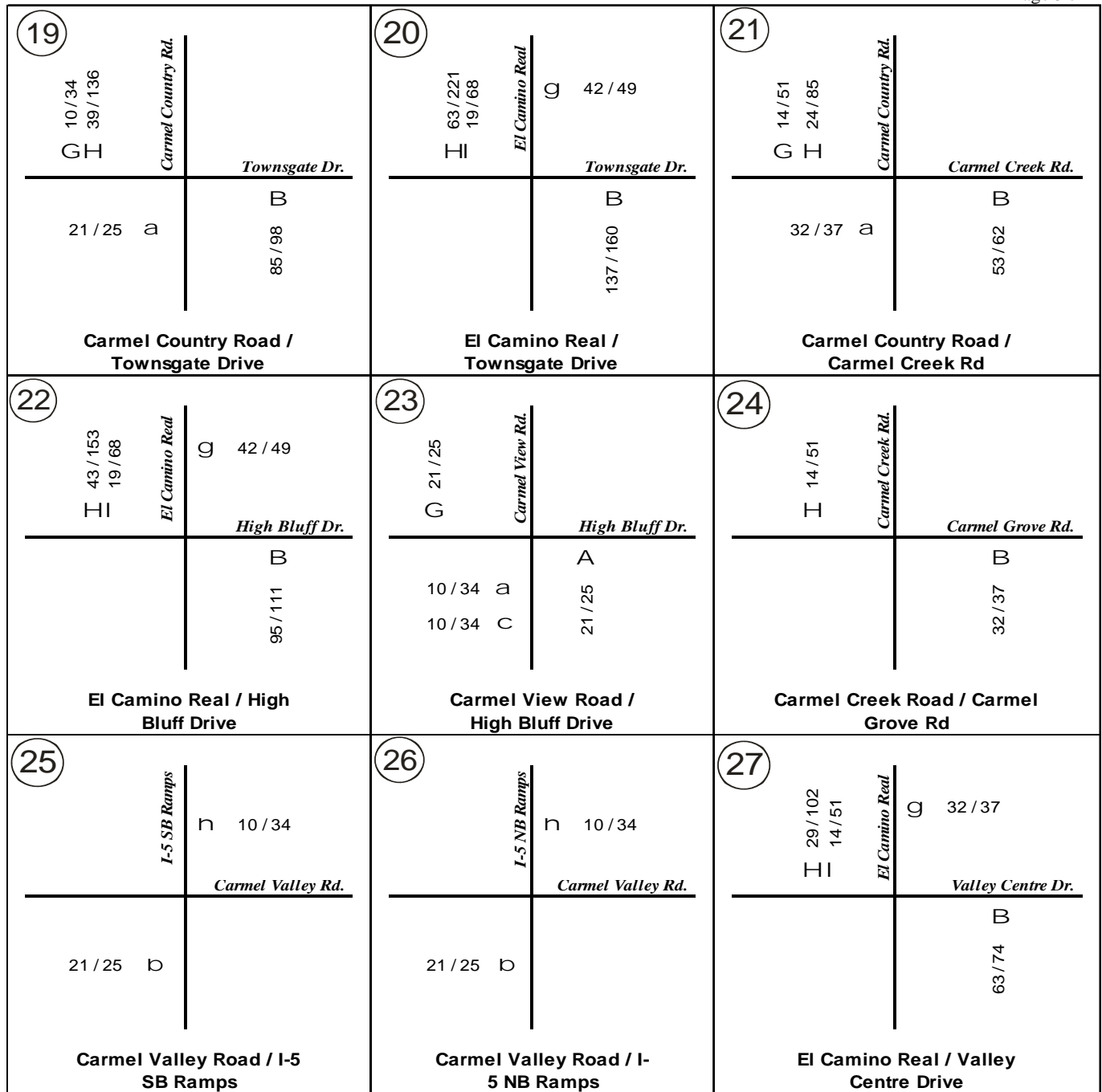


FIGURE 3-7
Project Only AM / PM Peak Hour Traffic
(Project Buildout)

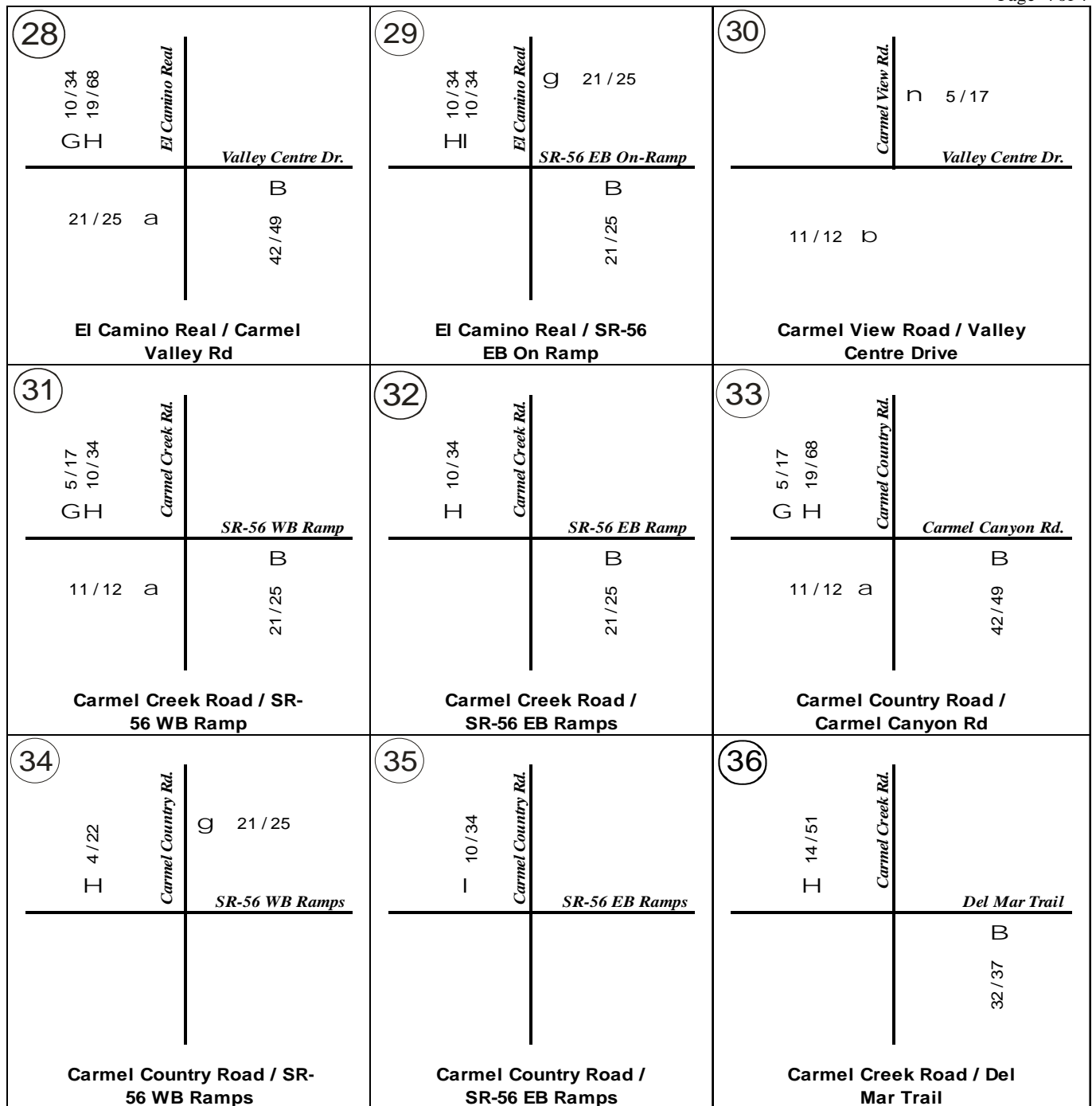


FIGURE 3-7
Project Only AM / PM Peak Hour Traffic
(Project Buildout)

4.0 METHODOLOGY

This report was prepared pursuant to the City's *Traffic Impact Study Manual* and recent California case law applying the California Environmental Quality Act to traffic studies prepared in connection with environmental impact reports. See *Sunnyvale West Neighborhood Association v. City of Sunnyvale (2010) 190 Cal.App.4th 1351*; *Madera Oversight Coalition, Inc. v. County of Madera (2011) 199 Cal.App.4th 48*; *Pfeiffer v. City of Sunnyvale (2011) 200 Cal.App.4th 1552*.

Each chapter of this report identifies the condition being evaluated and the criteria used. In Chapter 5, the baseline condition is presented. As described in Chapter 5, the baseline condition assumes existing traffic, land uses and roadway conditions. In Chapter 6, project only traffic is added by phase and direct project impacts are determined.

In Chapter 7, other Near Term projects are discussed. Traffic from past, present, and probable future projects likely to generate traffic in the area was included.

Chapters 8 - 11 analyze near-term traffic impacts and mitigation associated with the various phases of the project including project build-out. Summary tables compare the conditions both with and without the project and identify significant intersection, segment, ramp or freeway impacts. Mitigation is also discussed.

As described above in Chapter 1, the environmental baseline for the purposes of the traffic analysis comprises conditions that existed at or around the time of publication of the NOP. Therefore, the existing plus project (build out) traffic scenario discussed in Chapter 6 comprises the project analysis. In addition

to the existing plus project scenario, the City requires a Near Term analysis. This Near Term analysis reflects changes in traffic volumes and circulation anticipated to occur prior to the time of anticipated certification of the EIR, and includes previously proposed and/or approved projects, as described in Chapter 7,

Both impacts identified in the Near Term analysis and impacts identified in the Existing-Plus-Project analysis are considered direct project impacts by the City.

For the Long Term Cumulative (Year 2030) conditions, build-out of the project is assumed and SANDAG / CALTRANS Regional Series 11 Travel Forecasts and improvement assumptions are used as the basis for evaluation. These analyses may be found in Chapters 12 and 13. The balance of the report addresses transit, Transportation Demand Management, DEIR Project Alternatives, construction traffic impacts, access, onsite facilities, and special (cinema) phasing options. See Chapters 14 through 18.

Mitigation proposed in this report includes specific improvements installed by the project or a financial contribution towards an improvement installed by others (in the case of some near term and cumulative impacts). If project traffic causes a roadway facility that operates acceptably to operate unacceptably, then the project has a significant impact. Two criteria must be met before project mitigation is proposed. First, the intersection or street segment must have an unacceptable level of service (LOS), i.e. E or F as discussed below. Second, the amount of project traffic must be significant based on the application of criteria also discussed below. For an intersection, if the change in delay is greater than 2 seconds (or 1 second when the level of service is “E” or “F” respectively), the intersection project impacts are considered significant. For a street segment, if the change in volume to capacity ratio (V/C ratio) exceeds 0.02 (or 0.01 when the level of service is “E” or “F” respectively), that street segment is considered

significantly impacted. If project traffic causes an intersection, roadway segment, or freeway segment to degrade from LOS “D” to LOS “E” or LOS “F” and exceeds the significance threshold discussed above, the project has a significant impact on the roadway facility. For freeway segments to be considered significant, the segment must operate at an unacceptable level of service and exceed a change in v/c ratio of 0.01 (or 0.005 for LOS “E” and “F”, respectively). A ramp meter impact is significant if the change in delay is greater than 2 minutes (or 1 minute for LOS “E” and “F”, respectively) using the most restrictive meter rate analysis method.

For this project, new signals are proposed at First Avenue and Third Avenue on Del Mar Heights Road. These signals are proposed to be built in advance of the project to provide safe and efficient construction access. These signals are considered project features and thus not identified as project mitigation.

4.1 CITY OF SAN DIEGO GUIDELINES

The City of San Diego has developed a Traffic Impact Study Manual (7/98). The stated purpose of the Traffic Impact Study Manual is “...to ensure consistency with all applicable City and State regulations.” The Traffic Impact Study Manual provides guidance regarding preparation of traffic impact reports in the City of San Diego. The manual includes guidelines for forecasting, trip generation and assignment, and analysis procedures.

The City’s Traffic Impact Study Manual establishes criteria which identify the allowable change in delay or volume to capacity ratio (V/C) due to project traffic. The manual also establishes criteria for measuring project impacts at intersections. This method establishes an allowable increase in delay at intersections due to the addition of project trips. The City Traffic Impact Study Manual specifies use of the most

current Highway Capacity Manual (HCM) operational method for studying intersections. The most current HCM is HCM 2000. For analyzing intersections, a software package called Highway Capacity Software (HCS) + and Synchro is used. These software packages are a direct and faithful application of the HCM methodology.

4.2 TRIP DISTRIBUTION

The projected trips were distributed based on a SANDAG Series 11 select zone assignment.

4.3 STREET LOS THRESHOLD

When analyzing street segments, the level of service (LOS) must be determined. LOS is a measure used to describe the conditions of traffic flow. LOS is expressed using letter designations from “A” to “F”. LOS “A” represents the best case, and LOS “F” represents the worst case. Generally LOS “A” through “C” represents free flowing traffic conditions with little or no delay. LOS “D” represents limited congestion and some delay, however, the duration of periods of delay is acceptable to most people. LOS “E” and “F” represent significant delays on local streets, which are generally unacceptable for urban design purposes. The LOS descriptions are from Chapter 9 of the Highway Capacity Manual (Transportation Research Board, 2000).

The City of San Diego has developed LOS threshold tables based on the different functional street classifications and their ability to carry traffic. For the City of San Diego, LOS “D” is the acceptable LOS standard for roadways and intersections.

4.4 INTERSECTION LOS PROCEDURES

The City and Regional Congestion Management Program (CMP) guidelines, as adopted by SANDAG, determine the procedures to be used for intersection peak hour analysis. To determine an intersection peak hour LOS, the CMP guidelines require use of the most recent procedure from Chapter 9 of the Highway Capacity Manual (Transportation Research Board, 2000). The procedure in Chapter 9 which is used to analyze signalized intersection is the “operational method.” This method determines LOS based on total vehicle delay expressed in seconds. **Table 4-1** shows the LOS based upon the delay. A computer program is used to complete the analysis. As discussed above, the City and CMP guidelines have established LOS “D” or better as the objective for intersections and street segments.

TABLE 4-1

Level of Service Criteria For Signalized Intersections

Level of Service	Control Delay Per Vehicle (sec)
A	#10
B	>10 and #20
C	>20 and #35
D	>35 and #55
E	>55 and #80
F	>80

Source: Table 9-1, Highway Capacity Manual, 2000

Level of Service Criteria For Unsignalized Intersections

Level of Service	Control Delay Per Vehicle (sec)
A	#10
B	>10 and #15
C	>15 and #25
D	>25 and #35
E	>35 and #50
F	>50

Source: Table 10-7, Highway Capacity Manual, 2000

4.5 CMP ENHANCED CEQA REVIEW GUIDELINES

As discussed above, the Congestion Management Program regional guidelines were developed by SANDAG to provide a set of procedures for completing enhanced CEQA review for certain projects. The guidelines, prepared by the San Diego Association of Governments (SANDAG), stipulate that any development project generating 2,400 or more average daily trips, or 200 or more peak hour trips, must be evaluated in accordance with the requirements of the Regional CMP. The CMP analysis must include the traffic level of service (LOS) impacts on affected freeways and Regionally Significant Arterial (RSA) systems, which includes all designated CMP roadways. In order to conform to the region’s CMP, local jurisdictions must adopt and implement a land use analysis program to assess impacts of land use decisions on the regional transportation system.

A review of the trip generation from **Table 3-3** compared to the CMP requirements is summarized below:

	One Paseo	CMP Requirements
ADT	26,961	> 2,400
Peak Hour	1,701 (PM)	> 200

As shown, the proposed project is above the threshold for ADT’s, and it is also above the threshold for peak hour trips, therefore, a CMP analysis level of analysis is required.

City of San Diego Guidelines are consistent with the methodologies contained in the Congestion Management Program. Further, City of San Diego significance determination Guidelines are also more

restrictive than those contained in the Congestion Management Program. Therefore, CMP requirements are met on this analysis.

4.6 CALTRANS FREEWAY SEGMENT LOS PROCEDURES

To determine the LOS of main lane freeway segments, Caltrans Guide for the Preparation of Traffic Impacts Studies, December 2002, specifies the use of the Highway Capacity Manual operational analysis. This method determines levels of service based on the volume to capacity (V/C) ratio. The resulting V/C is then compared to accepted ranges of V/C values corresponding to the various levels of service for each of the facility classifications. The corresponding level of service represents an approximation of existing or anticipated future freeway operating conditions in the peak direction of travel during the peak hour. Traffic count data, peak hour factors, and truck factors are provided on the Department of Transportation website in the Business section under Traffic Counts.

4.7 SIGNIFICANCE THRESHOLDS

As discussed above, two criteria must be met before project traffic mitigation is required. First, an unacceptable LOS (i.e. E or F) must occur or degrade from D to E, and second, significance thresholds for only project traffic must be exceeded. The City has significance thresholds which are summarized in **Table 4-2**. These thresholds are used in this analysis along with levels of service to determine if project mitigation is required. **Table 4-3** shows the roadway classifications for the City of San Diego.

TABLE 4-2

Significance Thresholds

Level of Service with Project *	Allowable Change Due To Project Impact **					
	Freeways		Roadway Segments		Intersections	Ramp Metering
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)
E (or ramp meter delays above 15 min.)	0.010	1.0	0.02	1.0	2.0	2.0
F (or ramp meter delays above 15 min.)	0.005	0.5	0.01	0.5	1.0	1.0

Note 1: The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 minutes.

Note 2: The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 minute.

* All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City's Traffic Impact Study Manual. The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped locations). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

** If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The project applicant shall then identify feasible improvements (within the Traffic Impact Study) that will restore/and maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see above * note), or if the project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating the project's direct significant and/or cumulatively considerable traffic impacts.

KEY: Delay = Average control delay per vehicle measured in seconds for intersections, or minutes for ramp meters
 LOS = Level of Service
 Speed = Speed measured in miles per hour
 V/C = Volume to Capacity ratio

TABLE 4-3

Roadway Classifications

STREET CLASSIFICATION	LANES	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	30,000	42,000	60,000	70,000	80,000
Primary Arterial	6 lanes	25,000	35,000	50,000	55,000	60,000
Major Arterial	6 lanes	20,000	28,000	40,000	45,000	50,000
Major Arterial	4 lanes	15,000	21,000	30,000	35,000	40,000
Collector	4 lanes	10,000	14,000	20,000	25,000	30,000
Collector (no center lane) continuous left-turn lane	4 lanes 2 lanes	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2 lanes	4,000	5,500	7,500	9,000	10,000
Collector (commercial-industrial fronting)	2 lanes	2,500	3,500	5,000	6,500	8,000
Collector (multifamily)	2 lanes	2,500	3,500	5,000	6,500	8,000
Sub-Collector (single-family)	2 lanes	—	—	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.

5.0 EXISTING CONDITIONS

For the purposes of this study, the existing environment as of the date of the environmental impact report notice of preparation dated May 25, 2010 constitutes the baseline physical conditions against which the project impacts are determined. This study also includes analysis of the potential Near Term and Horizon Year impacts of the project.

5.1 EXISTING ROADWAY FACILITIES

Del Mar Heights Road – Del Mar Heights Road has a functional classification of a five lane major between Mango Drive and Portofino Drive since there are driveways on this segment. From Portofino Drive to the I-5 northbound ramps, Del Mar Heights Road has a functional classification of a five lane primary arterial with a level of service “E” capacity of 50,000 ADT. On Del Mar Heights Road from the I-5 northbound ramps to High Bluff Drive, the roadway has a functional classification of a six lane major since there are median breaks and driveways. From High Bluff Drive to Carmel Canyon Road, Del Mar Heights Road is functionally and ultimately classified as a six lane prime arterial per the North City Future Urbanizing Area plan. On-street parking is not allowed along both sides of the roadway. The roadway width is 102 feet and the posted speed limit is 40 mph. Class II bike lanes are included on both sides of the roadway.

El Camino Real – El Camino Real has a functional classification of a two lane collector from Via de la Valle to San Dieguito Road and is primarily a north-south roadway serving a residential community. From San Dieguito Road to Del Mar Heights Road, El Camino Real is ultimately classified as a four lane major per the North City Future Urbanizing Area plan. This segment from San Dieguito Road to Del Mar

Heights Road contains a raised median with median breaks at signalized intersections and Class II bike lanes are provided in each direction. From Del Mar Heights Road to Valley Centre Drive, El Camino Real is functionally classified as a six lane major with a LOS “E” capacity of 50,000 ADT. On El Camino Real from Valley Centre Drive to Carmel Valley Road, the segment is functionally classified as a five lane major with a LOS “E” capacity of 45,000 ADT. On-street parking is not allowed along both sides of the roadway. The roadway width varies from 40 feet to 102 feet based on the roadway classification. The posted speed limit is 50 mph. Class II bike lanes are provided on the roadway except from Via de la Valle to San Dieguito Road.

Carmel Country Road – Carmel Country Road is functionally classified as a four lane major that is primarily a north-south roadway in the Carmel Valley Community Planning area. On-street parking is not allowed along both sides of the roadway. The posted speed limit is 40 mph. Class II bike lanes are provided on the roadway.

Carmel Canyon Road – Carmel Canyon Road is functionally classified as a four lane major between Del Mar Heights Road and Carmel Country Road in the Carmel Valley Community Planning area. On-street parking is not allowed along both sides of the roadway. The posted speed limit is 30 mph. Class II bike lanes are provided on the roadway.

Carmel Creek Road – Carmel Creek Road is functionally classified as a four lane major between Carmel Country Road and SR-56 Westbound ramps in the Carmel Valley Community Planning area. On-street parking is not allowed along both sides of the roadway. The roadway width is 78 feet and the posted speed limit is 30 mph. Class II bike lanes are provided on the roadway.

Valley Centre Drive – Valley Centre Drive is functionally classified as a four lane collector between Carmel View Road and Carmel Creek Road in the Carmel Valley Community Planning area. On-street parking is not allowed along both sides of the roadway. The roadway width is 73 feet and the posted speed limit is 30 mph. Class II bike lanes are provided on the roadway.

Carmel Valley Road – Carmel Valley Road is functionally classified as a six lane primary arterial between the I-5 Northbound ramps and El Camino Real in the Carmel Valley Community Planning area. On-street parking is not allowed along both sides of the roadway. The roadway width is 102 feet with no bike lanes on either side of the roadway.

High Bluff Drive – High Bluff Drive is constructed as a three lane collector on the northern portion between Del Mar Heights Road and El Camino Real. On the southern portion of High Bluff Drive, the roadway is constructed as a four lane collector. A conservative level of service “E” capacity of 15,000 average daily trips was used in the street segment analysis. On-street parking is not allowed along both sides of the roadway. The posted speed limit is 30 mph and Class II bike lanes are provided on the roadway.

Via de la Valle – Via de la Valle has a functional classification as a two lane collector between San Andres Drive and El Camino Real and an ultimate classification as a four lane major per the North City Future Urbanizing Area plan. On-street parking is not allowed along both sides of the roadway. The roadway width is 40 feet. Class II bike lanes are provided on the roadway.

Interstate 5 (I-5) – Interstate 5 is an 8-lane Interstate Freeway north-south facility providing auxiliary lanes and high-occupancy (HOV) lane in both directions. It has a posted speed limit of 65 miles per hour

and provides direct access to Encinitas, Carlsbad, Oceanside, and San Diego. Interstate 5 also provides access to Orange and Los Angeles Counties to the north. Access to the project is provided via the Del Mar Heights Road interchange.

State Route 56 (SR-56) – SR-56 is a 4-lane east-west facility providing auxiliary lanes in both directions. It has a posted speed limit of 65 miles per hour and connects Interstate 5 on the west to Interstate 15 to the east. Access to the project is provided via the El Camino Real and Carmel Country interchanges.

5.2 EXISTING TRAFFIC VOLUMES

Figure 5-1 shows the existing average weekday 24-hour traffic volumes for street segments in the project study area. Existing functional street segment classifications were used for purposes of this analysis. Traffic counts summarized on this figure were compiled by True Count mid-week (Tuesday through Thursday), April 29th – May 14th of 2009. The count data on Via de la Valle from San Andres Drive to El Camino Real (West) was provided by the Flower Hill Promenade Redevelopment traffic study dated March 3, 2009 and this count was obtained Tuesday through Thursday April 24-26, 2007, see **Appendix C**.

Appendix C includes the existing count data for street segments and intersections.



FIGURE 5-1
Existing Average Daily Traffic

5.3 STREET SEGMENT ANALYSIS

As shown on **Table 5-1**, all street segments are projected to operate at acceptable levels of service with the exception of the following street segments:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F
Via de la Valle	San Andres Dr. to El Camino Real	F

5.4 EXISTING INTERSECTIONS

Figure 5-2 shows the existing lane configurations in the study area. The proposed lane configurations at the intersection of Via de la Valle and El Camino Real is assumed and analyzed in the Year 2030 scenarios. At intersections 11, 12, and 18, the red arrows indicate the proposed lane configuration when the project access is constructed.

5.5 EXISTING INTERSECTION PEAK HOUR VOLUMES AND LOS

Figure 5-3 shows the existing AM and PM peak hour intersection traffic data which was collected at the intersections. As required by the City of San Diego, the analysis of peak hour intersection performance was based on the 2000 Highway Capacity Manual (HCM) using operational analysis procedures. A computer program, Synchro, was used to complete the analysis. Manual counts were conducted in May of 2009.

As shown on **Table 5-2**, all intersections currently operate at a level of service “D” or better during the AM and PM peak hour periods except for Carmel Creek Road at Del Mar Trail. Synchro worksheets for existing conditions may be found in **Appendix D**.

TABLE 5-1
Existing Street Segment Levels of Service

Road	Segment	Jurisd.	Functional Class.	Capacity at LOS E	Volume	V/C	LOS
Del Mar Heights Rd.	Mango Drive to Portofino Drive	SD	5-M	45,000	21,314	0.47	B
	Portofino Drive to I-5 Southbound Ramps	SD	5-PA	50,000	36,086	0.72	C
	I-5 Southbound Ramps and I-5 Northbound Ramps	SD	5-PA	50,000	40,090	0.80	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	51,625	0.86	D
	High Bluff Drive to Third Avenue	SD	PA	60,000	37,910	0.63	C
	Third Avenue to First Avenue	SD	PA	60,000	37,910	0.63	C
	First Avenue to El Camino Real	SD	PA	60,000	37,910	0.63	C
	El Camino Real to Carmel Country Road	SD	PA	60,000	32,674	0.54	B
	Carmel Country Road to Torrey Ridge Road	SD	PA	60,000	21,658	0.36	A
	Torrey Ridge Road to Lansdale Drive	SD	PA	60,000	19,071	0.32	A
Lansdale Drive to Carmel Canyon Road	SD	PA	60,000	15,188	0.25	A	
El Camino Real	Via de la Valle to San Dieguito Road	SD	2-Ca	15,000	15,579	1.04	F
	San Dieguito Road to Derby Downs Road	SD	4-M	40,000	13,915	0.35	A
	Derby Downs Road to Half Mile Drive	SD	4-M	40,000	15,333	0.38	B
	Half Mile Drive to Quarter Mile Drive	SD	4-M	40,000	13,516	0.34	A
	Quarter Mile Drive to Del Mar Heights Road	SD	4-M	40,000	14,925	0.37	A
	Del Mar Heights Road to Townsgate Drive	SD	6-M	50,000	14,731	0.29	A
	Townsgate Drive to High Bluff Drive	SD	6-M	50,000	15,425	0.31	A
	High Bluff Drive to Valley Centre Drive	SD	6-M	50,000	19,364	0.39	A
Valley Centre Drive to Carmel Valley Road	SD	5-M	45,000	27,589	0.61	C	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	SD	4-M	40,000	15,932	0.40	B
	Townsgate Drive to Carmel Creek Road	SD	4-M	40,000	13,878	0.35	A
	Carmel Creek Road to Carmel Canyon Road	SD	4-M	40,000	13,137	0.33	A
	Carmel Canyon Road to SR-56 Westbound Ramps	SD	4-M	40,000	20,553	0.51	B
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	SD	4-M	40,000	12,224	0.31	A
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	SD	4-M	40,000	11,206	0.28	A
	Carmel Grove Road to SR-56 Westbound Ramps	SD	4-M	40,000	14,862	0.37	A
Valley Centre Drive	Carmel View Road to Carmel Creek Road	SD	4-C	30,000	10,875	0.36	B
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	SD	PA	60,000	43,375	0.72	C
High Bluff Drive*	Del Mar Heights Road to El Camino Real	SD	2-Ca	15,000	9,842	0.66	C
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	2-Cb	10,000	24,400	2.44	F

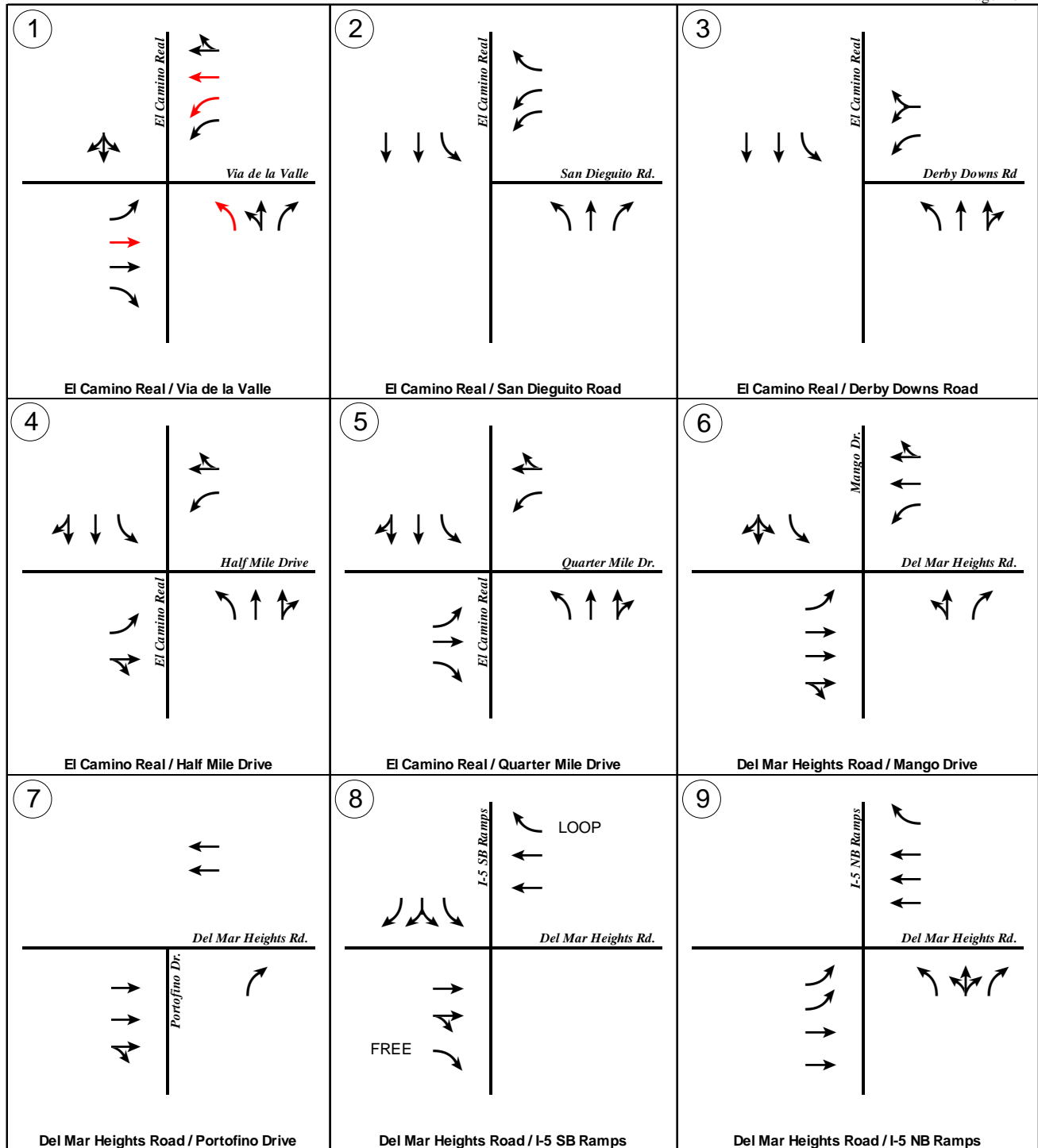
Legend:

SD= City of San Diego	6-M = 6 lane Major	* High Bluff Drive is three lanes on the northern portion and four lanes on the southern portion and has a raised .
Cap.= Capacity	4-M=4 lane Major	median. However, a conservative capacity of 15,000 ADT
Class.= Classification	2-Ca=2 lane collector	was applied.
LOS= Level of Service	2-Cb = 2 lane Collector with no fronting property	
V/C= Volume to Capacity Ratio		
	5-M = 5 lane Major with LOS E capacity of 45,000 ADT	

Notes:

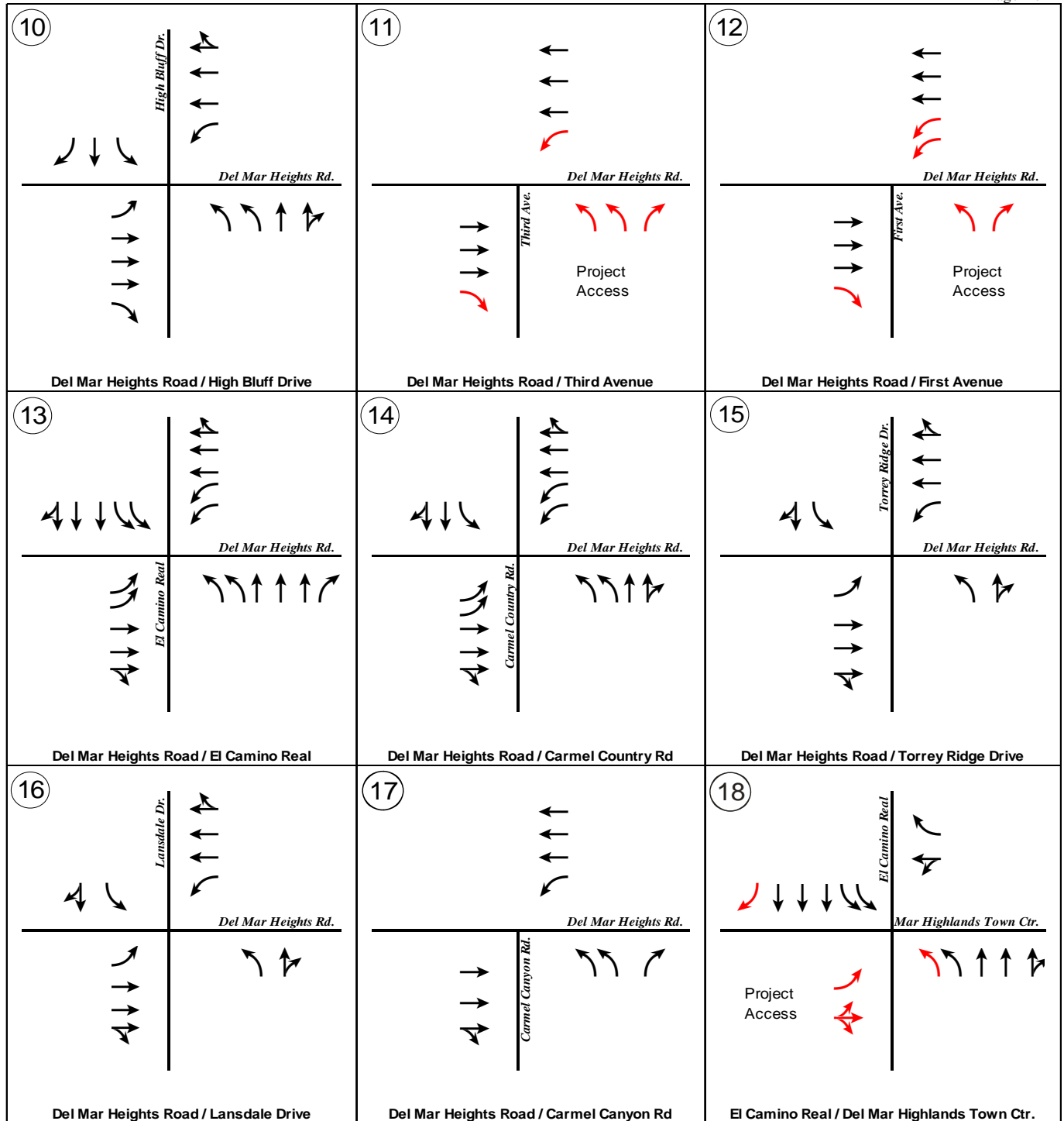
5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

Counts Conducted May 2009, Via de la Valle count data was obtained in April 2007, see Appendix C.



*The red arrows in Intersection #1 are planned lane configurations in the Year 2030 scenarios. See discussion in Section 5.4 of the report.

FIGURE 5-2
Existing Lane Configurations



*The red arrows indicate planned lane configurations when project access is constructed.

FIGURE 5-2
Existing Lane Configurations

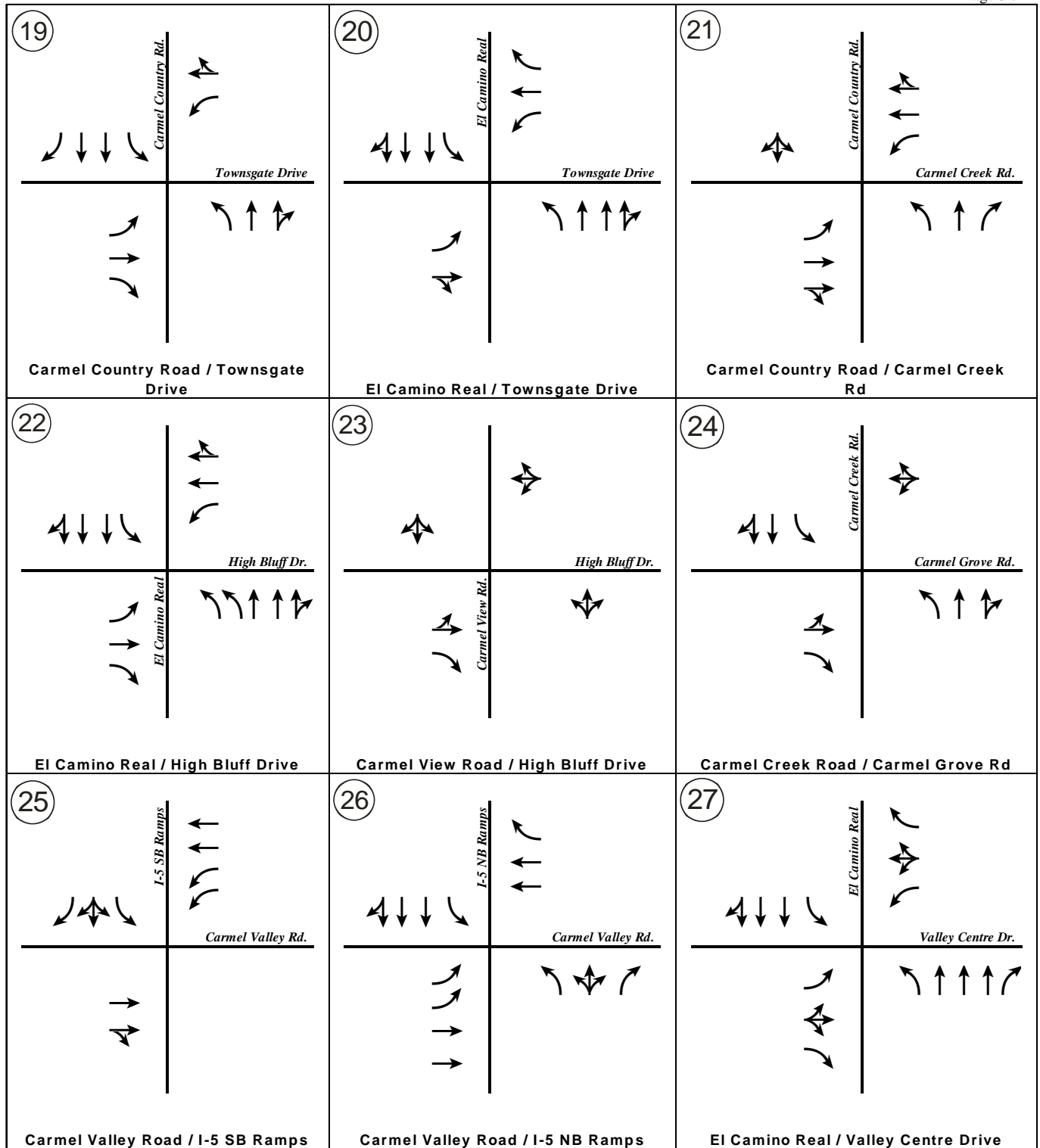


FIGURE 5-2
Existing Lane Configurations

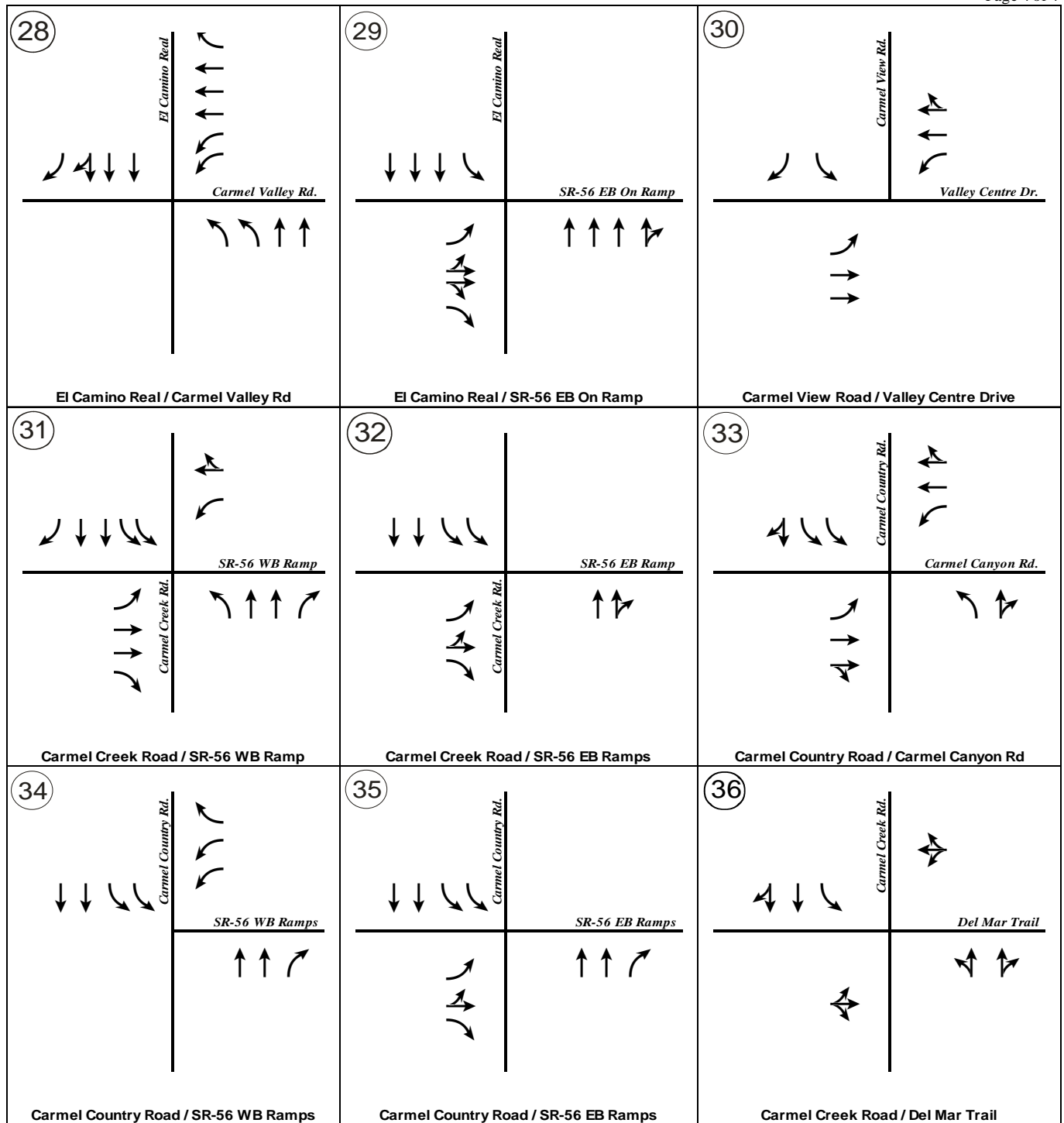


FIGURE 5-2
Existing Lane Configurations

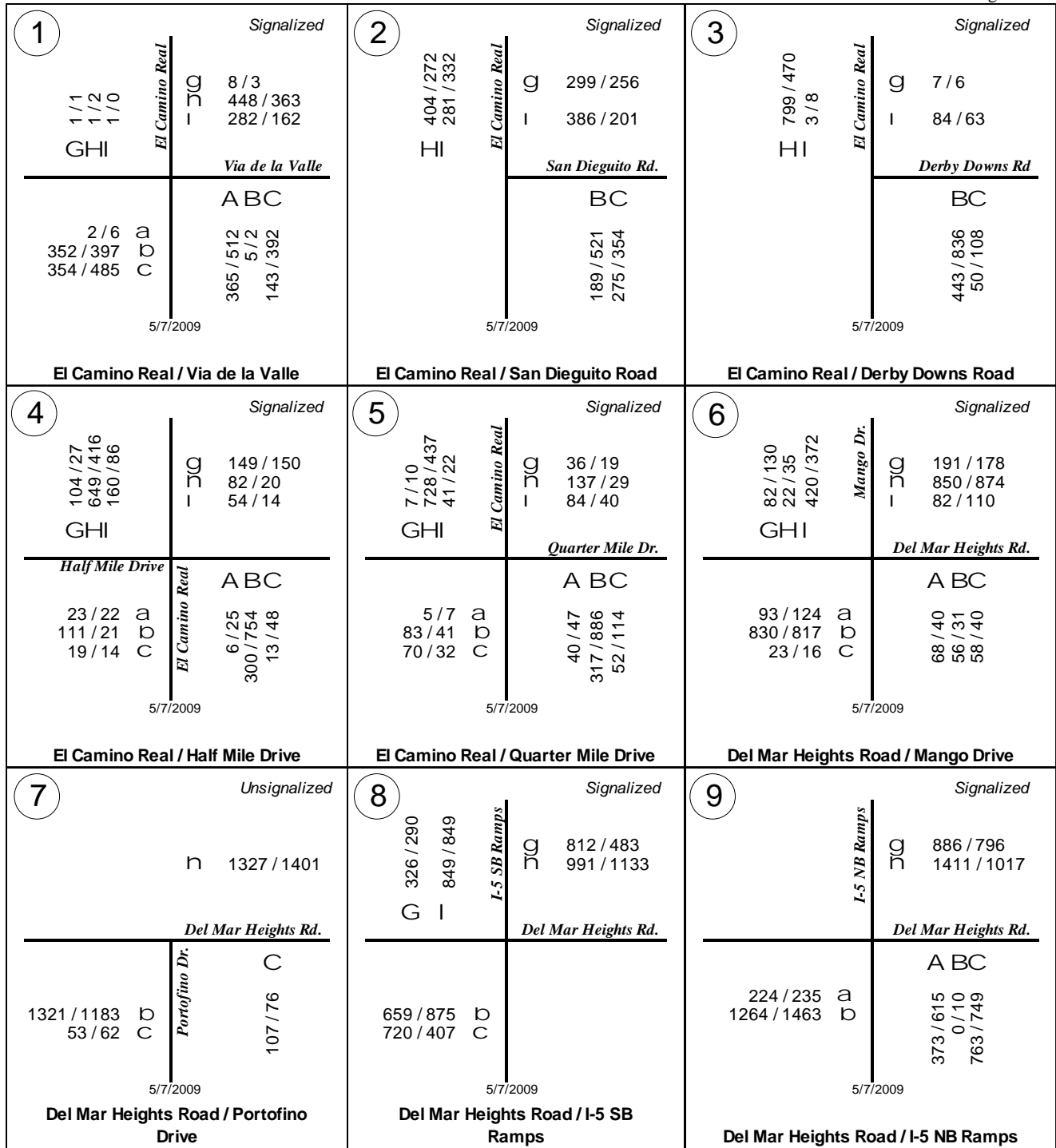


FIGURE 5-3

Existing AM / PM Peak Hour Traffic

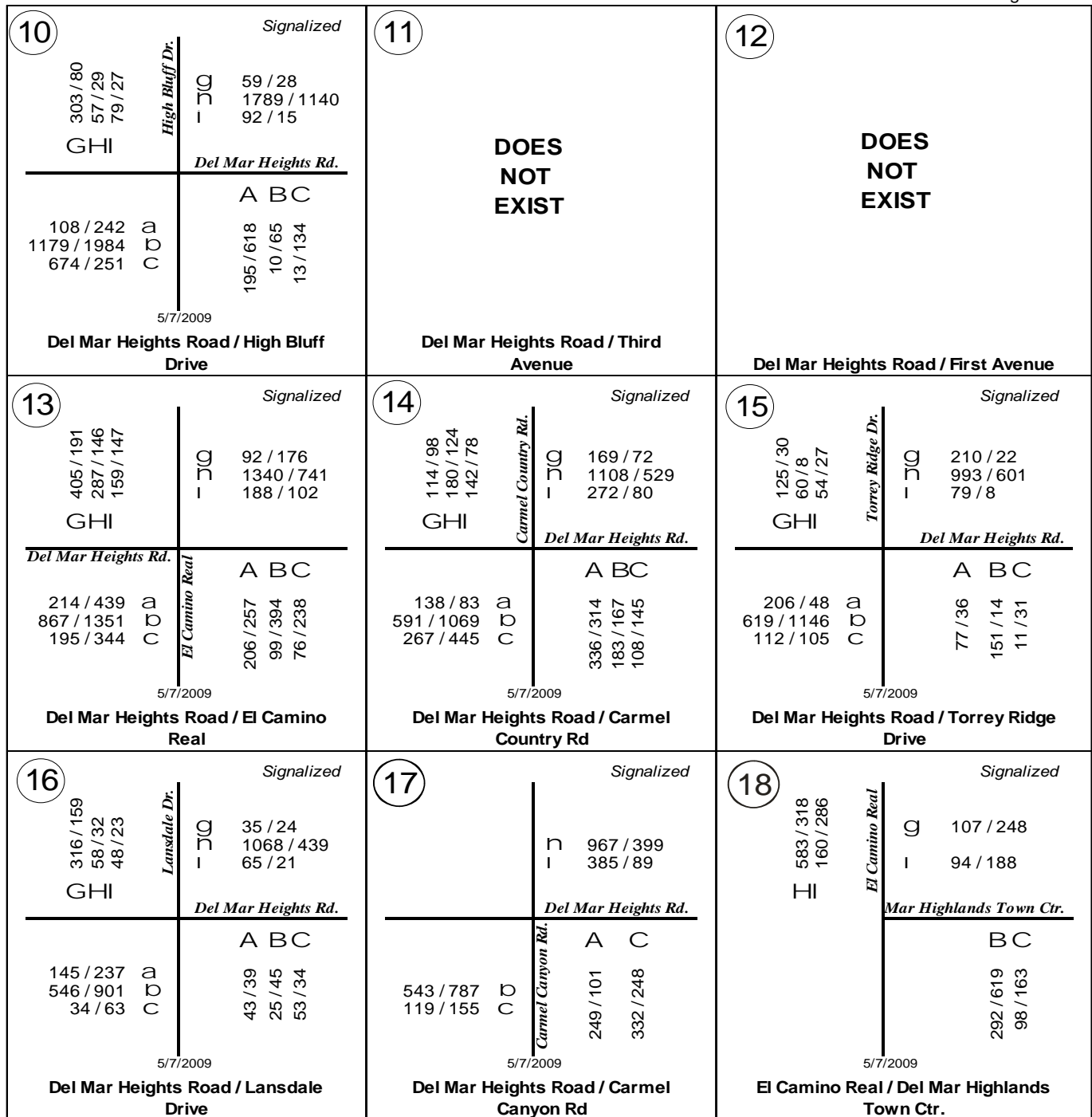


FIGURE 5-3
Existing AM / PM Peak Hour Traffic

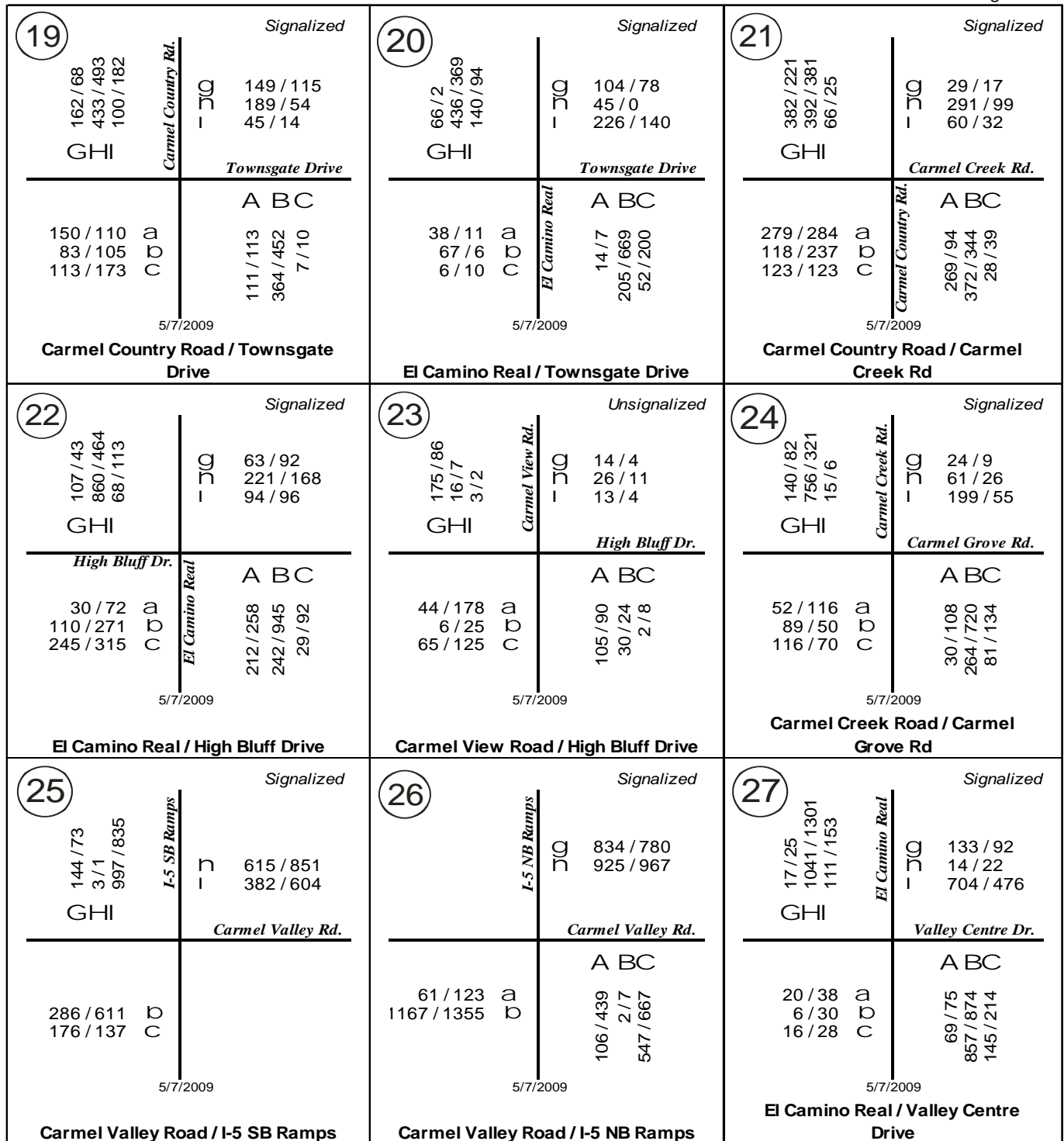


FIGURE 5-3
Existing AM / PM Peak Hour Traffic

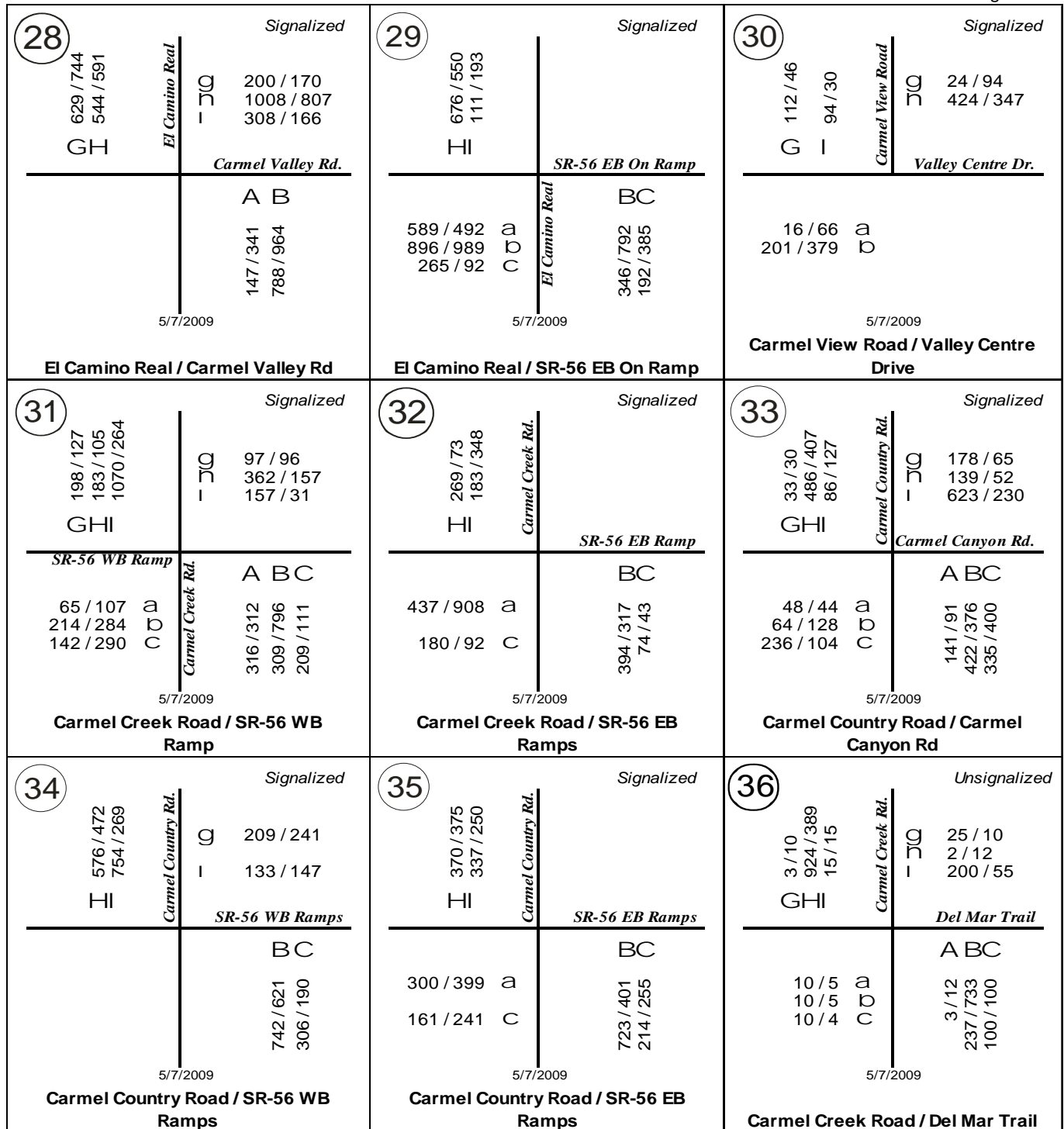


FIGURE 5-3

Existing AM / PM Peak Hour Traffic

TABLE 5-2

Existing Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Via de la Valle	Signalized	27.7	C	30.0	C
2	El Camino Real / San Dieguito Road	Signalized	16.6	B	23.8	C
3	El Camino Real / Derby Downs Road	Signalized	4.3	A	3.3	A
4	El Camino Real / Half Mile Drive	Signalized	19.6	B	16.8	B
5	El Camino Real / Quarter Mile Drive	Signalized	20.0	B	14.0	B
6	Del Mar Heights Road / Mango Drive	Signalized	31.7	C	29.7	C
7	Del Mar Heights Road / Portofino Drive	Minor Street	9.3	A	9.1	A
8	Del Mar Heights Road / I-5 SB Ramps	Signalized	22.5	C	20.3	C
9	Del Mar Heights Road / I-5 NB Ramps	Signalized	35.1	D	37.5	D
10	Del Mar Heights Road / High Bluff Drive	Signalized	26.1	C	28.9	C
11	Del Mar Heights Road / Third Avenue	Signalized	DNE	DNE	DNE	DNE
12	Del Mar Heights Road / First Avenue	Signalized	DNE	DNE	DNE	DNE
13	Del Mar Heights Road / El Camino Real	Signalized	27.2	C	26.9	C
14	Del Mar Heights Road / Carmel Country Rd	Signalized	22.1	C	24.3	C
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized	22.7	C	14.9	B
16	Del Mar Heights Road / Lansdale Drive	Signalized	20.4	C	19.8	B
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized	13.4	B	9.8	A
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized	7.2	A	12.4	B
19	Carmel Country Road / Townsgate Drive	Signalized	25.8	C	20.2	C
20	El Camino Real / Townsgate Drive	Signalized	18.2	B	13.0	B
21	Carmel Country Road / Carmel Creek Rd	Signalized	45.3	D	23.2	C
22	El Camino Real / High Bluff Drive	Signalized	25.2	C	27.9	C
23	Carmel View Road / High Bluff Drive	All-Way Stop	8.3	A	9.0	A
24	Carmel Creek Road / Carmel Grove Rd	Signalized	26.8	C	17.2	B
25	Carmel Valley Road / I-5 SB Ramps	Signalized	19.6	B	27.0	C
26	Carmel Valley Road / I-5 NB Ramps	Signalized	12.6	B	18.2	B
27	El Camino Real / Valley Centre Drive	Signalized	20.9	C	19.7	B
28	El Camino Real / Carmel Valley Rd	Signalized	14.0	B	16.8	B
29	El Camino Real / SR-56 EB On Ramp	Signalized	15.4	B	24.4	C
30	Carmel View Road / Valley Centre Drive	Signalized	6.7	A	7.8	A
31	Carmel Creek Road / SR-56 WB Ramp	Signalized	37.0	D	20.7	C
32	Carmel Creek Road / SR-56 EB Ramps	Signalized	11.6	B	19.5	B
33	Carmel Country Road / Carmel Canyon Rd	Signalized	31.9	C	23.2	C
34	Carmel Country Road / SR-56 WB Ramps	Signalized	15.7	B	10.9	B
35	Carmel Country Road / SR-56 EB Ramps	Signalized	13.4	B	11.5	B
36	Carmel Creek Road / Del Mar Trail	All-Way Stop	41.6	E	20.1	C

Notes:

DNE = Does not exist

Orange indicates unacceptable level of service.

LOS = Level of Service

5.6 FREEWAY SEGMENTS

Table 5-3 shows the resulting levels of service for the I-5 and SR-56 freeway segments analyzed. As shown in **Table 5-3**, all freeway segments operate at acceptable levels of service. The freeway segments analyzed in this report do not assume any future improvements such as the I-5 North Coast Corridor project in any of the scenarios evaluated.

5.7 RAMP METERS

Table 5-4 shows the resulting delays and queues for the I-5 / Del Mar Heights Rd northbound and southbound ramps. Also shown in **Table 5-4** is the observed meter rate in the field. As shown, the delays for both the northbound and southbound ramps are minimal.

Appendix C includes the field notes to determine the meter rates used in the analysis along with meter rate provided by Caltrans.

TABLE 5-3

Existing Freeway Segment Levels of Service

Segment	Lanes	Dir.	Cap.	ADT*	Peak Hour %	Dir. Split	Truck Factor	PHV	V/C	LOS
I-5										
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	NB	12,800	222,000	0.068	0.53	0.98	8,089	0.632	C
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	SB	12,800	222,000	0.067	0.55	0.98	8,350	0.652	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	NB	13,450	238,000	0.068	0.53	0.98	8,672	0.645	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	SB	13,450	238,000	0.067	0.55	0.98	8,951	0.666	C
Del Mar Heights Rd./ SR-56	6-GP+1-M	NB	15,780	241,000	0.068	0.53	0.98	8,781	0.556	B
Del Mar Heights Rd./ SR-56	6-GP+1-M	SB	15,780	241,000	0.067	0.55	0.98	9,064	0.574	B
SR-56/ Carmel Mountain Road	9-GP+1-M	NB	22,830	288,000	0.079	0.57	0.98	13,118	0.575	B
SR-56/ Carmel Mountain Road	8-GP+1-M	SB	20,480	288,000	0.080	0.55	0.98	12,883	0.629	C
Carmel Mountain Road/ I-805 Merge	10	NB	23,500	288,000	0.079	0.57	0.98	13,118	0.558	B
Carmel Mountain Road/ I-805 Merge	10	SB	23,500	288,000	0.080	0.55	0.98	12,883	0.548	B
SR-56										
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	EB	6,500	81,000	0.093	0.69	0.98	5,294	0.814	D
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	WB	6,500	81,000	0.094	0.70	0.98	5,429	0.835	D
Carmel Creek Rd. / Carmel Country	2-GP + 1-AX	EB	6,500	76,000	0.093	0.69	0.98	4,967	0.764	C
Carmel Creek Rd. / Carmel Country	2-GP + 1-AX	WB	6,500	76,000	0.094	0.70	0.98	5,093	0.784	C

Legend:

*Caltrans 2008 Count Data

Dir.= Direction

Cap. = Capacity

ADT= Average Daily Traffic

V/C= Volume to Capacity Ratio

LOS= Level of Service

PHV= Peak Hour Volume

#-GP= # of General Purpose Lanes

#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1680 vphpl taken from Caltrans Guide, December 2002)

HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 vphpl

Notes:

Capacity for LOS "E" freeway mainline is 2,350 vphpl and for auxiliary lane is 1800 vphpl.

Taken from Transition between LOS"C" and LOS "D" criteria for Basic Freeway Segments @ 65 mi/hr in "Caltrans Guide for the Preparation of Traffic Impact Studies", December 2002

AX = Auxiliary Lane with LOS "E" capacity of 1,800 vphpl

Peak Hour % and Dir. Split taken from Caltrans internet posted Traffic Volumes

TABLE 5-4
Existing Ramp Meter Analysis

Most Restrictive Meter Rate

Location		Demand (Veh/Hr)	Meter Rate (Veh/Hr)	Excess Demand (Veh/Hr)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	406	368	38	6.20	1,102
	PM	242	368	0	0	0
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	360	499	0	0	0
	PM	204	499	0	0	0
Del Mar Heights Rd. / I-5 NB on Ramp	AM	N/A	Meter is not turned on			
	PM	516	593	0	0	0

NOTE:

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

Delay = (Demand - Meter Rate) / Meter Rate * 60 minutes/hour

Queue = Excess Demand * 29 feet/vehicle

Observed Meter Delay & Queue

Location		Ramp Meter Lanes	Observed Delay (Min)	Observed Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	2 - SOV	1.0	261
	PM		1.0	145
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	1-SOV + 1-HOV	2.0	319
	PM		1.0	58
Del Mar Heights Rd. / I-5 NB on Ramp	AM	2 - SOV	Not Turned On	
	PM		1.5	203

NOTE:

Meter Rate = Observed in the field, see **Appendix C**

SOV = Single Occupancy Vehicle Lane

HOV = High Occupancy Vehicle Lane

6.0 EXISTING WITH PROJECT ANALYSIS

The purpose of this chapter is to evaluate the impacts of the Existing + Project analysis in Phase 1, Phase 1&2, and Project Build-out. This analysis evaluates the project's "impacts" in the existing with project conditions with all three phases of the project. In this chapter of the report, the following 3 scenarios were evaluated: Existing + Project (Phase 1), Existing + Project (Phase 1 & 2), and Existing + Project (Build-out). As previously mentioned, the existing baseline condition is defined as the EIR notice of preparation dated May 25, 2010. Project Phase 1 is planning to start construction in 2013. Phase 2 is planning to start in 2014, and phase 3 or build-out is planning to start in 2015. Please note that phases 2 and 3 may begin construction whether or not the previous phase is completed. This chapter does not analyze the cumulative effects of the project, which are addressed later.

6.1 EXISTING + PROJECT (PHASE 1)

This section discusses the results when adding project only traffic in Phase 1 to the existing traffic.

6.2.1 Street Segments

Street segments levels of service with project traffic were determined by combining the existing daily volumes with the project only daily volumes. **Table 6-1** shows street segment levels of service with the addition of the One Paseo project traffic in Phase 1. As shown in the table, three segments are shown to operate at unacceptable levels of service.

6.2.2 Intersections

Project traffic in Phase 1 for the AM and PM peaks was added to existing traffic to identify project impacts at study intersections. **Table 6-2** shows intersection levels of service with the addition of the One Paseo project traffic in Phase 1.

TABLE 6-1

Existing + Project (Phase 1) Street Segment Levels of Service

Road	Segment	Jurisd.	Class.	Cap.	Volume	V/C	LOS
Del Mar Heights Rd.	Mango Drive to Portofino Drive	SD	5-M	45,000	22,204	0.49	B
	Portofino Drive to I-5 Southbound Ramps	SD	5-PA	50,000	37,273	0.75	C
	I-5 Southbound Ramps and I-5 Northbound Ramps	SD	5-PA	50,000	42,166	0.84	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	55,481	0.92	E
	High Bluff Drive to Third Avenue	SD	PA	60,000	42,360	0.71	C
	Third Avenue to First Avenue	SD	PA	60,000	41,371	0.69	C
	First Avenue to El Camino Real	SD	PA	60,000	40,382	0.67	C
	El Camino Real to Carmel Country Road	SD	PA	60,000	35,344	0.59	C
	Carmel Country Road to Torrey Ridge Road	SD	PA	60,000	22,943	0.38	A
	Torrey Ridge Road to Lansdale Drive	SD	PA	60,000	19,961	0.33	A
Lansdale Drive to Carmel Canyon Road	SD	PA	60,000	15,682	0.26	A	
El Camino Real	Via de la Valle to San Dieguito Road	SD	2-Ca	15,000	15,876	1.06	F
	San Dieguito Road to Derby Downs Road	SD	4-M	40,000	14,311	0.36	A
	Derby Downs Road to Half Mile Drive	SD	4-M	40,000	15,729	0.39	B
	Half Mile Drive to Quarter Mile Drive	SD	4-M	40,000	14,010	0.35	A
	Quarter Mile Drive to Del Mar Heights Road	SD	4-M	40,000	15,518	0.39	B
	Del Mar Heights Road to Townsgate Drive	SD	6-M	50,000	16,214	0.32	A
	Townsgate Drive to High Bluff Drive	SD	6-M	50,000	16,710	0.33	A
	High Bluff Drive to Valley Centre Drive	SD	6-M	50,000	20,254	0.41	B
Valley Centre Drive to Carmel Valley Road	SD	5-M	45,000	28,182	0.63	C	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	SD	4-M	40,000	16,921	0.42	B
	Townsgate Drive to Carmel Creek Road	SD	4-M	40,000	14,669	0.37	A
	Carmel Creek Road to Carmel Canyon Road	SD	4-M	40,000	13,631	0.34	A
	Carmel Canyon Road to SR-56 Westbound Ramps	SD	4-M	40,000	20,949	0.52	B
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	SD	4-M	40,000	12,422	0.31	A
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	SD	4-M	40,000	11,503	0.29	A
	Carmel Grove Road to SR-56 Westbound Ramps	SD	4-M	40,000	15,159	0.38	B
Valley Centre Drive	Carmel View Road to Carmel Creek Road	SD	4-C	30,000	10,974	0.37	B
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	SD	PA	60,000	43,573	0.73	C
High Bluff Drive	Del Mar Heights Road to El Camino Real	SD	2-Ca	15,000	10,139	0.68	D
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	2-Cb	10,000	24,598	2.46	F

Legend:

- SD= City of San Diego
- Cap.= Capacity
- Class.= Classification
- LOS= Level of Service
- V/C= Volume to Capacity Ratio
- PA = 6 lane Prime Arterial
- 6-M = 6 lane Major
- 4-M=4 lane Major
- 2-Ca=2 lane collector
- 2-Cb=2 lane collector with no fronting property
- 5-M = 5 lane Major with LOS E capacity of 45,000 ADT
- 5-PA = 5 lane Prime Arterial with LOS E capacity of 50,000 ADT

TABLE 6-2

Existing + Project (Phase 1) Intersections Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Via de la Valle	Signalized	28.2	C	30.9	C
2	El Camino Real / San Dieguito Road	Signalized	16.8	B	25	C
3	El Camino Real / Derby Downs Road	Signalized	4.3	A	4.5	A
4	El Camino Real / Half Mile Drive	Signalized	20.5	C	17.5	B
5	El Camino Real / Quarter Mile Drive	Signalized	20.1	C	15	B
6	Del Mar Heights Road / Mango Drive	Signalized	32.3	C	31.6	C
7	Del Mar Heights Road / Portofino Drive	Minor Street	9.5	A	9.2	A
8	Del Mar Heights Road / I-5 SB Ramps	Signalized	24.2	C	22.2	C
9	Del Mar Heights Road / I-5 NB Ramps	Signalized	36.2	D	38	D
10	Del Mar Heights Road / High Bluff Drive	Signalized	26.6	C	34.2	C
11	Del Mar Heights Road / Third Avenue	Signalized	5.4	A	10.5	B
12	Del Mar Heights Road / First Avenue	Signalized	4	A	11.3	B
13	Del Mar Heights Road / El Camino Real	Signalized	30.6	C	30.3	C
14	Del Mar Heights Road / Carmel Country Rd	Signalized	24.9	C	24.9	C
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized	24	C	16.6	B
16	Del Mar Heights Road / Lansdale Drive	Signalized	21.7	C	19.9	B
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized	13.6	B	9.8	A
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized	15.9	B	22.7	C
19	Carmel Country Road / Townsgate Drive	Signalized	26.4	C	21.7	C
20	El Camino Real / Townsgate Drive	Signalized	18.5	B	13.8	B
21	Carmel Country Road / Carmel Creek Rd	Signalized	46.7	D	25.3	C
22	El Camino Real / High Bluff Drive	Signalized	25.5	C	28.8	C
23	Carmel View Road / High Bluff Drive	All Way Stop	8.6	A	9.3	A
24	Carmel Creek Road / Carmel Grove Rd	Signalized	26.8	C	17.2	B
25	Carmel Valley Road / I-5 SB Ramps	Signalized	20	B	27.7	C
26	Carmel Valley Road / I-5 NB Ramps	Signalized	12.6	B	18.3	B
27	El Camino Real / Valley Centre Drive	Signalized	20.9	C	20.1	C
28	El Camino Real / Carmel Valley Rd	Signalized	14.9	B	20.5	C
29	El Camino Real / SR-56 EB On Ramp	Signalized	15.6	B	25.3	C
30	Carmel View Road / Valley Centre Drive	Signalized	6.7	A	7.8	A
31	Carmel Creek Road / SR-56 WB Ramp	Signalized	38.8	D	20.8	C
32	Carmel Creek Road / SR-56 EB Ramps	Signalized	11.7	B	25	C
33	Carmel Country Road / Carmel Canyon Rd	Signalized	32	C	25	C
34	Carmel Country Road / SR-56 WB Ramps	Signalized	15.8	B	11.3	B
35	Carmel Country Road / SR-56 EB Ramps	Signalized	13.4	B	11.8	B
36	Carmel Creek Road / Del Mar Trail	All Way Stop	43.6	E	20.9	C

Notes:

LOS = Level of Service

As shown in the table, only Carmel Creek Road at Del Mar Trail is projected to operate at unacceptable level of service.

Appendix E includes the Synchro worksheets & AM/PM peak hour volumes for the Existing with Project (Phase 1) scenario.

6.2.3 Freeway Segments

Project traffic in Phase 1 on freeway segments of I-5 and SR-56 was added to existing traffic. **Table 6-3** shows the resulting levels of service with the project for the freeway segments analyzed. As shown in the table, all freeway segments operate at acceptable levels of service.

6.2.4 Ramp Meters

Ramp meters were analyzed at the I-5 / Del Mar Heights Road interchange. **Table 6-4** shows the ramp meter comparison with the project.

TABLE 6-3

Existing + Project (Phase 1) Freeway Segment Levels of Service

Segment	Lanes	Dir.	Cap.	ADT	Peak Hour %	Dir. Split	Truck Factor	PHV	V/C	LOS
I-5										
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	NB	12,800	222,692	0.068	0.53	0.98	8,114	0.634	C
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	SB	12,800	222,692	0.067	0.55	0.98	8,376	0.654	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	NB	13,450	238,890	0.068	0.53	0.98	8,704	0.647	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	SB	13,450	238,890	0.067	0.55	0.98	8,985	0.668	C
Del Mar Heights Rd./ SR-56	6-GP+1-M	NB	15,780	242,780	0.068	0.53	0.98	8,846	0.561	B
Del Mar Heights Rd./ SR-56	6-GP+1-M	SB	15,780	242,780	0.067	0.55	0.98	9,131	0.579	B
SR-56/ Carmel Mountain Road	9-GP+1-M	NB	22,830	288,989	0.079	0.57	0.98	13,163	0.577	B
SR-56/ Carmel Mountain Road	8-GP+1-M	SB	20,480	288,989	0.080	0.55	0.98	12,927	0.631	C
Carmel Mountain Road/ I-805 Merge	10	NB	23,500	288,791	0.079	0.57	0.98	13,154	0.560	B
Carmel Mountain Road/ I-805 Merge	10	SB	23,500	288,791	0.080	0.55	0.98	12,918	0.550	B
SR-56										
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	EB	6,500	81,198	0.093	0.69	0.98	5,307	0.816	D
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	WB	6,500	81,198	0.094	0.70	0.98	5,442	0.837	D
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	EB	6,500	76,198	0.093	0.69	0.98	4,980	0.766	C
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	WB	6,500	76,198	0.094	0.70	0.98	5,107	0.786	C

Legend:

Dir.= Direction
 Cap. = Capacity
 ADT= Average Daily Traffic
 V/C= Volume to Capacity Ratio
 LOS= Level of Service
 PHV= Peak Hour Volume
 #-GP= # of General Purpose Lanes
 #-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1680 veh/hr/ln taken from Caltrans Guide, December 2002)
 #-HOV = # of High Occupancy Vehicle lane with LOS E capacity of 1,600 veh/hr/ln

Note:

Capacity for LOS "E" roadway is 2,350 veh/hr/ln.
 Taken from Transition between LOS "C" and LOS "D" criteria for Basic Freeway Segments @ 65 mi/hr in "Caltrans Guide for the Preparation of Traffic Impact Studies", December 2002
 AX = Auxiliary lane with LOS E capacity of 1,800 veh/hr/ln
 Peak Hour % and Dir. Split taken from Caltrans internet posted Traffic Volumes

TABLE 6-4

Existing + Project (Phase 1) Ramp Meter Analysis

Most Restrictive Meter Rate

Location		Demand (Veh/Hr)	Meter Rate (Veh/Hr)	Excess Demand (Veh/Hr)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	418	368	49.5	8.07	1,436
	PM	321	368	0	0	0
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	360	499	0	0	0
	PM	204	499	0	0	0
Del Mar Heights Rd. / I-5 NB on Ramp	AM	N/A	Meter is not turned on			
	PM	555	593	0	0	0

NOTE:

Meter rate is based on the most restrictive meter rate provided by Caltrans

Delay = (Demand - Meter Rate) / Meter Rate * 60 minutes/hour

Queue = Excess Demand * 29 feet/vehicle

6.3 EXISTING + PROJECT (PHASE 1 & 2)

This section discusses the results when adding project only traffic in Phase 1 & 2 to the existing traffic. Phase 2 is planning to start construction in 2014 whether or not phase 1 is completed.

6.3.1 Street Segments

Street segment levels of service with project traffic were determined by combining the existing daily volumes with the project only daily volumes in phase 1 & 2. **Table 6-5** shows street segment levels of service with the addition of the One Paseo project traffic in Phase 1 & 2. As shown in the table, three segments are projected to operate at unacceptable levels of service.

6.3.2 Intersections

Project traffic in Phase 1 & 2 for the AM and PM peaks was added to existing traffic at study intersections. **Table 6-6** shows intersection AM & PM levels of service with the addition of the One Paseo project traffic in Phase 1 & 2. As shown in the table, there is only one (1) operating at an unacceptable level of service at Carmel Creek Road / Del Mar Trail.

Appendix E includes the Synchro worksheets & AM/PM peak hour volumes for the Existing with Project (Phase 1 & 2) condition.

TABLE 6-5

Existing + Project (Phase 1 & 2) Street Segment Levels of Service

Road	Segment	Jurisd.	Class.	Cap.	Volume	V/C	LOS
Del Mar Heights Rd.	Mango Drive to Portofino Drive	SD	5-M	45,000	22,917	0.51	B
	Portofino Drive to I-5 Southbound Ramps	SD	5-PA	50,000	38,223	0.76	C
	I-5 Southbound Ramps and I-5 Northbound Ramps	SD	5-PA	50,000	43,831	0.88	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	58,572	0.98	E
	High Bluff Drive to Third Avenue	SD	PA	60,000	45,925	0.77	C
	Third Avenue to First Avenue	SD	PA	60,000	45,213	0.75	C
	First Avenue to El Camino Real	SD	PA	60,000	45,213	0.75	C
	El Camino Real to Carmel Country Road	SD	PA	60,000	37,483	0.62	C
	Carmel Country Road to Torrey Ridge Road	SD	PA	60,000	23,974	0.40	A
	Torrey Ridge Road to Lansdale Drive	SD	PA	60,000	20,674	0.34	A
Lansdale Drive to Carmel Canyon Road	SD	PA	60,000	16,079	0.27	A	
El Camino Real	Via de la Valle to San Dieguito Road	SD	2-Ca	15,000	16,113	1.07	F
	San Dieguito Road to Derby Downs Road	SD	4-M	40,000	14,627	0.37	A
	Derby Downs Road to Half Mile Drive	SD	4-M	40,000	16,045	0.40	B
	Half Mile Drive to Quarter Mile Drive	SD	4-M	40,000	14,407	0.36	A
	Quarter Mile Drive to Del Mar Heights Road	SD	4-M	40,000	15,994	0.40	B
	Del Mar Heights Road to Townsgate Drive	SD	6-M	50,000	17,403	0.35	A
	Townsgate Drive to High Bluff Drive	SD	6-M	50,000	17,741	0.35	A
	High Bluff Drive to Valley Centre Drive	SD	6-M	50,000	20,967	0.42	B
Valley Centre Drive to Carmel Valley Road	SD	5-M	45,000	28,658	0.64	C	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	SD	4-M	40,000	17,713	0.44	B
	Townsgate Drive to Carmel Creek Road	SD	4-M	40,000	15,303	0.38	B
	Carmel Creek Road to Carmel Canyon Road	SD	4-M	40,000	14,028	0.35	A
	Carmel Canyon Road to SR-56 Westbound Ramps	SD	4-M	40,000	21,265	0.53	C
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	SD	4-M	40,000	12,580	0.31	A
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	SD	4-M	40,000	11,740	0.29	A
	Carmel Grove Road to SR-56 Westbound Ramps	SD	4-M	40,000	15,396	0.38	B
Valley Centre Drive	Carmel View Road to Carmel Creek Road	SD	4-C	30,000	11,053	0.37	B
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	SD	PA	60,000	43,731	0.73	C
High Bluff Drive	Del Mar Heights Road to El Camino Real	SD	2-Ca	15,000	10,376	0.69	D
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	2-Cb	10,000	24,756	2.48	F

Legend:

- SD= City of San Diego
- Cap.= Capacity
- Class.= Classification
- LOS= Level of Service
- V/C= Volume to Capacity Ratio
- PA = 6 lane Prime Arterial
- 6-M = 6 lane Major
- 4-M=4 lane Major
- 2-Ca=2 lane collector
- 2-Cb=2 lane collector with no fronting property
- 5-M = 5 lane Major with LOS E capacity of 45,000 ADT
- 5-PA = 5 lane Prime Arterial with LOS E capacity of 50,000 ADT

TABLE 6-6

Existing + Project (Phase 1 & 2) Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Via de la Valle	Signalized	28.4	C	32.6	C
2	El Camino Real / San Dieguito Road	Signalized	16.8	B	25.8	C
3	El Camino Real / Derby Downs Road	Signalized	4.3	A	4.6	A
4	El Camino Real / Half Mile Drive	Signalized	20.6	C	17.8	B
5	El Camino Real / Quarter Mile Drive	Signalized	20.1	C	15.1	B
6	Del Mar Heights Road / Mango Drive	Signalized	32.5	C	32.3	C
7	Del Mar Heights Road / Portofino Drive	Minor Street	9.5	A	9.3	A
8	Del Mar Heights Road / I-5 SB Ramps	Signalized	24.8	C	24	C
9	Del Mar Heights Road / I-5 NB Ramps	Signalized	37.7	D	41.2	D
10	Del Mar Heights Road / High Bluff Drive	Signalized	27.4	C	40.4	D
11	Del Mar Heights Road / Third Avenue	Signalized	6.8	A	14.1	B
12	Del Mar Heights Road / First Avenue	Signalized	6	A	15.8	B
13	Del Mar Heights Road / El Camino Real	Signalized	32.2	C	37.3	D
14	Del Mar Heights Road / Carmel Country Rd	Signalized	25.5	C	28.6	C
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized	25.1	C	16.2	B
16	Del Mar Heights Road / Lansdale Drive	Signalized	22.1	C	23.8	C
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized	13.6	B	9.9	A
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized	17.9	B	26.1	C
19	Carmel Country Road / Townsgate Drive	Signalized	26.6	C	22.1	C
20	El Camino Real / Townsgate Drive	Signalized	18.6	B	13.7	B
21	Carmel Country Road / Carmel Creek Rd	Signalized	47.7	D	25.7	C
22	El Camino Real / High Bluff Drive	Signalized	25.8	C	30.1	C
23	Carmel View Road / High Bluff Drive	All Way Stop	8.6	A	9.5	A
24	Carmel Creek Road / Carmel Grove Rd	Signalized	26.8	C	17.3	B
25	Carmel Valley Road / I-5 SB Ramps	Signalized	20.1	C	27.9	C
26	Carmel Valley Road / I-5 NB Ramps	Signalized	12.6	B	18.4	B
27	El Camino Real / Valley Centre Drive	Signalized	21	C	20.2	C
28	El Camino Real / Carmel Valley Rd	Signalized	14.9	B	20.6	C
29	El Camino Real / SR-56 EB On Ramp	Signalized	15.7	B	26	C
30	Carmel View Road / Valley Centre Drive	Signalized	6.7	A	7.8	A
31	Carmel Creek Road / SR-56 WB Ramp	Signalized	39	D	21.5	C
32	Carmel Creek Road / SR-56 EB Ramps	Signalized	11.8	B	25.6	C
33	Carmel Country Road / Carmel Canyon Rd	Signalized	32.2	C	25.2	C
34	Carmel Country Road / SR-56 WB Ramps	Signalized	15.8	B	11.3	B
35	Carmel Country Road / SR-56 EB Ramps	Signalized	13.4	B	11.9	B
36	Carmel Creek Road / Del Mar Trail	All Way Stop	44.5	E	21.9	C

Notes:

LOS = Level of Service

6.3.3 Freeway Segments

Project traffic in Phase 1 & 2 on freeway segments of I-5 and SR-56 was added to existing traffic. **Table 6-7** shows the resulting levels of service with the project in Phase 1 & 2 for the freeway segments analyzed. As shown in the table, all freeway segments operate at acceptable levels of service.

6.3.4 Ramp Meters

Ramp meters were analyzed at the I-5 / Del Mar Heights Road interchange. **Table 6-8** shows the ramp meter analysis with the project for Phase 1 & 2.

TABLE 6-7

Existing + Project (Phase 1 & 2) Freeway Segment Levels of Service

Segment	Lanes	Dir.	Cap.	ADT	Peak Hour %	Dir. Split	Truck Factor	PHV	V/C	LOS
I-5										
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	NB	12,800	223,247	0.068	0.53	0.98	8,134	0.635	C
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	SB	12,800	223,247	0.067	0.55	0.98	8,396	0.656	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	NB	13,450	239,603	0.068	0.53	0.98	8,730	0.649	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	SB	13,450	239,603	0.067	0.55	0.98	9,012	0.670	C
Del Mar Heights Rd./ SR-56	6-GP+1-M	NB	15,780	244,206	0.068	0.53	0.98	8,898	0.564	B
Del Mar Heights Rd./ SR-56	6-GP+1-M	SB	15,780	244,206	0.067	0.55	0.98	9,185	0.582	B
SR-56/ Carmel Mountain Road	9-GP+1-M	NB	22,830	289,781	0.079	0.57	0.98	13,199	0.578	B
SR-56/ Carmel Mountain Road	8-GP+1-M	SB	20,480	289,781	0.080	0.55	0.98	12,962	0.633	C
Carmel Mountain Road/ I-805 Merge	10	NB	23,500	289,425	0.079	0.57	0.98	13,183	0.561	B
Carmel Mountain Road/ I-805 Merge	10	SB	23,500	289,425	0.080	0.55	0.98	12,946	0.551	B
SR-56										
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	EB	6,500	81,356	0.093	0.69	0.98	5,317	0.818	D
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	WB	6,500	81,356	0.094	0.70	0.98	5,452	0.839	D
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	EB	6,500	76,356	0.093	0.69	0.98	4,990	0.768	C
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	WB	6,500	76,356	0.094	0.70	0.98	5,117	0.787	C

Legend:

Dir.= Direction
 Cap. = Capacity
 ADT= Average Daily Traffic
 V/C= Volume to Capacity Ratio
 LOS= Level of Service
 PHV= Peak Hour Volume
 #-GP= # of General Purpose Lanes
 #-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1680 veh/hr/ln taken from Caltrans Guide, December 2002)
 #-HOV = # of High Occupancy Vehicle lane with LOS E capacity of 1,600 veh/hr/ln

Note:

Capacity for LOS "E" roadway is 2,350 veh/hr/ln.
 Taken from Transition between LOS "C" and LOS "D" criteria for Basic Freeway Segments @ 65 mi/hr in "Caltrans Guide for the Preparation of Traffic Impact Studies", December 2002
 AX = Auxiliary lane with LOS E capacity of 1,800 veh/hr/ln
 Peak Hour % and Dir. Split taken from Caltrans internet posted Traffic Volumes

TABLE 6-8

Existing + Project (Phase 1 & 2) Ramp Meter Analysis

Most Restrictive Meter Rate

Location		Demand (Veh/Hr)	Meter Rate (Veh/Hr)	Excess Demand (Veh/Hr)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	434	368	66	10.76	1,914
	PM	364	368	0	0.00	0
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	360	499	0	0	0
	PM	204	499	0	0	0
Del Mar Heights Rd. / I-5 NB on Ramp	AM	N/A	Meter is not turned on			
	PM	573	593	0	0	0

NOTE:

Meter rate is based on the most restrictive meter rate provided by Caltrans

Delay = (Demand - Meter Rate) / Meter Rate * 60 minutes/hour

Queue = Excess Demand * 29 feet/vehicle

6.4 EXISTING + PROJECT (BUILD-OUT)

This section discusses the results when adding the build-out of project traffic to existing traffic. The final phase (phase 3) of the project is planned to begin in 2015. Construction of phases 1 and 2 may still be in progress when phase 3 begins.

6.4.1 Street Segments

Street segments levels of service with project traffic were determined by combining the existing daily volumes with the project daily volumes. **Table 6-9** shows street segment levels of service with the addition of the One Paseo project traffic at build-out. As shown in the table, four segments are projected to operate at unacceptable levels of service.

6.4.2 Intersections

Project traffic at Build-out for the AM and PM peaks was added to existing traffic at study intersections. **Table 6-10** shows intersection levels of service with the addition of the One Paseo project traffic at project Build-out. As shown in the table, only one intersection operates at an unacceptable level of service at Carmel Creek Road / Del Mar Trail.

Appendix E includes Synchro worksheets & AM/PM peak hour volumes for the Existing with Project (Build-out) scenario.

TABLE 6-9

Existing + Project (Build-out) Street Segment Levels of Service

Road	Segment	Jurisd.	Class.	Cap.	Volume	V/C	LOS
Del Mar Heights Rd.	Mango Drive to Portofino Drive	SD	5-M	45,000	23,740	0.53	B
	Portofino Drive to I-5 Southbound Ramps	SD	5-PA	50,000	39,321	0.79	C
	I-5 Southbound Ramps and I-5 Northbound Ramps	SD	5-PA	50,000	45,752	0.92	E
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	62,140	1.04	F
	High Bluff Drive to Third Avenue	SD	PA	60,000	50,042	0.83	D
	Third Avenue to First Avenue	SD	PA	60,000	48,964	0.82	C
	First Avenue to El Camino Real	SD	PA	60,000	48,964	0.82	C
	El Camino Real to Carmel Country Road	SD	PA	60,000	39,953	0.67	C
	Carmel Country Road to Torrey Ridge Road	SD	PA	60,000	25,163	0.42	B
	Torrey Ridge Road to Lansdale Drive	SD	PA	60,000	21,497	0.36	A
Lansdale Drive to Carmel Canyon Road	SD	PA	60,000	16,536	0.28	A	
El Camino Real	Via de la Valle to San Dieguito Road	SD	2-Ca	15,000	16,388	1.09	F
	San Dieguito Road to Derby Downs Road	SD	4-M	40,000	14,993	0.37	A
	Derby Downs Road to Half Mile Drive	SD	4-M	40,000	16,411	0.41	B
	Half Mile Drive to Quarter Mile Drive	SD	4-M	40,000	14,864	0.37	A
	Quarter Mile Drive to Del Mar Heights Road	SD	4-M	40,000	16,543	0.41	B
	Del Mar Heights Road to Townsgate Drive	SD	6-M	50,000	20,123	0.40	B
	Townsgate Drive to High Bluff Drive	SD	6-M	50,000	18,930	0.38	A
	High Bluff Drive to Valley Centre Drive	SD	6-M	50,000	21,790	0.44	B
Valley Centre Drive to Carmel Valley Road	SD	5-M	45,000	29,207	0.65	C	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	SD	4-M	40,000	18,628	0.47	B
	Townsgate Drive to Carmel Creek Road	SD	4-M	40,000	16,035	0.40	B
	Carmel Creek Road to Carmel Canyon Road	SD	4-M	40,000	14,485	0.36	A
	Carmel Canyon Road to SR-56 Westbound Ramps	SD	4-M	40,000	21,631	0.54	C
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	SD	4-M	40,000	12,763	0.32	A
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	SD	4-M	40,000	12,015	0.30	A
	Carmel Grove Road to SR-56 Westbound Ramps	SD	4-M	40,000	15,671	0.39	B
Valley Centre Drive	Carmel View Road to Carmel Creek Road	SD	4-C	30,000	11,145	0.37	B
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	SD	PA	60,000	43,914	0.73	C
High Bluff Drive	Del Mar Heights Road to El Camino Real	SD	2-Ca	15,000	10,651	0.71	D
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	2-Cb	10,000	24,939	2.49	F

Legend:

SD= City of San Diego
 Cap.= Capacity
 Class.= Classification
 LOS= Level of Service
 V/C= Volume to Capacity Ratio

PA = 6 lane Prime Arterial
 6-M = 6 lane Major
 4-M=4 lane Major
 2-Ca=2 lane collector
 2-Cb=2 lane collector with no fronting property

TABLE 6-10

Existing + Project (Build-out) Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Via de la Valle	Signalized	28.7	C	33.5	C
2	El Camino Real / San Dieguito Road	Signalized	17	B	26.4	C
3	El Camino Real / Derby Downs Road	Signalized	4.3	A	5	A
4	El Camino Real / Half Mile Drive	Signalized	20.9	C	18.9	B
5	El Camino Real / Quarter Mile Drive	Signalized	20.4	C	14.4	B
6	Del Mar Heights Road / Mango Drive	Signalized	32.9	C	33.4	C
7	Del Mar Heights Road / Portofino Drive	Minor Street	9.6	A	9.4	A
8	Del Mar Heights Road / I-5 SB Ramps	Signalized	25.1	C	25.9	C
9	Del Mar Heights Road / I-5 NB Ramps	Signalized	40.4	D	51.3	D
10	Del Mar Heights Road / High Bluff Drive	Signalized	29.1	C	47.2	D
11	Del Mar Heights Road / Third Avenue	Signalized	8.7	A	21.2	C
12	Del Mar Heights Road / First Avenue	Signalized	7.7	A	22	C
13	Del Mar Heights Road / El Camino Real	Signalized	33.6	C	45.5	D
14	Del Mar Heights Road / Carmel Country Rd	Signalized	26.5	C	36.5	D
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized	25.3	C	15.4	B
16	Del Mar Heights Road / Lansdale Drive	Signalized	22.9	C	27.6	C
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized	13.6	B	10	A
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized	19.1	B	28.7	C
19	Carmel Country Road / Townsgate Drive	Signalized	26.9	C	22.7	C
20	El Camino Real / Townsgate Drive	Signalized	18.8	B	14.1	B
21	Carmel Country Road / Carmel Creek Rd	Signalized	49.2	D	27.7	C
22	El Camino Real / High Bluff Drive	Signalized	25.8	C	31.8	C
23	Carmel View Road / High Bluff Drive	All Way Stop	8.7	A	9.8	A
24	Carmel Creek Road / Carmel Grove Rd	Signalized	26.8	C	17.4	B
25	Carmel Valley Road / I-5 SB Ramps	Signalized	20.1	C	27.6	C
26	Carmel Valley Road / I-5 NB Ramps	Signalized	12.6	B	18.2	B
27	El Camino Real / Valley Centre Drive	Signalized	21.1	C	20.2	C
28	El Camino Real / Carmel Valley Rd	Signalized	14.9	B	20.9	C
29	El Camino Real / SR-56 EB On Ramp	Signalized	16.1	B	26.5	C
30	Carmel View Road / Valley Centre Drive	Signalized	6.7	A	7.8	A
31	Carmel Creek Road / SR-56 WB Ramp	Signalized	39.4	D	21.6	C
32	Carmel Creek Road / SR-56 EB Ramps	Signalized	11.7	B	26	C
33	Carmel Country Road / Carmel Canyon Rd	Signalized	32.3	C	25.5	C
34	Carmel Country Road / SR-56 WB Ramps	Signalized	15.8	B	11.4	B
35	Carmel Country Road / SR-56 EB Ramps	Signalized	13.4	B	12.1	B
36	Carmel Creek Road / Del Mar Trail	All Way Stop	46.2	E	22.9	C

Notes:

LOS = Level of Service

6.4.3 Freeway Segments

Project traffic at Build-out on freeway segments of I-5 and SR-56 was added to existing traffic. **Table 6-11** shows the resulting levels of service with the project for the freeway segments analyzed. As shown in the table, there are no freeway segments operating at unacceptable levels of service.

6.4.4 Ramp Meters

Ramp meters were analyzed at the I-5 / Del Mar Heights Road interchange. **Table 6-12** shows the ramp meter analysis with the project for Build-out.

TABLE 6-11

Existing + Project (Build-out) Freeway Segment Levels of Service

Segment	Lanes	Dir.	Cap.	ADT	Peak Hour %	Dir. Split	Truck Factor	PHV	V/C	LOS
I-5										
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	NB	12,800	223,887	0.068	0.53	0.98	8,158	0.637	C
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	SB	12,800	223,887	0.067	0.55	0.98	8,421	0.658	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	NB	13,450	240,426	0.068	0.53	0.98	8,760	0.651	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	SB	13,450	240,426	0.067	0.55	0.98	9,043	0.672	C
Del Mar Heights Rd./ SR-56	6-GP+1-M	NB	15,780	245,853	0.068	0.53	0.98	8,958	0.568	B
Del Mar Heights Rd./ SR-56	6-GP+1-M	SB	15,780	245,853	0.067	0.55	0.98	9,247	0.586	B
SR-56/ Carmel Mountain Road	9-GP+1-M	NB	22,830	290,696	0.079	0.57	0.98	13,241	0.580	B
SR-56/ Carmel Mountain Road	8-GP+1-M	SB	20,480	290,696	0.080	0.55	0.98	13,003	0.635	C
Carmel Mountain Road/ I-805 Merge	10	NB	23,500	290,157	0.079	0.57	0.98	13,216	0.562	B
Carmel Mountain Road/ I-805 Merge	10	SB	23,500	290,157	0.080	0.55	0.98	12,979	0.552	B
SR-56										
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	EB	6,500	81,539	0.093	0.69	0.98	5,329	0.820	D
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	WB	6,500	81,539	0.094	0.70	0.98	5,465	0.841	D
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	EB	6,500	76,539	0.093	0.69	0.98	5,002	0.770	C
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	WB	6,500	76,539	0.094	0.70	0.98	5,130	0.789	C

Legend:

Dir.= Direction
 Cap. = Capacity
 ADT= Average Daily Traffic
 V/C= Volume to Capacity Ratio
 LOS= Level of Service
 PHV= Peak Hour Volume
 #-GP= # of General Purpose Lanes
 #-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1680 veh/hr/ln taken from Caltrans Guide, December 2002)
 #-HOV= # of High Occupancy Vehicle lane with LOS E capacity of 1,600 veh/hr/ln

Note:

Capacity for LOS "E" roadway is 2,350 veh/hr/ln.
 Taken from Transition between LOS "C" and LOS "D" criteria for Basic Freeway Segments @ 65 mi/hr in "Caltrans Guide for the Preparation of Traffic Impact Studies", December 2002
 AX = Auxiliary lane with LOS E capacity of 1,800 veh/hr/ln
 Peak Hour % and Dir. Split taken from Caltrans internet posted Traffic Volumes

TABLE 6-12

Existing + Project (Build-out) Ramp Meter Analysis

Most Restrictive Meter Rate

Location		Demand (Veh/Hr)	Meter Rate (Veh/Hr)	Excess Demand (Veh/Hr)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	451	368	83.0	13.53	2,407
	PM	393	368	24.5	3.99	711
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	360	499	0	0	0
	PM	204	499	0	0	0
Del Mar Heights Rd. / I-5 NB on Ramp	AM	N/A	Meter is not turned on			
	PM	592	593	0	0.00	0

NOTE:

Meter rate is based on the most restrictive meter rate provided by Caltrans

Delay = (Demand - Meter Rate) / Meter Rate * 60 minutes/hour

Queue = Excess Demand * 29 feet/vehicle

7.0 CUMULATIVE PROJECTS

Ten (10) other (i.e. cumulative) projects were found to add traffic within the project study area. Trip distribution, trip generation, and trip assignment data for these cumulative projects can be found in **Appendix F**. Volumes from the ten cumulative projects were extracted from other traffic studies, and added to existing traffic volumes to get Near Term volumes. These cumulative projects could potentially be implemented prior to certification of the EIR for the project, but were not built at the time of issuance of the NOP or collection of traffic counts for this analysis. **Figure 7-1** shows the cumulative projects average daily traffic volumes. **Figure 7-2** shows the cumulative projects AM/PM peak hour traffic volumes. The ten projects used to develop Near Term and cumulative volumes are listed below:

Flower Hill Promenade Redevelopment – The project is located on the north side of Via de la Valle between Interstate 5 and San Andres Drive. The expansion includes 28,930 square feet of office, 8,750 square feet of a community shopping center, 35,000 square feet of market, and 2,300 square feet of storage. The existing 600 seat cinema is to be demolished. After taking credit for existing uses to be demolished, the project will generate 5,463 average daily trips with 316 trips in the AM peak hour, and 595 trips in the PM peak hour. This project has been approved and is under construction.

The Heights at Del Mar – The project is located on the west side of El Camino Real between Townsgate Drive and Elijah Court. The project includes 66,108 square feet of commercial office in Building 1 and 80,513 square feet of commercial office in Building 3. The proposed project will generate 2,668 average daily trips with 347 trips in the AM peak hour, and 374 trips in the PM peak hour. This project is pending but on-hold at the time of issuance of the NOP.

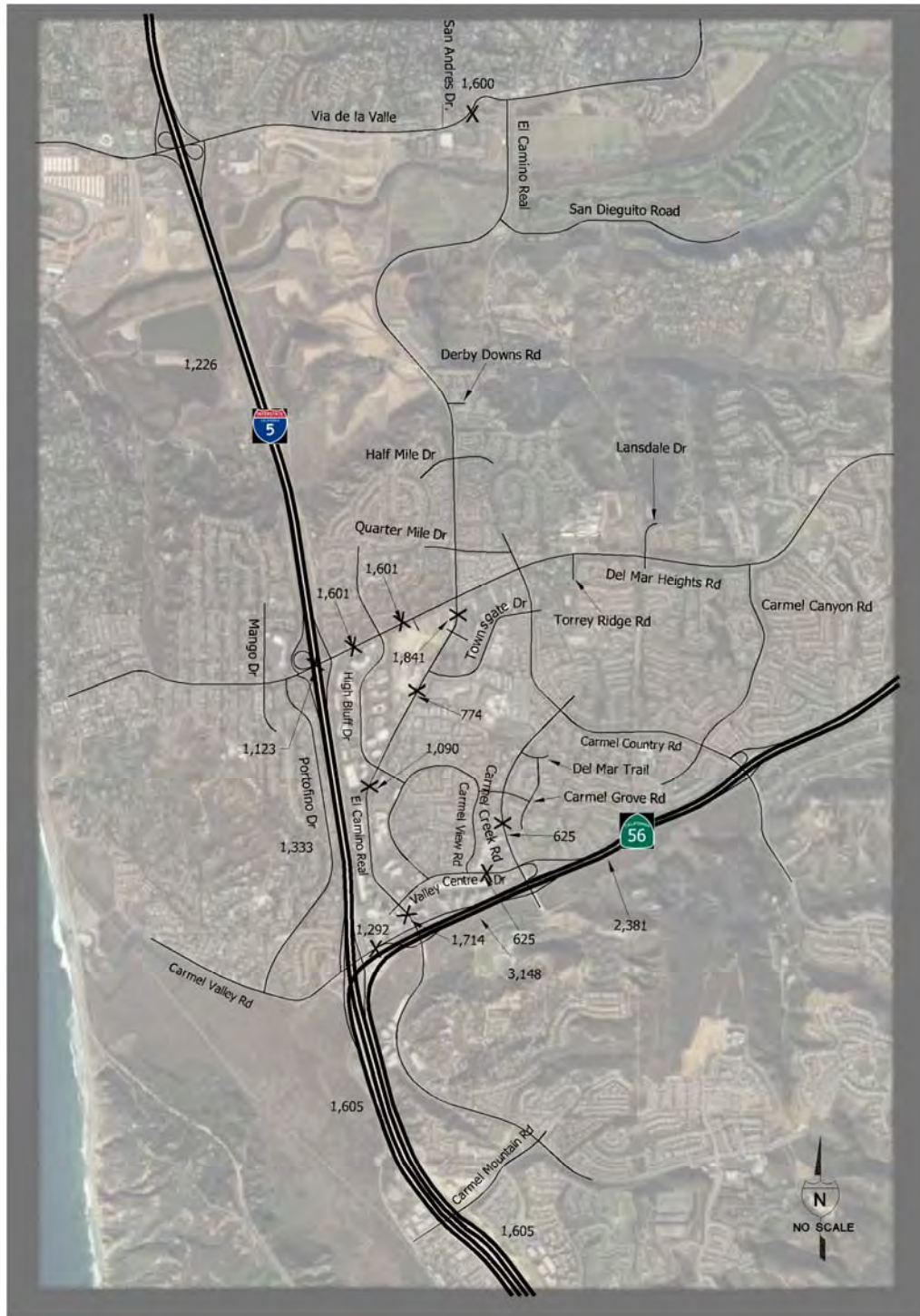


FIGURE 7-1

Cumulative Projects Average Daily Traffic Volumes

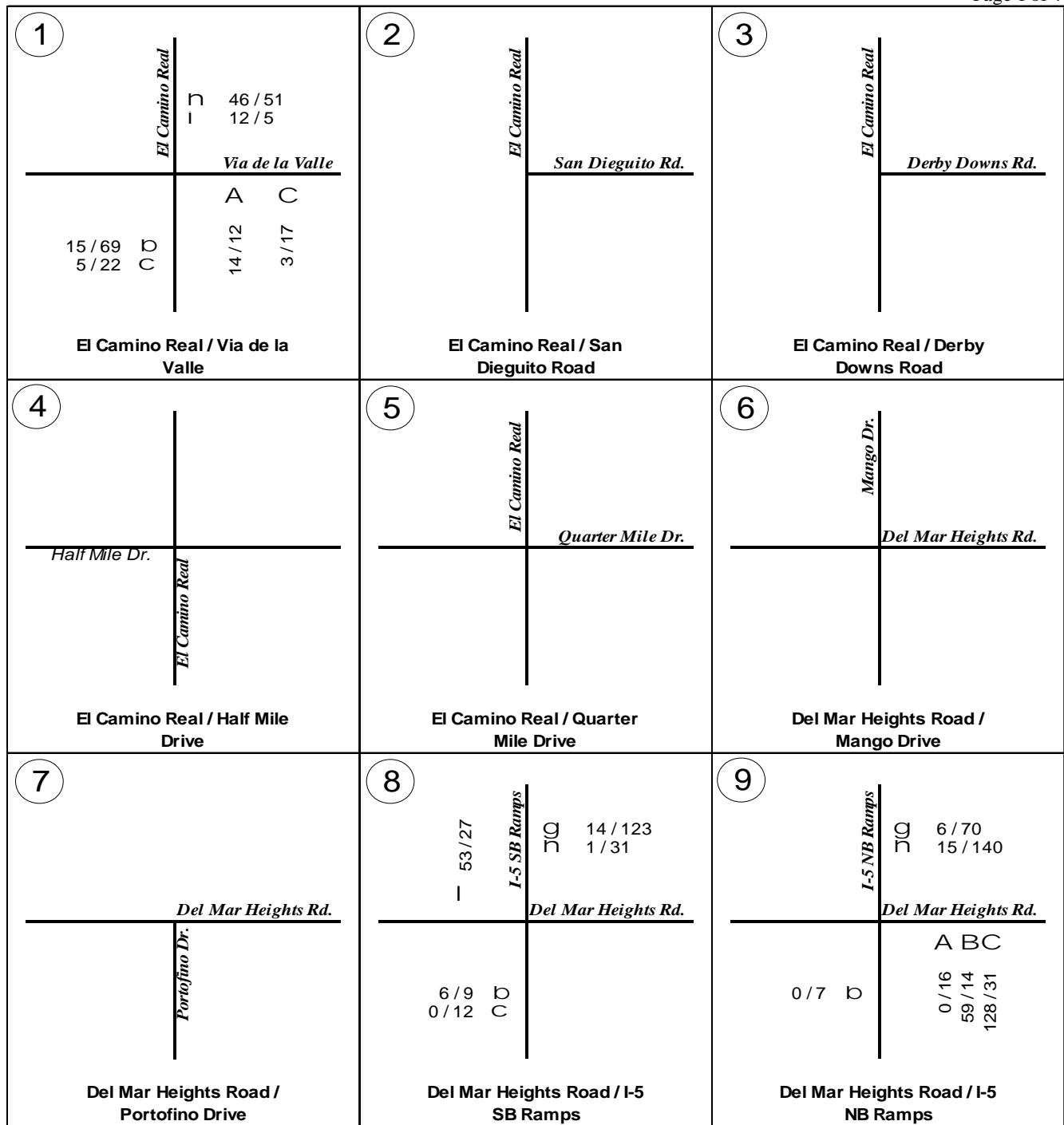


FIGURE 7-2

Cumulative Projects AM/PM Peak Hour Traffic Volumes

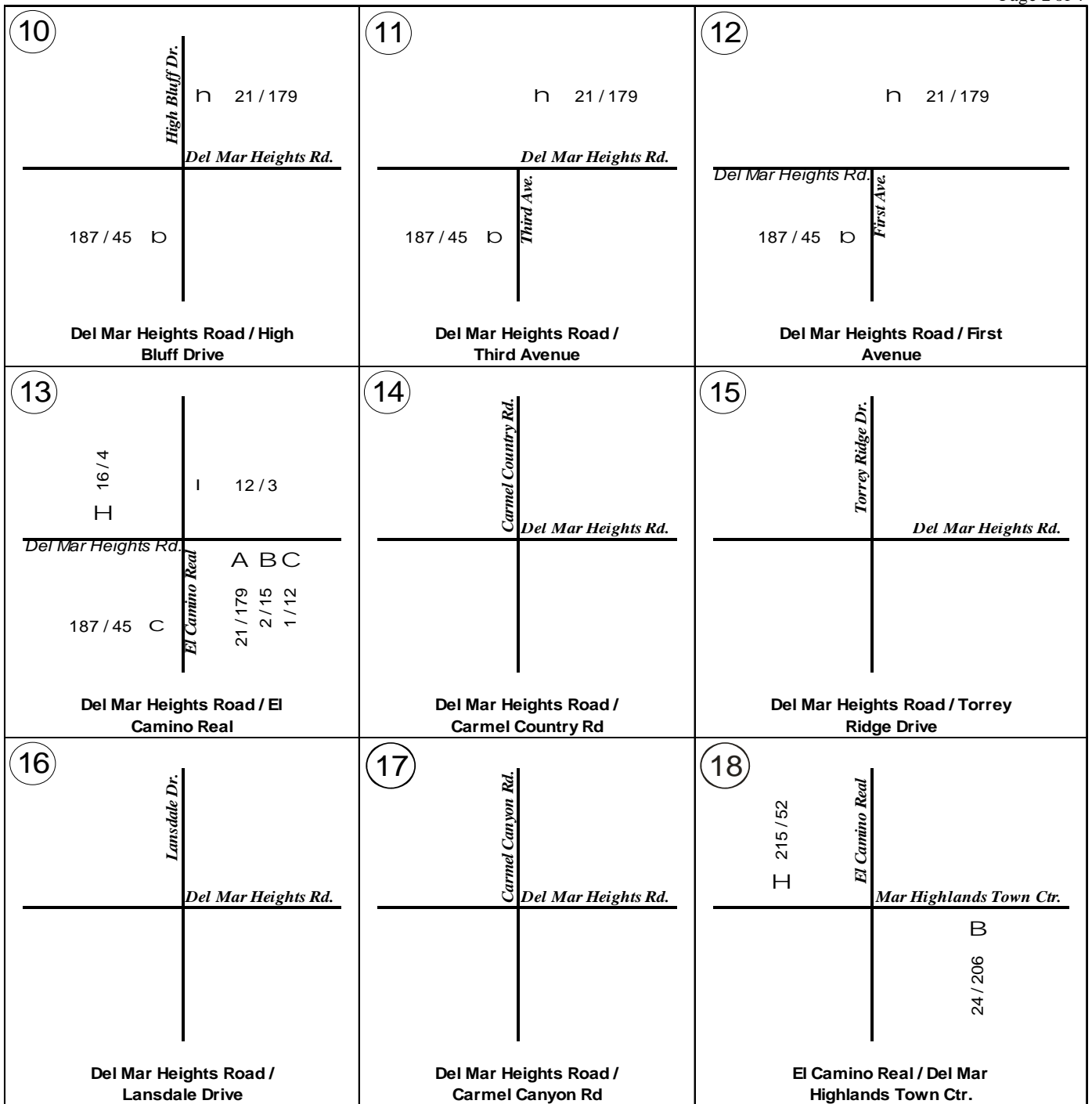


FIGURE 7-2

Cumulative Projects AM/PM Peak Hour Traffic Volumes

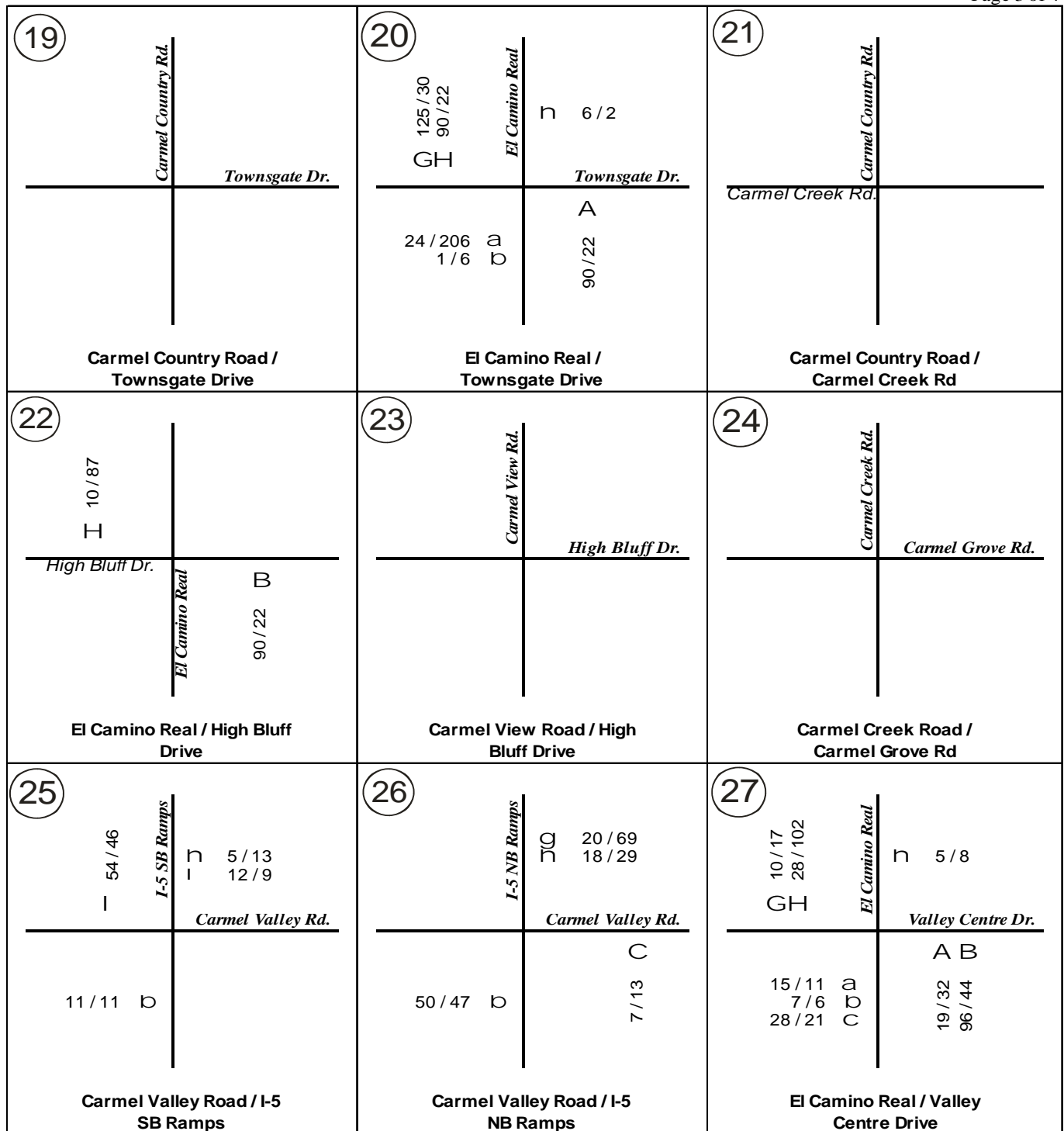


FIGURE 7-2

Cumulative Projects AM/PM Peak Hour Traffic Volumes

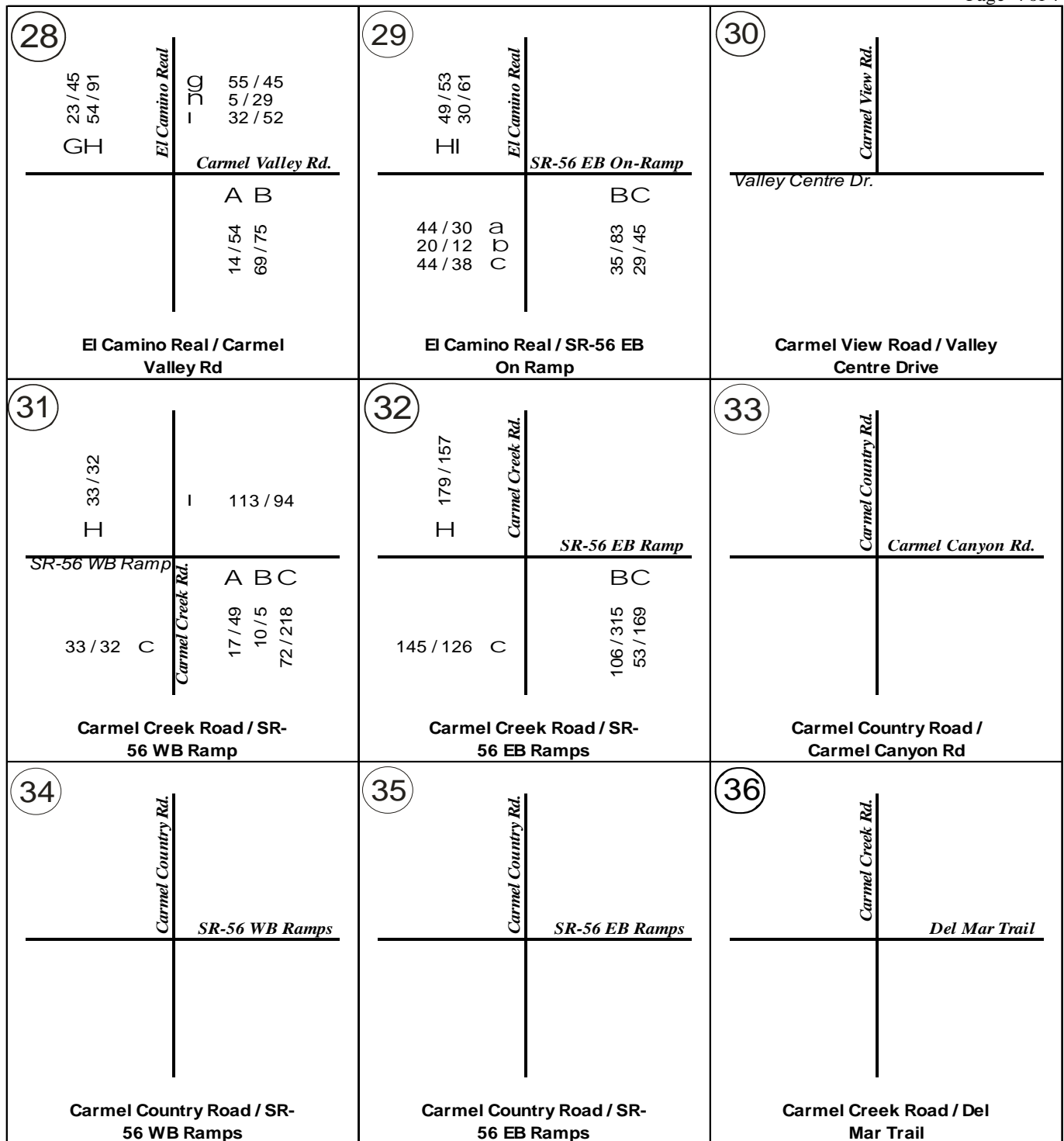


FIGURE 7-2

Cumulative Projects AM/PM Peak Hour Traffic Volumes

Carmel Valley Residence Inn – The project is located on the southwest corner of El Camino Real and Valley Center Drive. The proposed project consisting of 117 room motel will generate 1,054 average daily trips with 84 trips in the AM peak hour, and 95 trips in the PM peak hour. This project has been approved.

Torrey Reserve & Torrey Reserve Phase IV – The Torrey Reserve portion of the project will be located along the east side of El Camino Real north of Arroyo Sorrento Road. Torrey Reserve Phase IV portion of the project will be located along the west side of El Camino Real north of the existing Torrey Reserve signalized driveway. The proposed project is a multi-use development consisting of commercial office, retail, restaurant and bank. Torrey Reserve and Torrey Reserve Phase IV portions of the proposed project will include 38,400 and 40,000 square feet of new buildings, respectively. The proposed project will generate 3,546 average daily trips with 234 trips in the AM peak hour, and 368 trips in the PM peak hour. This project has been approved.

Gables Residential – The project is located on the east side of Carmel Creek Road south of SR-56. The project is to construct 92 multi-family dwelling units. The proposed project will generate 552 average daily trips with 44 trips in the AM peak hour, and 55 trips in the PM peak hour. This project has been approved.

Seabreeze Carmel View – The project is located on the southwest corner of Shaw Ridge Road and Carmel Creek Road. The proposed project includes 125,000 square feet of medical office which will generate 6,250 average daily trips with 375 trips in the AM peak hour, and 625 trips in the PM peak hour. This project has been approved.

Pepper Tree Point – The project is located on Carmel Creek Road south of Shaw Ridge Road. The proposed project is to construct 150 multi-family dwelling units which will generate 900 average daily trips with 72 trips in the AM peak hour, and 81 trips in the PM peak hour. This project has been approved.

22nd District Agricultural Association 2008 Master Plan (Del Mar Fairgrounds / Racetrack) – The project is located on the southwest corner of Via de la Valle and Jimmy Durante Blvd. just west of Interstate 5. The 2008 Master Plan consisted of constructing a new flat floor exhibit building (26,200 sf.); a Conference Hotel (330 rooms); a Health Club/Sports Training Facility (60,000 sf.); and an east parking lot improvement. In the “off season”, the proposed master plan would generate 6,960 average daily trips. The “off season” scenario was used as a near term project in this report for analysis purposes. This project was approved (but the hotel has been removed from the plan).

Rancho Del Mar – The proposed project is located on the south end of Via de la Valle and El Camino Real (east). Rancho Del Mar is planning to construct a senior housing development consisting of 225 dwelling units which would generate 900 average daily trips. This project is pending approval.

Sharif: De La Valle - This project is located on the north side of Via de la Valle just east of San Andres Drive. The proposed project consists of 22 townhomes which would generate 220 average daily trips. This project is pending approval.

8.0 NEAR TERM SCENARIO WITHOUT PROJECT

In order to determine Near Term traffic conditions, USAI followed the methodology outlined in the City of San Diego Traffic Impact Study Manual. An examination of the immediate area surrounding One Paseo yielded ten (10) projects that were approved, pending approval, or planned in the area and could potentially be implemented in the near term, or prior to certification of the EIR. Each of these was evaluated as shown in the previous section of this report. Traffic from these projects was added to the existing traffic to reflect a “Near Term” scenario. A three (3%) percent total increase has been added to the existing traffic volumes to account for potential unforeseen increases in traffic in the study area. The three percent increase is in addition to the ten cumulative projects. This scenario represents near-term traffic conditions prior to the addition of One Paseo project traffic.

8.1.1 STREET SEGMENTS

Figure 8-1 shows average daily traffic volumes from the “cumulative projects” added to existing average daily traffic volumes.

Table 8-1 shows street segment levels of service and significant impact measure without project traffic. The following street segment is projected to operate at an unacceptable level of service in the Near Term condition without the project and without mitigation:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Via de la Valle	San Andres Dr. to El Camino Real	F
El Camino Real	Via de la Valle to San Deiguito Rd.	F
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F

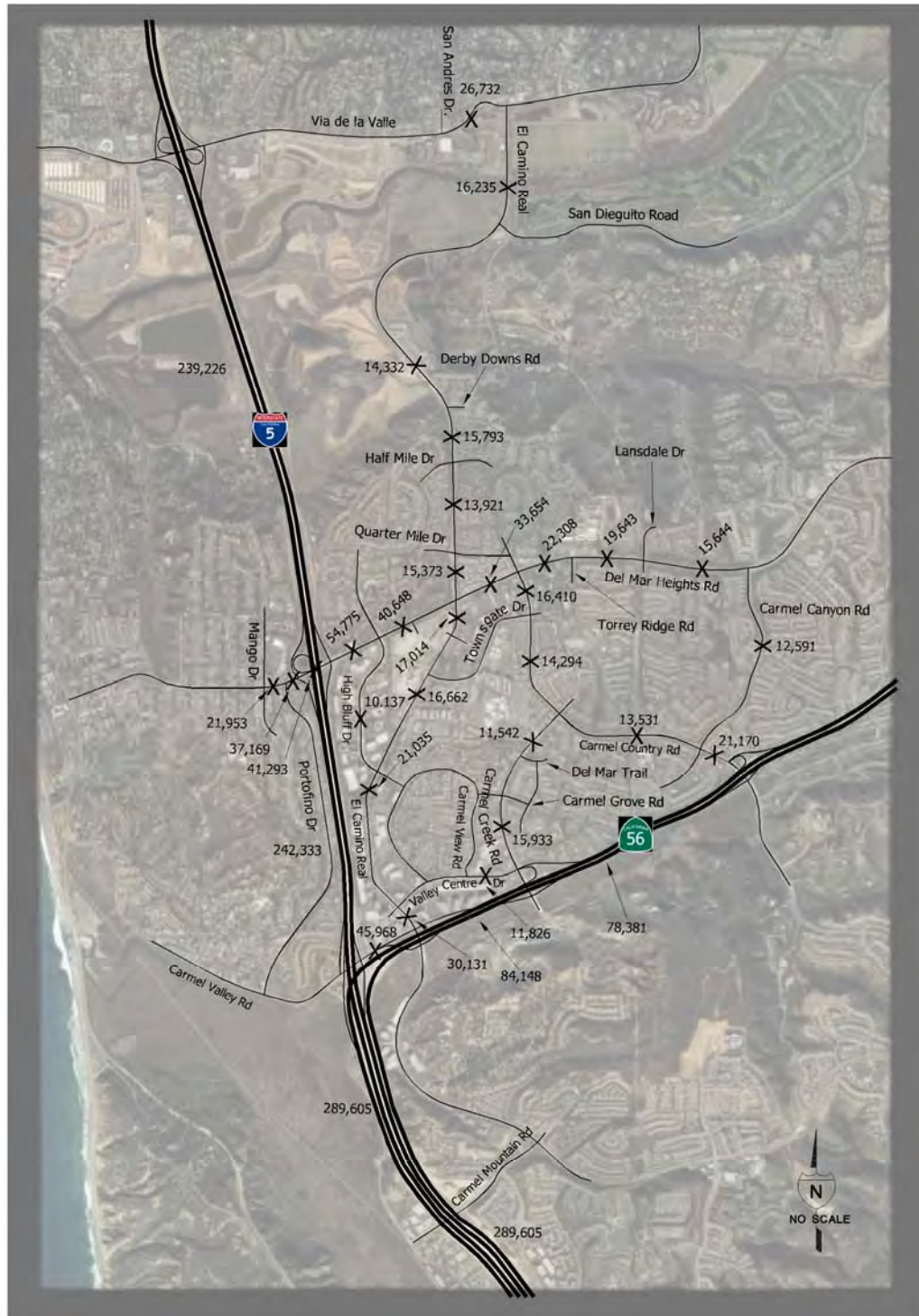


FIGURE 8-1
Near Term Without Project Average Daily Traffic

TABLE 8-1

Near Term Without Project Street Segment Levels of Service

Road	Segment	Jurisd.	Functional Class.	Capacity at LOS E	Volume	V/C	LOS
Del Mar Heights Rd.	Mango Drive to Portofino Drive	SD	5-M	45,000	21,953	0.49	B
	Portofino Drive to I-5 Southbound Ramps	SD	5-PA	50,000	37,169	0.74	C
	I-5 Southbound Ramps and I-5 Northbound Ramps	SD	5-PA	50,000	41,213	0.82	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	54,775	0.91	D
	High Bluff Drive to Third Avenue	SD	PA	60,000	40,648	0.68	C
	Thirth Avenue to First Avenue	SD	PA	60,000	40,648	0.68	C
	First Avenue to El Camino Real	SD	PA	60,000	40,648	0.68	C
	El Camino Real to Carmel Country Road	SD	PA	60,000	33,654	0.56	B
	Carmel Country Road to Torrey Ridge Road	SD	PA	60,000	22,308	0.37	A
	Torrey Ridge Road to Lansdale Drive	SD	PA	60,000	19,643	0.33	A
Lansdale Drive to Carmel Canyon Road	SD	PA	60,000	15,644	0.26	A	
El Camino Real	Via de la Valle to San Dieguito Road	SD	2-Ca	15,000	16,235	1.08	F
	San Dieguito Road to Derby Downs Road	SD	4-M	40,000	14,332	0.36	A
	Derby Downs Road to Half Mile Drive	SD	4-M	40,000	15,793	0.39	B
	Half Mile Drive to Quarter Mile Drive	SD	4-M	40,000	13,921	0.35	A
	Quarter Mile Drive to Del Mar Heights Road	SD	4-M	40,000	15,373	0.38	B
	Del Mar Heights Road to Townsgate Drive	SD	6-M	50,000	17,014	0.34	A
	Townsgate Drive to High Bluff Drive	SD	6-M	50,000	16,662	0.33	A
	High Bluff Drive to Valley Centre Drive	SD	6-M	50,000	21,035	0.42	B
Valley Centre Drive to Carmel Valley Road	SD	5-M	45,000	30,131	0.67	C	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	SD	4-M	40,000	16,410	0.41	B
	Townsgate Drive to Carmel Creek Road	SD	4-M	40,000	14,294	0.36	A
	Carmel Creek Road to Carmel Canyon Road	SD	4-M	40,000	13,531	0.34	A
	Carmel Canyon Road to SR-56 Westbound Ramps	SD	4-M	40,000	21,170	0.53	C
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	SD	4-M	40,000	12,591	0.31	A
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	SD	4-M	40,000	11,542	0.29	A
	Carmel Grove Road to SR-56 Westbound Ramps	SD	4-M	40,000	15,933	0.40	B
Valley Centre Drive	Carmel View Road to Carmel Creek Road	SD	4-C	30,000	11,826	0.39	B
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	SD	PA	60,000	45,968	0.77	C
High Bluff Drive	Del Mar Heights Road to El Camino Real	SD	2-Ca	15,000	10,137	0.68	D
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	2-Cb	10,000	26,732	2.67	F

Legend:

- PA = 6 lane Primary Arterial
- SD= City of San Diego
- Cap.= Capacity
- Class.= Classification
- LOS= Level of Service
- V/C= Volume to Capacity Ratio
- 6-M = 6 lane Major
- 4-M=4 lane Major
- 2-Ca=2 lane collector
- 2-Cb = 2 lane Collector with no fronting property
- 5-M = 5 lane Major with LOS E capacity of 45,000 ADT
- 5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

8.1.1 INTERSECTIONS

Figure 8-2 shows the peak hour traffic volumes from the “cumulative projects” when added to existing peak hour volumes at the study area intersections. **Table 8-2** shows the resulting AM and PM peak hour levels of service. As shown in **Table 8-2**, all intersections are projected to operate at acceptable levels of service in the AM and PM peak hour except for Carmel Creek Road at Del Mar Trail which operates at LOS “E” in the AM peak hour and Carmel Country and Carmel Creek operating at LOS E in the AM.

Appendix G includes the Near Term without Project Synchro worksheets.

8.1.2 FREEWAY SEGMENTS

Table 8-3 shows the resulting levels of service for the I-5 and SR-56 freeway segments analyzed. As shown in **Table 8-3**, all freeway segments are projected to operate at acceptable levels of service.

8.1.3 RAMP METERS

Table 8-4 shows the resulting delays and queues for the I-5 / Del Mar Heights Rd northbound and southbound ramps.

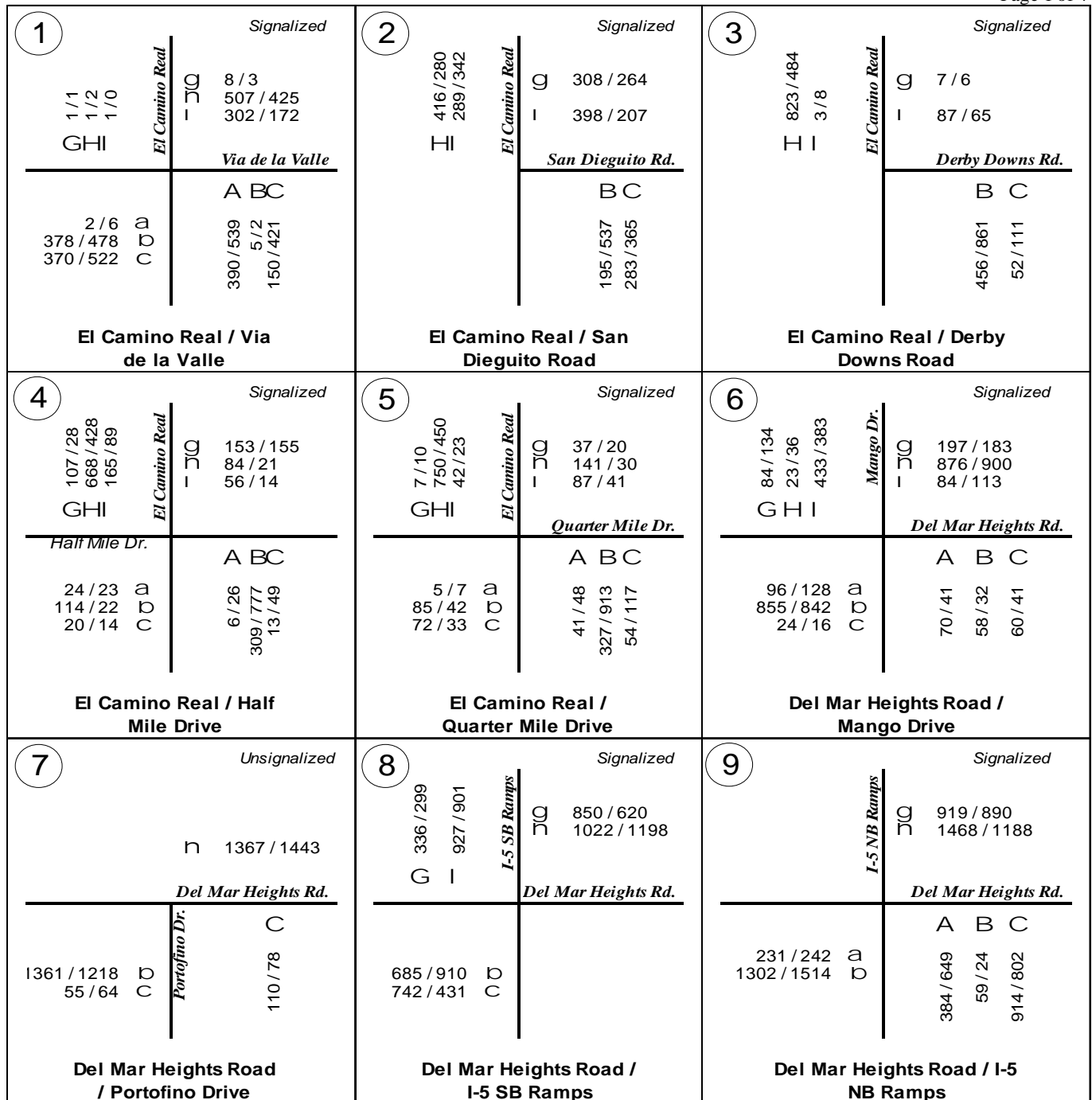


FIGURE 8-2

Near Term Without Project AM/PM Peak Hour Traffic Volumes

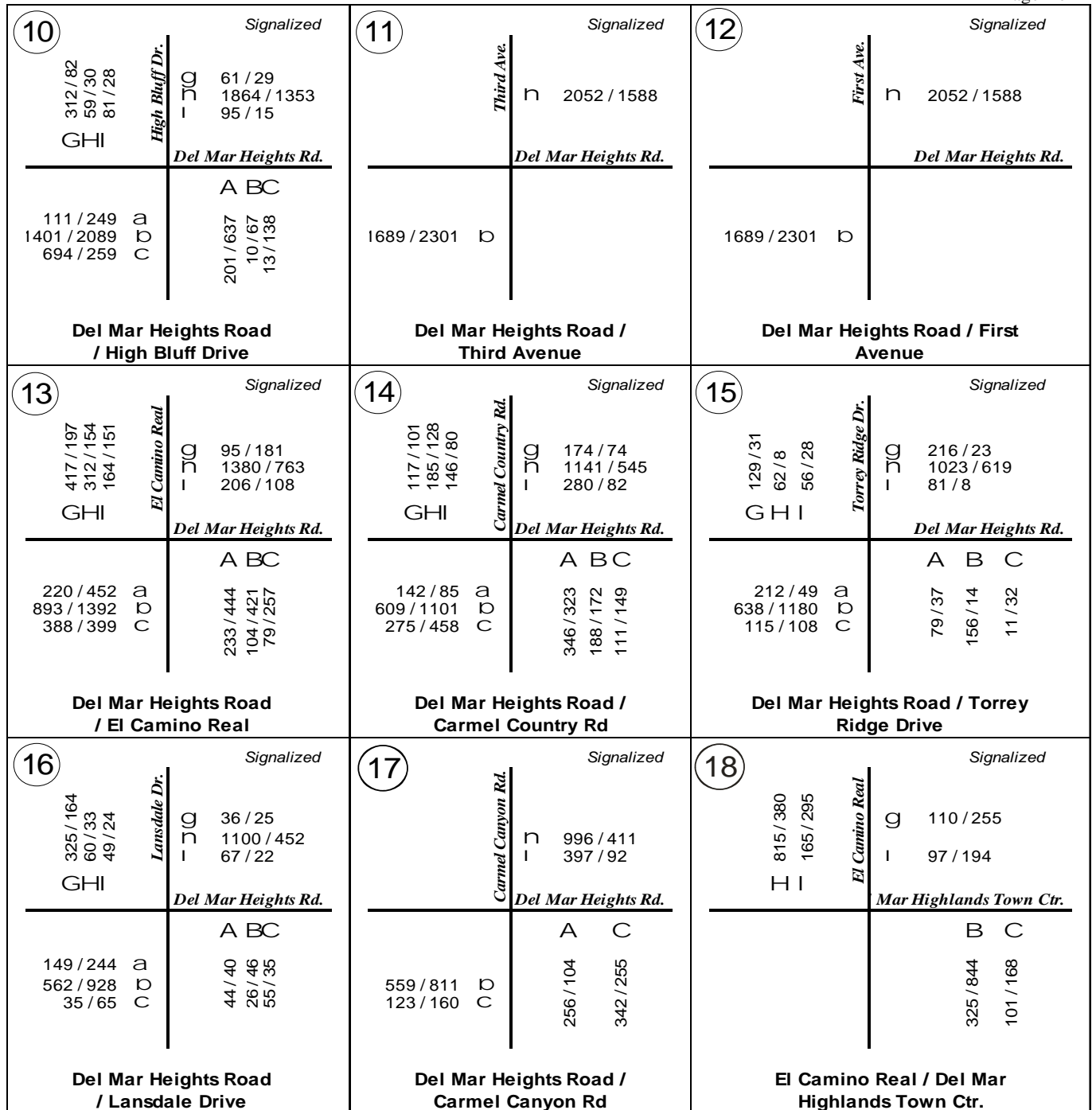


FIGURE 8-2

Near Term Without Project AM/PM Peak Hour Traffic Volumes

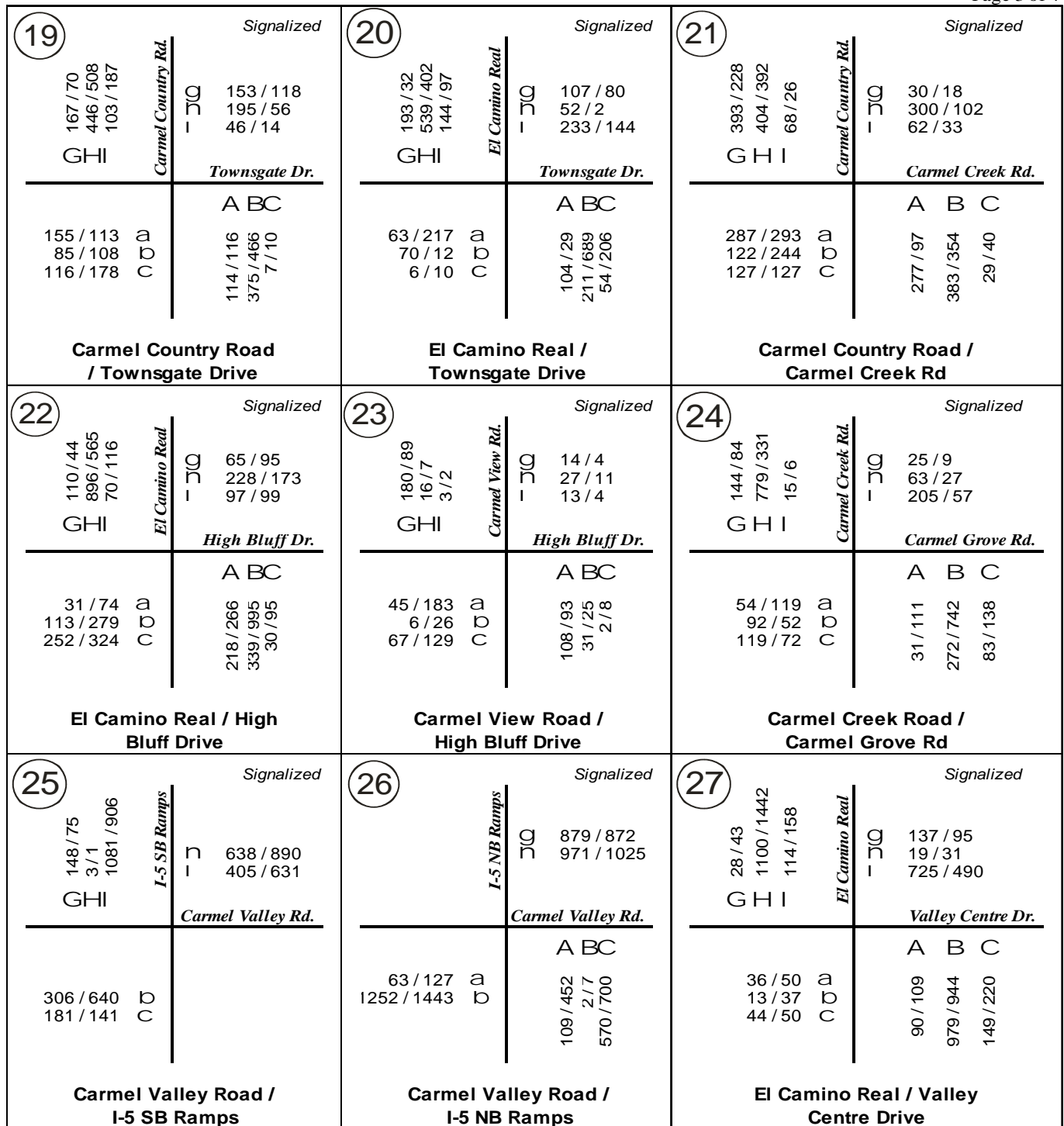


FIGURE 8-2

Near Term Without Project AM/PM Peak Hour Traffic Volumes

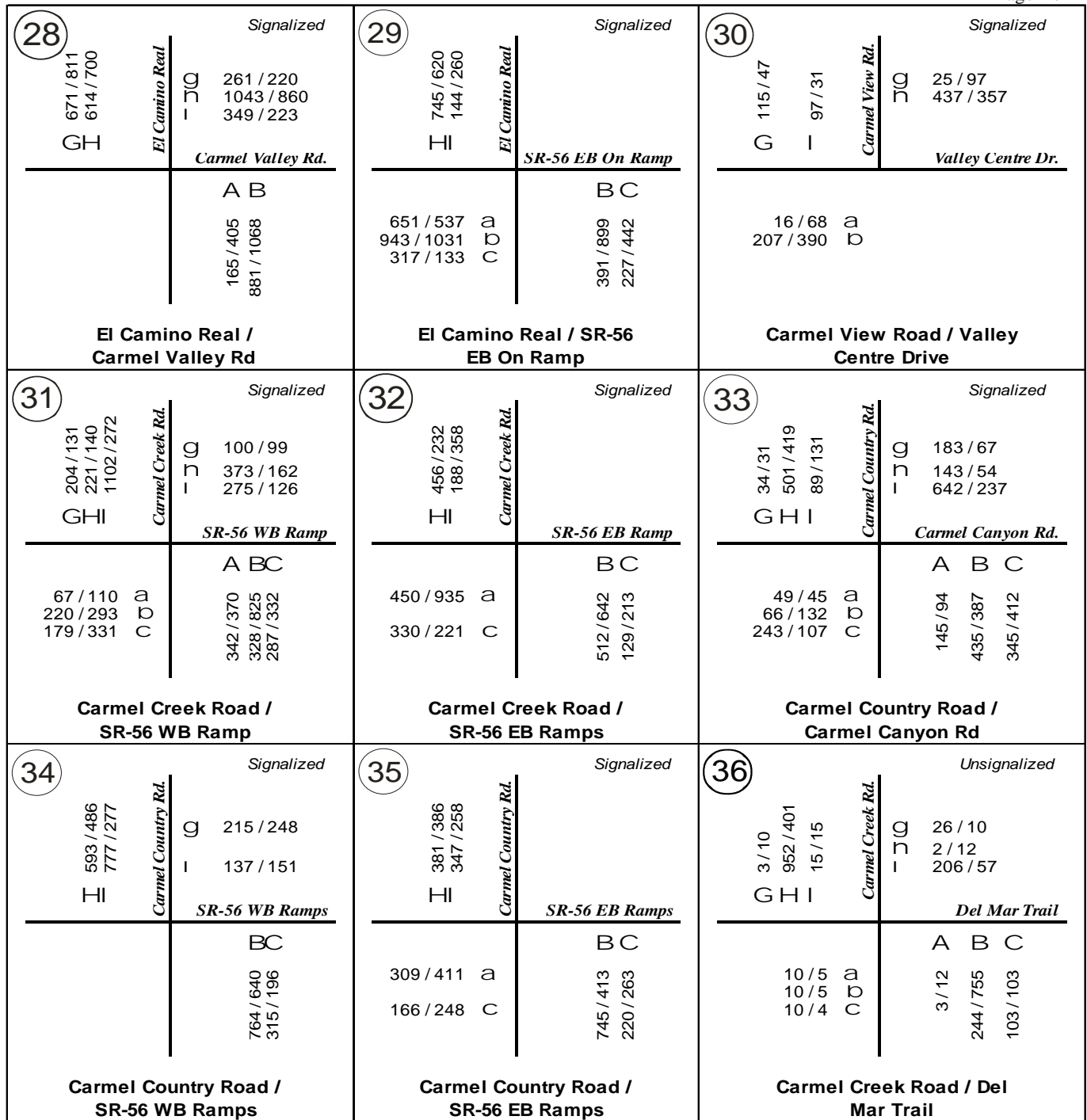


FIGURE 8-2

Near Term Without Project AM/PM Peak Hour Traffic Volumes

TABLE 8-2

Near Term Without Project Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Via de la Valle	Signalized	31.4	C	38.8	D
2	El Camino Real / San Dieguito Road	Signalized	16.9	B	25.2	C
3	El Camino Real / Derby Downs Road	Signalized	4.3	A	4.5	A
4	El Camino Real / Half Mile Drive	Signalized	20.6	B	14	B
5	El Camino Real / Quarter Mile Drive	Signalized	20.6	C	15.1	B
6	Del Mar Heights Road / Mango Drive	Signalized	33.3	C	31.4	C
7	Del Mar Heights Road / Portofino Drive	Minor Street	9.4	A	9.2	A
8	Del Mar Heights Road / I-5 SB Ramps	Signalized	24.8	C	23	C
9	Del Mar Heights Road / I-5 NB Ramps	Signalized	39.6	D	38.3	D
10	Del Mar Heights Road / High Bluff Drive	Signalized	28.5	C	32.1	C
11	Del Mar Heights Road / Third Avenue	Signalized	DNE	DNE	DNE	DNE
12	Del Mar Heights Road / First Avenue	Signalized	DNE	DNE	DNE	DNE
13	Del Mar Heights Road / El Camino Real	Signalized	29.9	C	29.5	C
14	Del Mar Heights Road / Carmel Country Rd	Signalized	22.9	C	21.1	C
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized	23.6	C	11.9	B
16	Del Mar Heights Road / Lansdale Drive	Signalized	19	B	17.6	B
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized	13.8	B	10.2	B
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized	6.8	A	13.5	B
19	Carmel Country Road / Townsgate Drive	Signalized	26.5	C	21.8	C
20	El Camino Real / Townsgate Drive	Signalized	21.3	C	20.7	C
21	Carmel Country Road / Carmel Creek Rd	Signalized	58.6	E	24.1	C
22	El Camino Real / High Bluff Drive	Signalized	21.1	C	26.2	C
23	Carmel View Road / High Bluff Drive	All Way Stop	8.4	A	9.1	A
24	Carmel Creek Road / Carmel Grove Rd	Signalized	27.8	C	17.5	B
25	Carmel Valley Road / I-5 SB Ramps	Signalized	22.6	C	32.1	C
26	Carmel Valley Road / I-5 NB Ramps	Signalized	13.6	B	20.4	C
27	El Camino Real / Valley Centre Drive	Signalized	24.6	C	23.2	C
28	El Camino Real / Carmel Valley Rd	Signalized	14.8	B	19.2	B
29	El Camino Real / SR-56 EB On Ramp	Signalized	18	B	32.3	C
30	Carmel View Road / Valley Centre Drive	Signalized	7.4	A	8.3	A
31	Carmel Creek Road / SR-56 WB Ramp	Signalized	45.7	D	27	C
32	Carmel Creek Road / SR-56 EB Ramps	Signalized	12.5	B	27.4	C
33	Carmel Country Road / Carmel Canyon Rd	Signalized	33.1	C	25.6	C
34	Carmel Country Road / SR-56 WB Ramps	Signalized	16.2	B	10.9	B
35	Carmel Country Road / SR-56 EB Ramps	Signalized	14.1	B	11.7	B
36	Carmel Creek Road / Del Mar Trail	All Way Stop	47.9	E	21.7	C

Notes:

DNE = Does not exist

Orange indicates unacceptable level of service.

Intersection #36 reports the worst approach delay and level of service

TABLE 8-3

Near Term Without Project Freeway Segment Levels of Service

Segment	Lanes	Dir.	Cap.	ADT	Peak Hour %	Dir. Split	Truck Factor	PHV	V/C	LOS
I-5										
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	NB	12,800	223,226	0.068	0.53	0.98	8,134	0.635	C
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	SB	12,800	223,179	0.067	0.55	0.98	8,394	0.656	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	NB	13,450	239,226	0.068	0.53	0.98	8,716	0.648	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	SB	13,450	239,179	0.067	0.55	0.98	8,996	0.669	C
Del Mar Heights Rd./ SR-56	6-GP+1-M	NB	15,780	242,333	0.068	0.53	0.98	8,830	0.560	B
Del Mar Heights Rd./ SR-56	6-GP+1-M	SB	15,780	242,275	0.067	0.55	0.98	9,112	0.577	B
SR-56/ Carmel Mountain Road	9-GP+1-M	NB	22,830	289,605	0.079	0.57	0.98	13,191	0.578	B
SR-56/ Carmel Mountain Road	8-GP+1-M	SB	20,480	289,605	0.080	0.55	0.98	12,954	0.633	C
Carmel Mountain Road/ I-805 Merge	10	NB	23,500	289,605	0.079	0.57	0.98	13,191	0.561	B
Carmel Mountain Road/ I-805 Merge	10	SB	23,500	289,605	0.080	0.55	0.98	12,954	0.551	B
SR-56										
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	EB	6,500	84,148	0.093	0.69	0.98	5,499	0.846	D
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	WB	6,500	84,148	0.094	0.70	0.98	5,640	0.868	D
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	EB	6,500	78,381	0.093	0.69	0.98	5,123	0.788	C
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	WB	6,500	78,381	0.094	0.70	0.98	5,253	0.808	D

Legend:

Dir.= Direction
 Cap. = Capacity
 ADT= Average Daily Traffic
 V/C= Volume to Capacity Ratio
 LOS= Level of Service
 PHV= Peak Hour Volume
 #-GP= # of General Purpose Lanes
 #-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1680 vphpl taken from Caltrans Guide, December 2002)
 HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 vphpl

Note:

Capacity for LOS "E" roadway is 2,350 vphpl.
 Taken from Transition between LOS "C" and LOS "D" criteria for Basic Freeway Segments @ 65 mi/hr in "Caltrans Guide for the Preparation of Traffic Impact Studies", December 2002
 AX = Auxiliary Lane with LOS "E" capacity of 1,800 vphpl
 Peak Hour % and Dir. Split taken from Caltrans internet posted Traffic Volumes

TABLE 8-4

Near Term Without Project Ramp Meter Analysis

Most Restrictive Meter Rate

Location		Demand (Veh/Hr)	Meter Rate (Veh/Hr)	Excess Demand (Veh/Hr)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	425	368	57	9.29	1,653
	PM	310	368	0	0	0
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	371	499	0	0	0
	PM	216	499	0	0	0
Del Mar Heights Rd. / I-5 NB on Ramp	AM	N/A	Meter is not turned on			
	PM	566	593	0	0	0

NOTE:

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

Delay = (Demand - Meter Rate) / Meter Rate * 60 minutes/hour

Queue = Excess Demand * 29 feet/vehicle

9.0 NEAR TERM WITH PROJECT PHASE 1

This section of the report evaluates the Near Term with Project Phase 1 traffic conditions by adding the “cumulative projects” plus the One Paseo project traffic in Phase 1 to existing volumes and evaluating project traffic impacts. This scenario differs from the existing with project analysis insofar as it takes into account traffic anticipated from other approved or anticipated projects not yet completed or constructed, but which could potentially be implemented between the time of circulation of the NOP for the project and the anticipated date of certification of the EIR.

9.1 STREET SEGMENTS

Figure 9-1 shows average daily traffic volumes with project (Phase 1) traffic added to Near Term traffic volumes.

Table 9-1 shows street segment levels of service with the One Paseo project traffic added to Near Term conditions. The following street segments are projected to operate at an unacceptable level of service:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F
Via de la Valle	San Andres Dr. to El Camino Real	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F



FIGURE 9-1

Near Term With Project Average Daily Traffic (Phase 1)

TABLE 9-1
Near Term With Project Street Segment Levels of Service
(Phase 1)

Road	Segment	Jurisd.	Functional Class.	Capacity at LOS E	Volume	V/C	LOS
Del Mar Heights Rd.	Mango Drive to Portofino Drive	SD	5-M	45,000	22,843	0.51	B
	Portofino Drive to I-5 Southbound Ramps	SD	5-PA	50,000	38,355	0.77	C
	I-5 Southbound Ramps and I-5 Northbound Ramps	SD	5-PA	50,000	43,289	0.87	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	58,631	0.98	E
	High Bluff Drive to Third Avenue	SD	PA	60,000	45,098	0.75	C
	Thirth Avenue to First Avenue	SD	PA	60,000	44,109	0.74	C
	First Avenue to El Camino Real	SD	PA	60,000	43,120	0.72	C
	El Camino Real to Carmel Country Road	SD	PA	60,000	36,324	0.61	C
	Carmel Country Road to Torrey Ridge Road	SD	PA	60,000	23,593	0.39	A
	Torrey Ridge Road to Lansdale Drive	SD	PA	60,000	20,533	0.34	A
	Lansdale Drive to Carmel Canyon Road	SD	PA	60,000	16,138	0.27	A
El Camino Real	Via de la Valle to San Dieguito Road	SD	2-Ca	15,000	16,532	1.10	F
	San Dieguito Road to Derby Downs Road	SD	4-M	40,000	14,728	0.37	A
	Derby Downs Road to Half Mile Drive	SD	4-M	40,000	16,189	0.40	B
	Half Mile Drive to Quarter Mile Drive	SD	4-M	40,000	14,416	0.36	A
	Quarter Mile Drive to Del Mar Heights Road	SD	4-M	40,000	15,966	0.40	B
	Del Mar Heights Road to Townsgate Drive	SD	6-M	50,000	18,497	0.37	A
	Townsgate Drive to High Bluff Drive	SD	6-M	50,000	17,947	0.36	A
	High Bluff Drive to Valley Centre Drive	SD	6-M	50,000	21,925	0.44	B
Valley Centre Drive to Carmel Valley Road	SD	5-M	45,000	30,724	0.68	C	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	SD	4-M	40,000	17,399	0.43	B
	Townsgate Drive to Carmel Creek Road	SD	4-M	40,000	15,085	0.38	B
	Carmel Creek Road to Carmel Canyon Road	SD	4-M	40,000	14,026	0.35	A
	Carmel Canyon Road to SR-56 Westbound Ramps	SD	4-M	40,000	21,565	0.54	C
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	SD	4-M	40,000	12,788	0.32	A
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	SD	4-M	40,000	11,839	0.30	A
	Carmel Grove Road to SR-56 Westbound Ramps	SD	4-M	40,000	16,230	0.41	B
Valley Centre Drive	Carmel View Road to Carmel Creek Road	SD	4-C	30,000	11,925	0.40	B
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	SD	PA	60,000	46,166	0.77	C
	High Bluff Drive	Del Mar Heights Road to El Camino Real	SD	2-Ca	15,000	10,434	0.70
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	2-Cb	10,000	26,930	2.69	F

Legend:

SD= City of San Diego
 Cap.= Capacity
 Class.= Classification
 LOS= Level of Service
 V/C= Volume to Capacity Ratio

PA = 6 lane Primary Arterial
 6-M = 6 lane Major
 4-M=4 lane Major
 2-Ca=2 lane collector
 2-Cb = 2 lane Collector with no fronting property
 5-M = 5 lane Major with LOS E capacity of 45,000 ADT
 5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

9.2 INTERSECTIONS

Figure 9-2 Near Term conditions plus the One Paseo (Phase 1) combined traffic volumes during AM/PM peak hours at study area intersections.

Table 9-2 includes study area intersection levels of service with the One Paseo project traffic added. As shown, all intersections are projected to operate at acceptable levels of service except for Carmel Creek Road at Del Mar Trail which operates at LOS “E” in the AM peak hour and Carmel Country Road at Carmel Creek Road which operates at LOS “E” in the AM peak hour.

Appendix H includes the Near Term with Project (Phase 1) Synchro worksheets.

9.3 FREEWAY SEGMENTS

Table 9-3 shows the resulting levels of service for the I-5 and SR-56 freeway segments analyzed. As shown in **Table 9-3**, all freeway segments are projected to operate at acceptable levels of service.

9.4 RAMP METERS

Table 9-4 shows the resulting delays and queues for the I-5 / Del Mar Heights Rd northbound and southbound ramps.

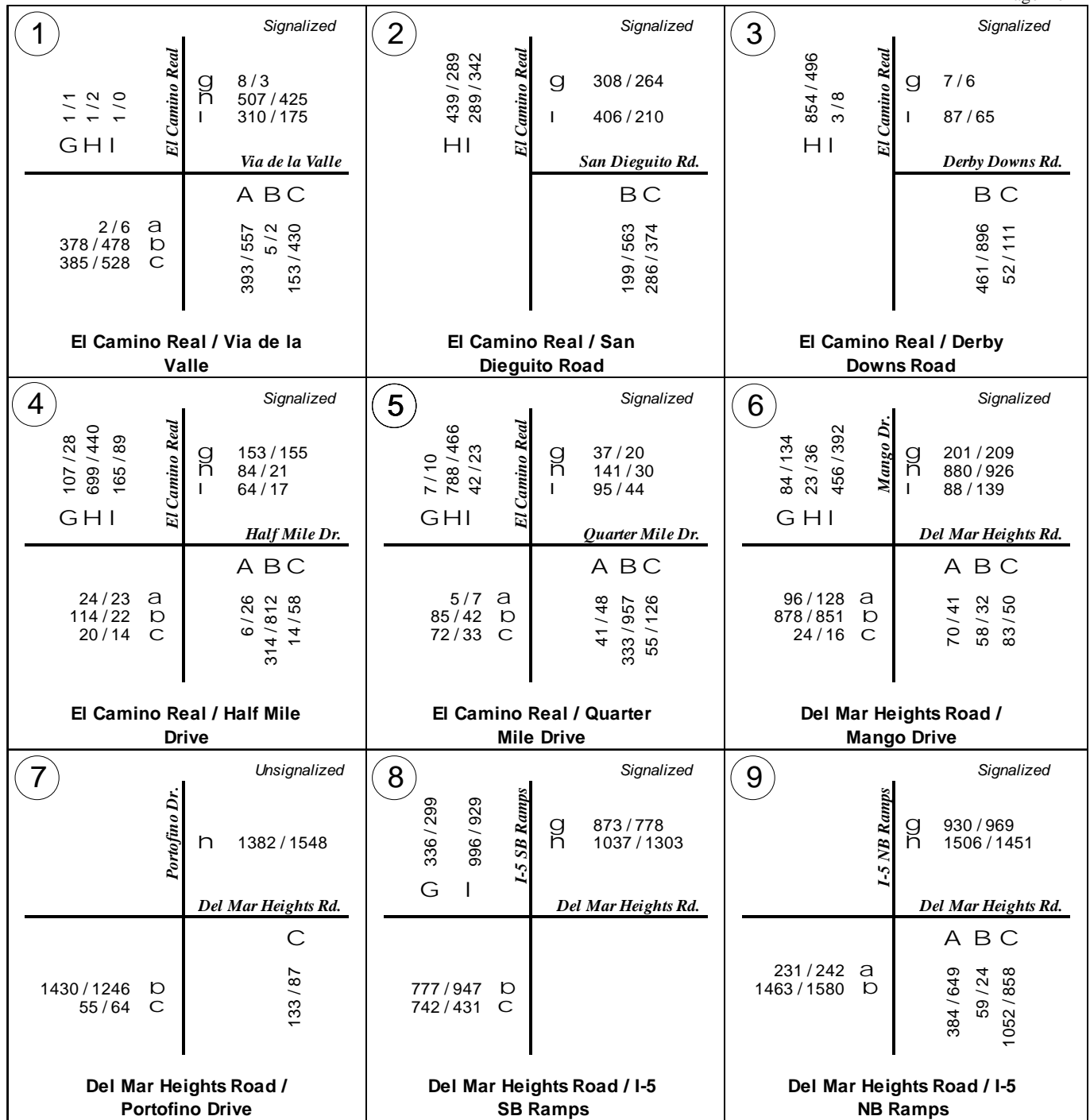


FIGURE 9-2
Near Term With Project AM/PM Peak Hour Traffic
(Phase 1)

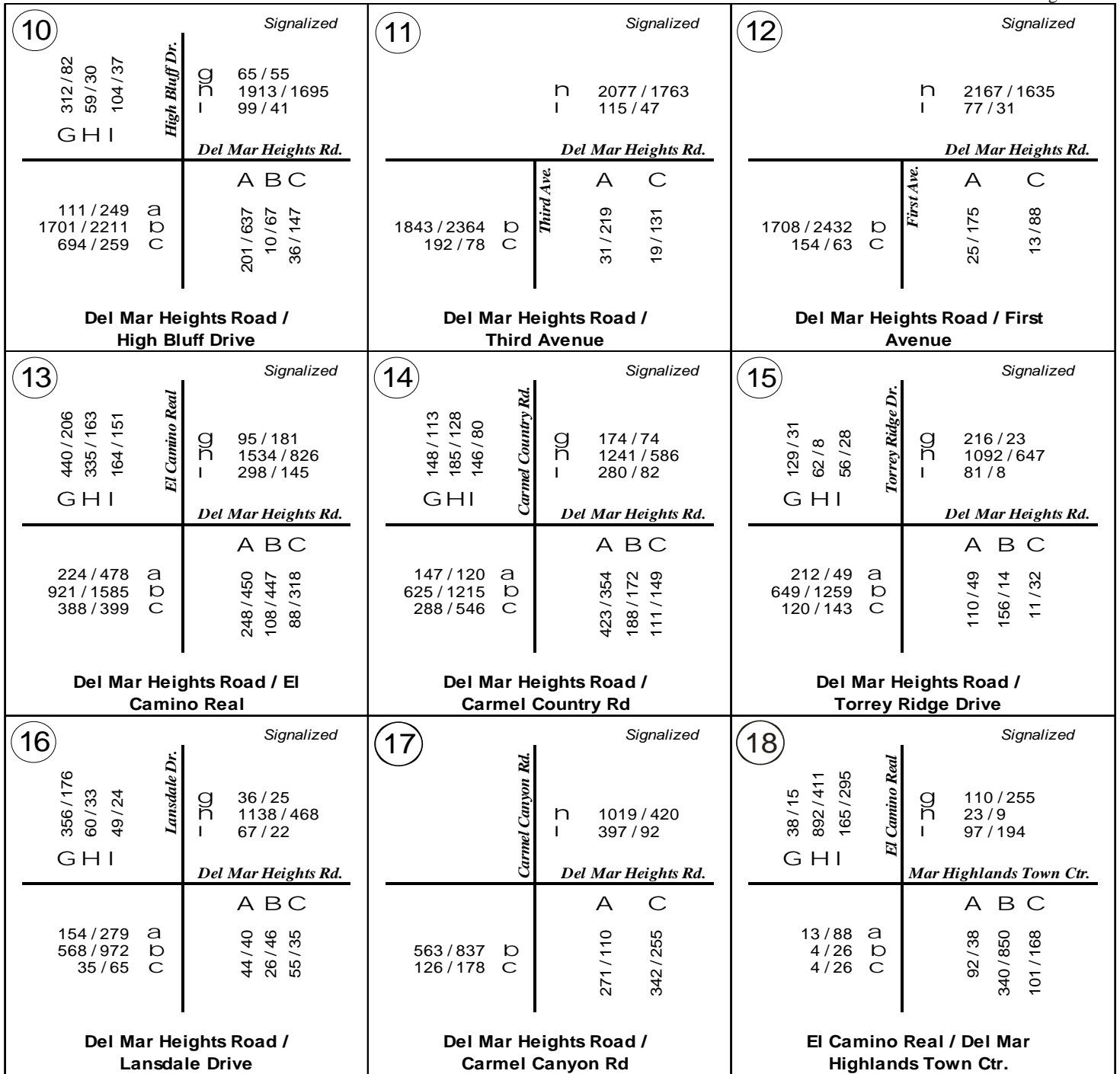


FIGURE 9-2

Near Term With Project AM/PM Peak Hour Traffic

(Phase 1)

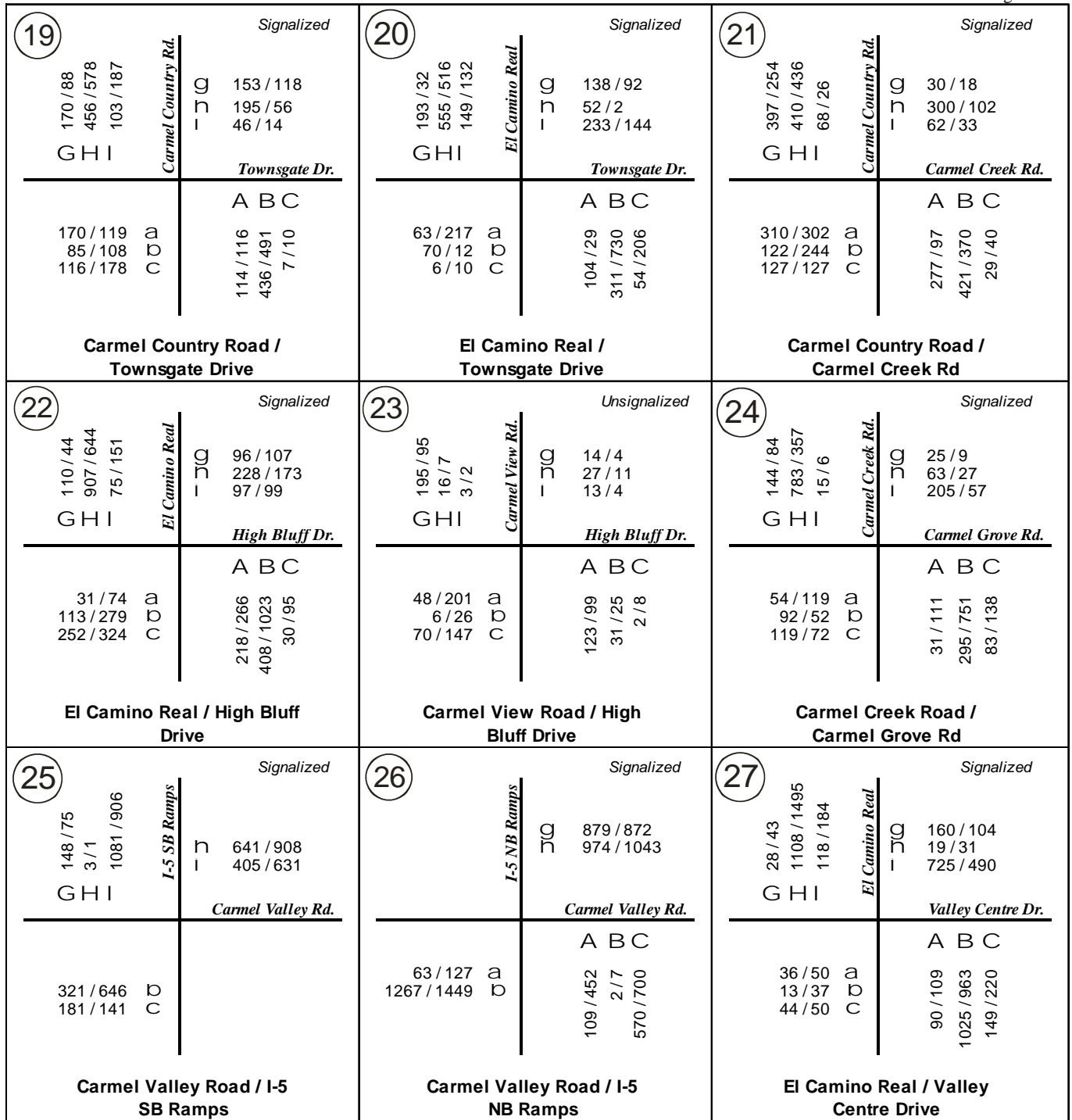


FIGURE 9-2
Near Term With Project AM/PM Peak Hour Traffic
(Phase 1)

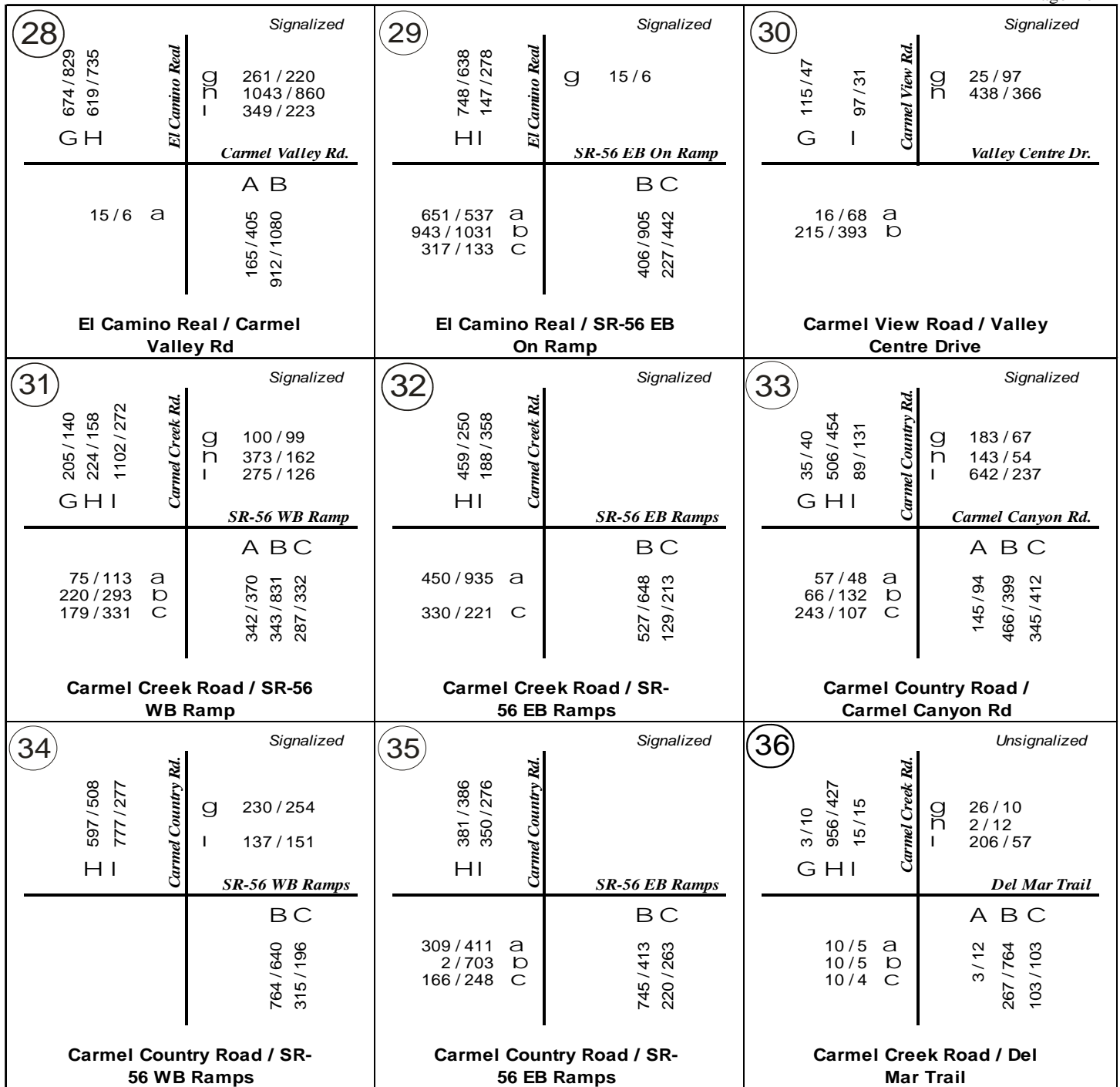


FIGURE 9-2

Near Term With Project AM/PM Peak Hour Traffic

(Phase 1)

TABLE 9-2

**Near Term With Project Intersection Levels Of Service
(Phase 1)**

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Via de la Valle	Signalized	31.9	C	40.6	D
2	El Camino Real / San Dieguito Road	Signalized	17.1	B	27.3	C
3	El Camino Real / Derby Downs Road	Signalized	4.3	A	5	A
4	El Camino Real / Half Mile Drive	Signalized	21.7	C	18.7	B
5	El Camino Real / Quarter Mile Drive	Signalized	21.8	C	15.5	B
6	Del Mar Heights Road / Mango Drive	Signalized	34.2	C	33.5	D
7	Del Mar Heights Road / Portofino Drive	Minor Street	9.6	A	9.3	A
8	Del Mar Heights Road / I-5 SB Ramps	Signalized	29.6	C	24.6	C
9	Del Mar Heights Road / I-5 NB Ramps	Signalized	49.2	D	43.5	D
10	Del Mar Heights Road / High Bluff Drive	Signalized	28.9	C	41.3	D
11	Del Mar Heights Road / Third Avenue	Signalized	5.9	A	10	A
12	Del Mar Heights Road / First Avenue	Signalized	4.2	A	10.7	B
13	Del Mar Heights Road / El Camino Real	Signalized	32.1	C	37	D
14	Del Mar Heights Road / Carmel Country Rd	Signalized	25.7	C	23.5	C
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized	24.8	C	16.4	B
16	Del Mar Heights Road / Lansdale Drive	Signalized	20.4	C	18.3	B
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized	13.9	B	10.3	B
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized	14	B	22.6	A
19	Carmel Country Road / Townsgate Drive	Signalized	27.2	C	27.2	C
20	Carmel Country Road / Townsgate Drive	Signalized	21.3	C	20.7	C
21	Carmel Country Road / Carmel Creek Rd	Signalized	60.4	E	26.1	C
22	El Camino Real / High Bluff Drive	Signalized	23.3	C	27.7	C
23	Carmel View Road / High Bluff Drive	All Way Stop	8.6	A	9.5	A
24	Carmel Creek Road / Carmel Grove Rd	Signalized	27.8	C	17.6	B
25	Carmel Valley Road / I-5 SB Ramps	Signalized	23.1	C	32.2	C
26	Carmel Valley Road / I-5 NB Ramps	Signalized	13.7	B	20.5	C
27	El Camino Real / Valley Centre Drive	Signalized	25	C	29.7	C
28	El Camino Real / Carmel Valley Rd	Signalized	16.4	B	19.6	B
29	El Camino Real / SR-56 EB On Ramp	Signalized	18.2	B	34	C
30	Carmel View Road / Valley Centre Drive	Signalized	7.4	A	8.3	A
31	Carmel Creek Road / SR-56 WB Ramp	Signalized	46.3	D	27.1	C
32	Carmel Creek Road / SR-56 EB Ramps	Signalized	12.6	B	27.5	C
33	Carmel Country Road / Carmel Canyon Rd	Signalized	35.7	D	25.9	C
34	Carmel Country Road / SR-56 WB Ramps	Signalized	16.3	B	11.4	B
35	Carmel Country Road / SR-56 EB Ramps	Signalized	14.1	B	11.9	B
36	Carmel Creek Road / Del Mar Trail	All Way Stop	50.8	F	22.6	C

Notes:

LOS = Level of Service

Orange indicates unacceptable level of service.

Intersection #36 reports the worst approach delay and level of service.

TABLE 9-3

**Near Term With Project Freeway Segment Levels Of Service
(Phase 1)**

Segment	Lanes	Dir.	Cap.	ADT	Peak Hour %	Dir. Split	Truck Factor	PHV	V/C	LOS
I-5										
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	NB	12,800	223,918	0.068	0.53	0.98	8,159	0.637	C
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	SB	12,800	223,871	0.067	0.55	0.98	8,420	0.658	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	NB	13,450	240,116	0.068	0.53	0.98	8,749	0.650	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	SB	13,450	240,069	0.067	0.55	0.98	9,029	0.671	C
Del Mar Heights Rd./ SR-56	6-GP+1-M	NB	15,780	244,113	0.068	0.53	0.98	8,895	0.564	B
Del Mar Heights Rd./ SR-56	6-GP+1-M	SB	15,780	244,055	0.067	0.55	0.98	9,179	0.582	B
SR-56/ Carmel Mountain Road	9-GP+1-M	NB	22,830	290,594	0.079	0.57	0.98	13,236	0.580	B
SR-56/ Carmel Mountain Road	8-GP+1-M	SB	20,480	290,594	0.080	0.55	0.98	12,999	0.635	C
Carmel Mountain Road/ I-805 Merge	10	NB	23,500	290,396	0.079	0.57	0.98	13,227	0.563	B
Carmel Mountain Road/ I-805 Merge	10	SB	23,500	290,396	0.080	0.55	0.98	12,990	0.553	B
SR-56										
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	EB	6,500	84,346	0.093	0.69	0.98	5,512	0.848	D
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	WB	6,500	84,346	0.094	0.70	0.98	5,653	0.870	D
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	EB	6,500	78,579	0.093	0.69	0.98	5,135	0.790	D
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	WB	6,500	78,579	0.094	0.70	0.98	5,266	0.810	D

Legend:

Dir.= Direction
Cap. = Capacity
ADT= Average Daily Traffic
V/C= Volume to Capacity Ratio
LOS= Level of Service
PHV= Peak Hour Volume
#-GP= # of General Purpose Lanes
#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1680 vphpl taken from Caltrans Guide, December 2002)
HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 vphpl

Note:

Capacity for LOS "E" roadway is 2,350 vphpl.
Taken from Transition between LOS"C" and LOS "D" criteria for Basic Freeway Segments @ 65 mi/hr in "Caltrans Guide for the Preparation of Traffic Impact Studies", December 2002
AX = Auxiliary Lane with LOS "E" capacity of 1,800 vphpl
Peak Hour % and Dir. Split taken from Caltrans internet posted Traffic Volumes

TABLE 9-4

**Near Term With Project Ramp Meter Analysis
(Phase 1)**

Most Restrictive Meter Rate

Location		Demand (Veh/Hr)	Meter Rate (Veh/Hr)	Excess Demand (Veh/Hr)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	437	368	68.5	11.17	1,987
	PM	389	368	21	3.42	609
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	371	499	0	0	0
	PM	216	499	0	0	0
Del Mar Heights Rd. / I-5 NB on Ramp	AM	N/A	Meter is not turned on			
	PM	606	593	12.5	1	363

NOTE:

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

Delay = (Demand - Meter Rate) / Meter Rate * 60 minutes/hour

Queue = Excess Demand * 29 feet/vehicle

10.0 NEAR TERM WITH PROJECT PHASE 1 & 2

This section of the report evaluates the Near Term with Project Phase 1 & 2 traffic conditions by adding the “cumulative projects” plus the One Paseo project traffic in Phase 1 & 2 to existing volumes and evaluating project traffic impacts. This scenario differs from Existing with Project (Phase 1&2) analysis insofar as it takes into account traffic anticipated from other approved or anticipated projects not yet completed or constructed, but which could potentially be implemented between the time of circulation of the NOP for the project and the anticipated date of certification of the EIR.

10.1 STREET SEGMENTS

Figure 10-1 shows average daily traffic volumes with project (Phase 1 & 2) traffic added to the Near Term traffic volumes.

Table 10-1 shows street segment levels of service with the Near Term plus One Paseo project traffic. The following street segments are projected to operate at an unacceptable level of service:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F
Via de la Valle	San Andres Dr. to El Camino Real	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F

El Camino Real between Via de la Valle and San Dieguito Road is a City CIP (City Improvement Project) and is not fully funded to be constructed as a four lane major.



FIGURE 10-1
Near Term With Project Average Daily Traffic
(Phase 1 & 2)

TABLE 10-1
Near Term With Project Street Segment Levels of Service
(Phase 1 & 2)

Road	Segment	Jurisd.	Functional Class.	Capacity at LOS E	Volume	V/C	LOS
Del Mar Heights Rd.	Mango Drive to Portofino Drive	SD	5-M	45,000	23,557	0.52	B
	Portofino Drive to I-5 Southbound Ramps	SD	5-PA	50,000	39,306	0.79	C
	I-5 Southbound Ramps and I-5 Northbound Ramps	SD	5-PA	50,000	44,953	0.90	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	61,721	1.03	F
	High Bluff Drive to Third Avenue	SD	PA	60,000	48,664	0.81	C
	Thirth Avenue to First Avenue	SD	PA	60,000	47,951	0.80	C
	First Avenue to El Camino Real	SD	PA	60,000	47,951	0.80	C
	El Camino Real to Carmel Country Road	SD	PA	60,000	38,463	0.64	C
	Carmel Country Road to Torrey Ridge Road	SD	PA	60,000	24,623	0.41	A
	Torrey Ridge Road to Lansdale Drive	SD	PA	60,000	21,246	0.35	A
	Lansdale Drive to Carmel Canyon Road	SD	PA	60,000	16,534	0.28	A
El Camino Real	Via de la Valle to San Dieguito Road	SD	2-Ca	15,000	16,770	1.12	F
	San Dieguito Road to Derby Downs Road	SD	4-M	40,000	15,045	0.38	B
	Derby Downs Road to Half Mile Drive	SD	4-M	40,000	16,505	0.41	B
	Half Mile Drive to Quarter Mile Drive	SD	4-M	40,000	14,812	0.37	A
	Quarter Mile Drive to Del Mar Heights Road	SD	4-M	40,000	16,441	0.41	B
	Del Mar Heights Road to Townsgate Drive	SD	6-M	50,000	19,686	0.39	A
	Townsgate Drive to High Bluff Drive	SD	6-M	50,000	18,977	0.38	A
	High Bluff Drive to Valley Centre Drive	SD	6-M	50,000	22,638	0.45	B
Valley Centre Drive to Carmel Valley Road	SD	5-M	45,000	31,199	0.69	C	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	SD	4-M	40,000	18,191	0.45	B
	Townsgate Drive to Carmel Creek Road	SD	4-M	40,000	15,719	0.39	B
	Carmel Creek Road to Carmel Canyon Road	SD	4-M	40,000	14,422	0.36	A
	Carmel Canyon Road to SR-56 Westbound Ramps	SD	4-M	40,000	21,882	0.55	C
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	SD	4-M	40,000	12,947	0.32	A
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	SD	4-M	40,000	12,077	0.30	A
	Carmel Grove Road to SR-56 Westbound Ramps	SD	4-M	40,000	16,467	0.41	B
Valley Centre Drive	Carmel View Road to Carmel Creek Road	SD	4-C	30,000	12,004	0.40	B
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	SD	PA	60,000	46,324	0.77	C
High Bluff Drive	Del Mar Heights Road to El Camino Real	SD	2-Ca	15,000	10,672	0.71	D
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	2-Cb	10,000	27,088	2.71	F

Legend:

- SD= City of San Diego
- Cap.= Capacity
- Class.= Classification
- LOS= Level of Service
- V/C= Volume to Capacity Ratio
- PA = 6 lane Primary Arterial
- 6-M = 6 lane Major
- 4-M=4 lane Major
- 2-Ca=2 lane collector
- 2-Cb = 2 lane Collector with no fronting property
- 5-M = 5 lane Major with LOS E capacity of 45,000 ADT
- 5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

10.2 INTERSECTIONS

Figure 10-2 shows Near Term conditions plus the One Paseo project (Phase 1 & 2) combined traffic volumes during AM/PM peak hours at study area intersections.

Table 10-2 includes study area intersection levels of service with the One Paseo project traffic added to Near Term conditions. As shown, all intersections are projected to operate at acceptable levels of service except for four intersections.

Appendix I includes the Near Term with Project (Phase 1 & 2) Synchro worksheets.

10.3 FREEWAY SEGMENTS

Table 10-3 shows the resulting levels of service for the I-5 and SR-56 freeway segments analyzed. As shown in **Table 10-3**, all freeway segments are projected to operate at acceptable levels of service.

10.4 RAMP METERS

Table 10-4 shows the resulting delays and queues for the I-5 / Del Mar Heights Rd northbound and southbound ramps.

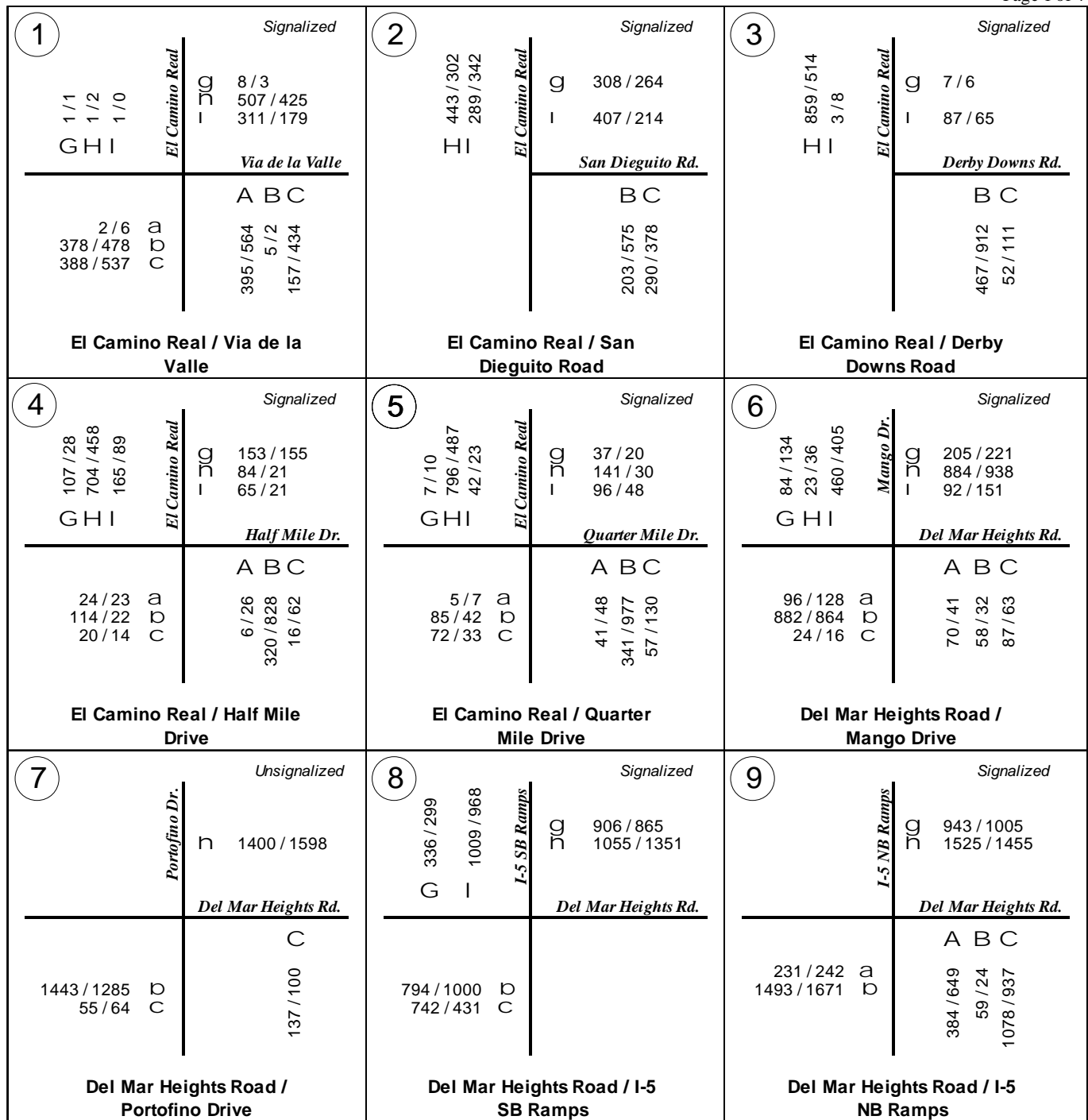


FIGURE 10-2
Near Term With Project AM/PM Peak Hour Traffic
(Phase 1 & 2)

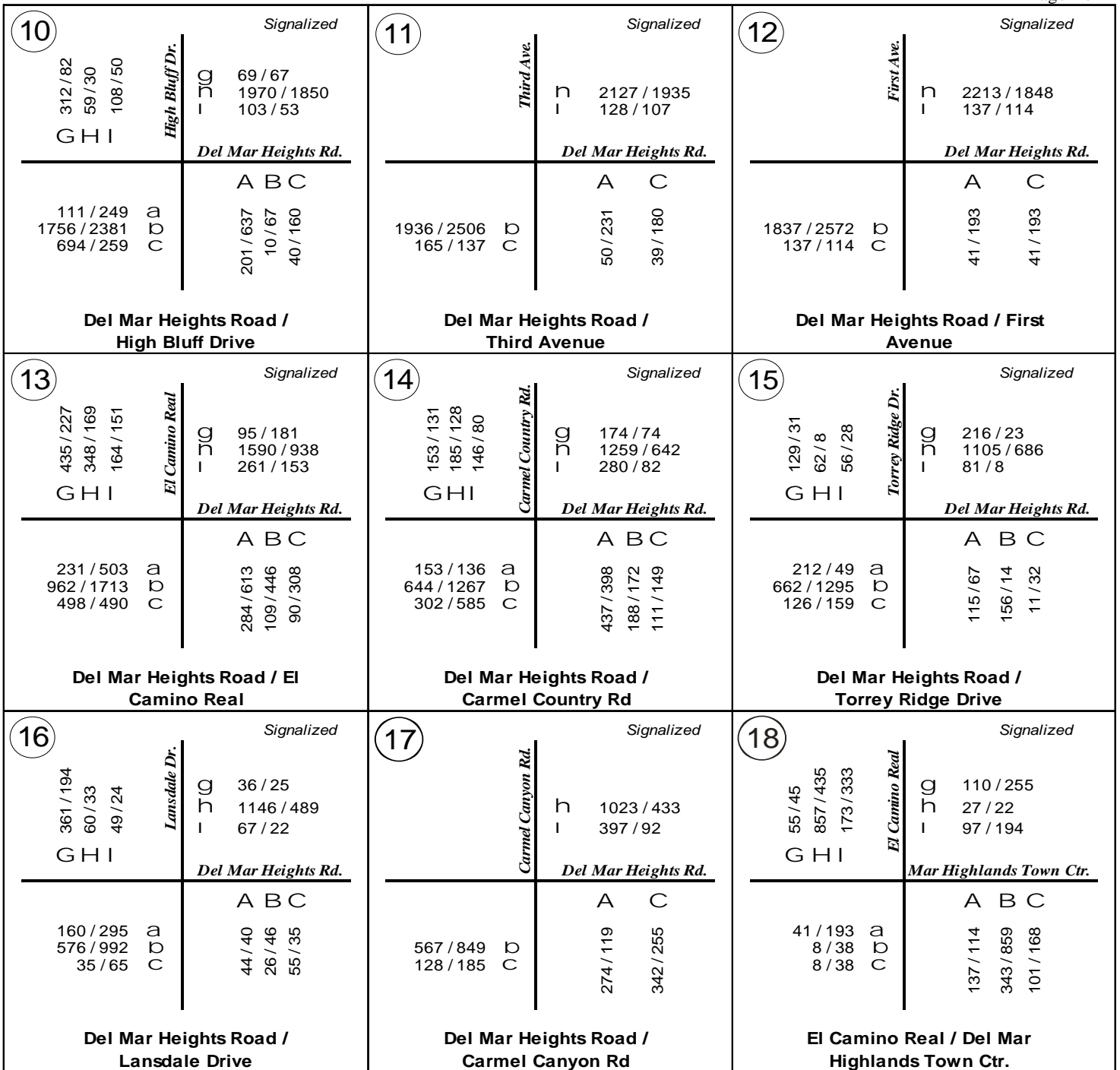


FIGURE 10-2

Near Term With Project AM/PM Peak Hour Traffic

(Phase 1 & 2)

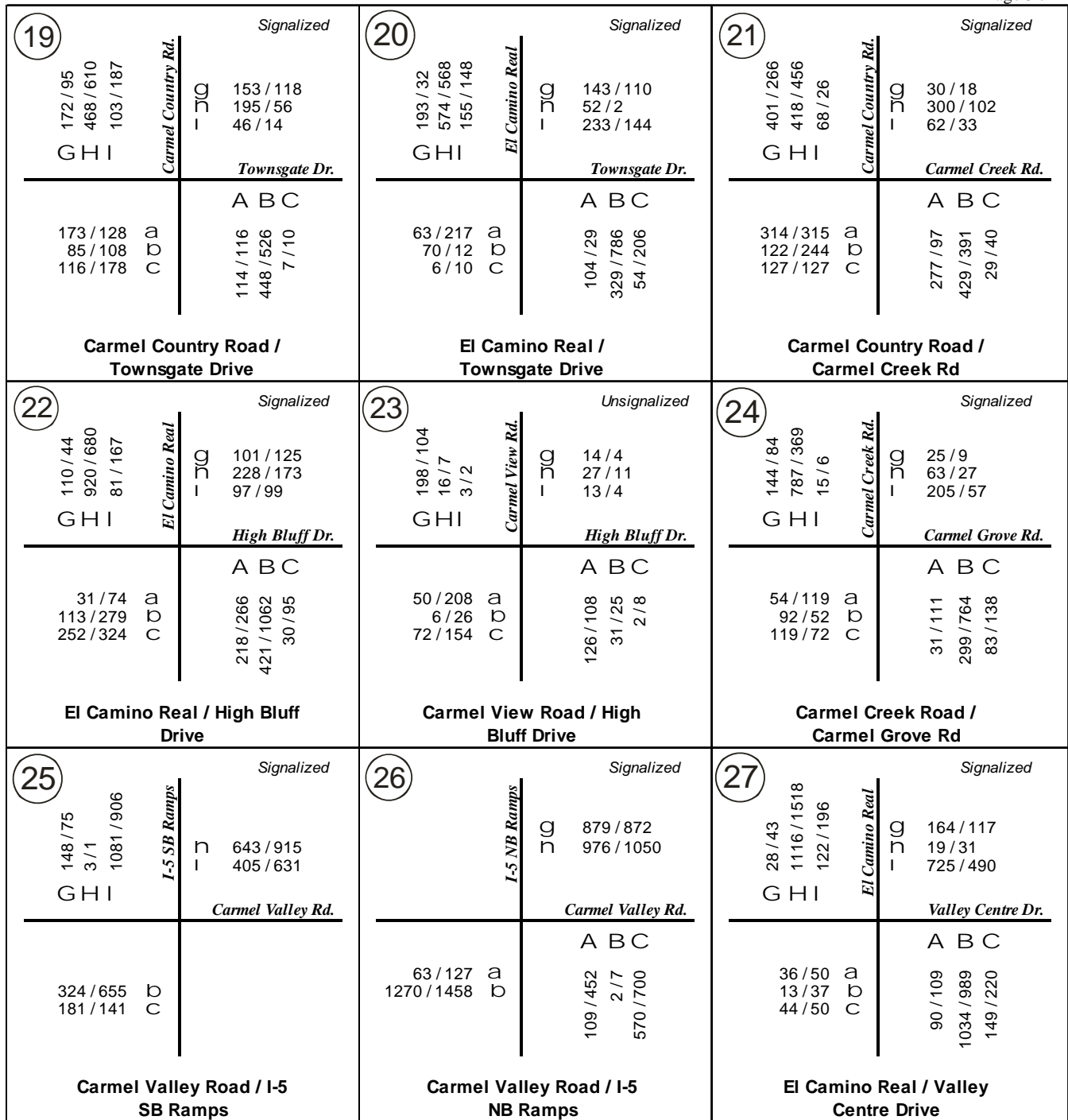


FIGURE 10-2

Near Term With Project AM/PM Peak Hour Traffic

(Phase 1 & 2)

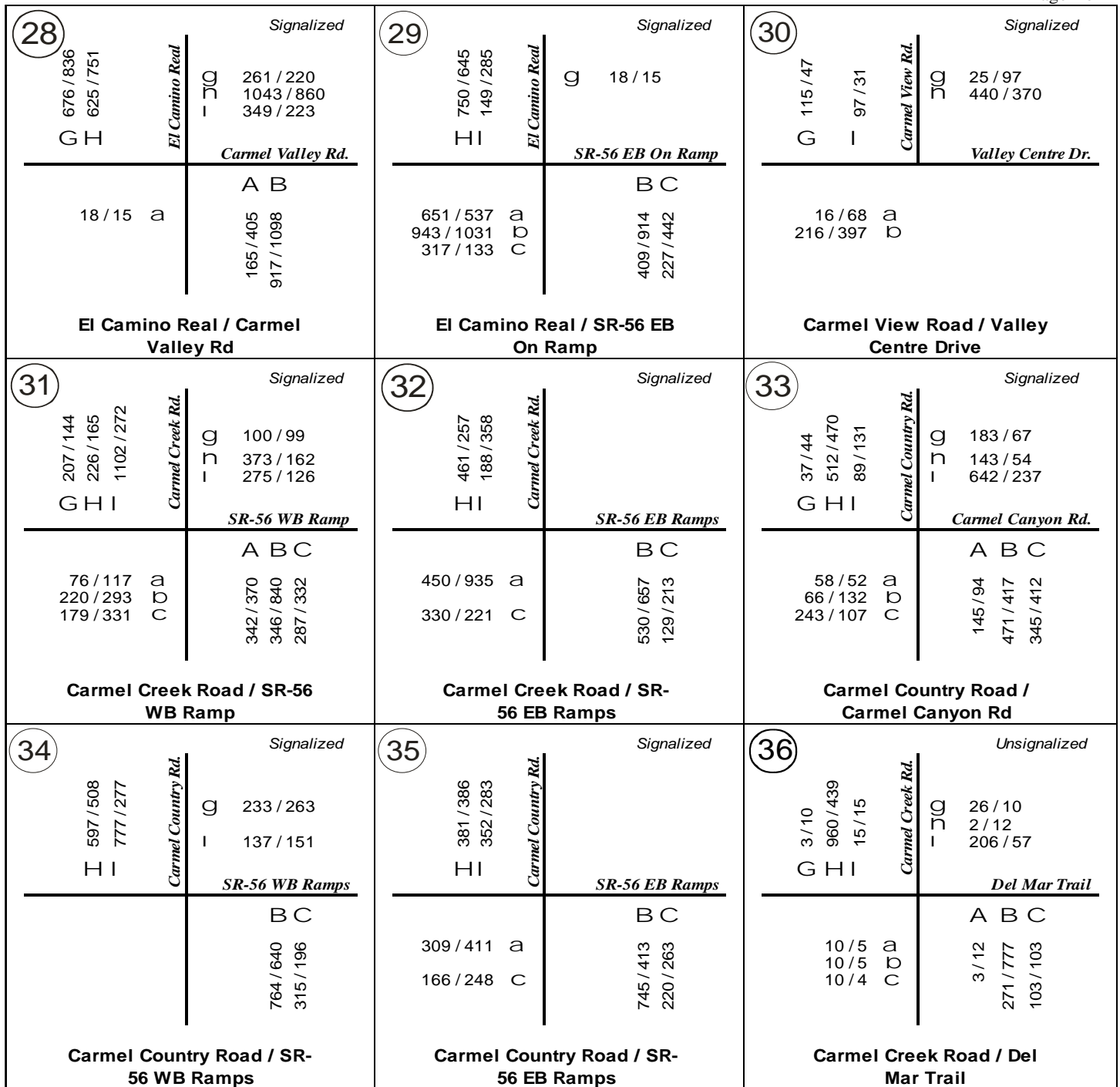


FIGURE 10-2

Near Term With Project AM/PM Peak Hour Traffic

(Phase 1 & 2)

TABLE 10-2

**Near Term With Project Intersection Levels Of Service
(Phase 1 & 2)**

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Via de la Valle	Signalized	32.2	C	42.5	D
2	El Camino Real / San Dieguito Road	Signalized	17.3	B	26.9	C
3	El Camino Real / Derby Downs Road	Signalized	4.3	A	5	A
4	El Camino Real / Half Mile Drive	Signalized	21.8	C	14.2	B
5	El Camino Real / Quarter Mile Drive	Signalized	20.6	C	16.4	B
6	Del Mar Heights Road / Mango Drive	Signalized	34.5	C	34.3	C
7	Del Mar Heights Road / Portofino Drive	Minor Street	9.6	A	9.4	A
8	Del Mar Heights Road / I-5 SB Ramps	Signalized	28.7	C	27.8	C
9	Del Mar Heights Road / I-5 NB Ramps	Signalized	49.8	D	50.5	D
10	Del Mar Heights Road / High Bluff Drive	Signalized	31.3	C	56.2	E
11	Del Mar Heights Road / Third Avenue	Signalized	6.5	A	13.5	B
12	Del Mar Heights Road / First Avenue	Signalized	6	A	15.6	B
13	Del Mar Heights Road / El Camino Real	Signalized	34.5	C	59.1	E
14	Del Mar Heights Road / Carmel Country Rd	Signalized	26.4	C	25.6	C
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized	26	C	11.9	B
16	Del Mar Heights Road / Lansdale Drive	Signalized	20.4	C	18.4	B
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized	14	B	10.2	B
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized	14.3	B	27.5	C
19	Carmel Country Road / Townsgate Drive	Signalized	27.4	C	22.6	C
20	Carmel Country Road / Townsgate Drive	Signalized	21.3	C	20.9	C
21	Carmel Country Road / Carmel Creek Rd	Signalized	60.4	E	27.4	C
22	El Camino Real / High Bluff Drive	Signalized	21.6	C	29	C
23	Carmel View Road / High Bluff Drive	All Way Stop	8.7	A	9.7	A
24	Carmel Creek Road / Carmel Grove Rd	Signalized	27.8	C	17.7	B
25	Carmel Valley Road / I-5 SB Ramps	Signalized	22.8	C	32.6	C
26	Carmel Valley Road / I-5 NB Ramps	Signalized	14.1	B	20.6	C
27	El Camino Real / Valley Centre Drive	Signalized	32.7	C	29.8	C
28	El Camino Real / Carmel Valley Rd	Signalized	15	B	19.8	B
29	El Camino Real / SR-56 EB On Ramp	Signalized	18.6	B	35.1	D
30	Carmel View Road / Valley Centre Drive	Signalized	7.4	A	8.3	A
31	Carmel Creek Road / SR-56 WB Ramp	Signalized	46.6	D	30.6	C
32	Carmel Creek Road / SR-56 EB Ramps	Signalized	12.6	B	27.6	C
33	Carmel Country Road / Carmel Canyon Rd	Signalized	35.9	D	25.6	C
34	Carmel Country Road / SR-56 WB Ramps	Signalized	16.2	B	12.3	B
35	Carmel Country Road / SR-56 EB Ramps	Signalized	14.3	B	12.1	B
36	Carmel Creek Road / Del Mar Trail	All Way Stop	52.0	F	23.8	C

Notes:

LOS = Level of Service

Orange indicates unacceptable level of service.

Intersection #36 reports the worst approach delay and level of service

TABLE 10-3

**Near Term With Project Freeway Segment Levels Of Service
(Phase 1 & 2)**

Segment	Lanes	Dir.	Cap.	ADT	Peak Hour %	Dir. Split	Truck Factor	PHV	V/C	LOS
I-5										
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	NB	12,800	224,473	0.068	0.53	0.98	8,179	0.639	C
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	SB	12,800	224,426	0.067	0.55	0.98	8,441	0.659	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	NB	13,450	240,829	0.068	0.53	0.98	8,775	0.652	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	SB	13,450	240,782	0.067	0.55	0.98	9,056	0.673	C
Del Mar Heights Rd./ SR-56	6-GP+1-M	NB	15,780	245,539	0.068	0.53	0.98	8,947	0.567	B
Del Mar Heights Rd./ SR-56	6-GP+1-M	SB	15,780	245,481	0.067	0.55	0.98	9,233	0.585	B
SR-56/ Carmel Mountain Road	9-GP+1-M	NB	22,830	291,386	0.079	0.57	0.98	13,272	0.581	B
SR-56/ Carmel Mountain Road	8-GP+1-M	SB	20,480	291,386	0.080	0.55	0.98	13,034	0.636	C
Carmel Mountain Road/ I-805 Merge	10	NB	23,500	291,030	0.079	0.57	0.98	13,256	0.564	B
Carmel Mountain Road/ I-805 Merge	10	SB	23,500	291,030	0.080	0.55	0.98	13,018	0.554	B
SR-56										
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	EB	6,500	84,504	0.093	0.69	0.98	5,523	0.850	D
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	WB	6,500	84,504	0.094	0.70	0.98	5,663	0.871	D
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	EB	6,500	78,737	0.093	0.69	0.98	5,146	0.792	D
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	WB	6,500	78,737	0.094	0.70	0.98	5,277	0.812	D

Legend:

*Caltrans 2008 Count Data

Dir.= Direction

Cap. = Capacity

ADT= Average Daily Traffic

V/C= Volume to Capacity Ratio

LOS= Level of Service

PHV= Peak Hour Volume

#-GP= # of General Purpose Lanes

#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1680 vphpl taken from Caltrans Guide, December 2002)

HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 vphpl

Note:

Capacity for LOS "E" roadway is 2,350 vphpl.

Taken from Transition between LOS"C" and LOS "D" criteria for Basic Freeway Segments @ 65 mi/hr in "Caltrans Guide for the Preparation of Traffic Impact Studies", December 2002

AX = Auxiliary Lane with LOS "E" capacity of 1,800 vphpl

Peak Hour % and Dir. Split taken from Caltrans internet posted Traffic Volumes

TABLE 10-4

**Near Term With Project Ramp Meter Analysis
(Phase 1 & 2)**

Most Restrictive Meter Rate

Location		Demand (Veh/Hr)	Meter Rate (Veh/Hr)	Excess Demand (Veh/Hr)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	453	368	85.0	13.86	2,465
	PM	433	368	64.5	10.52	1,871
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	371	499	0	0	0
	PM	216	499	0	0	0
Del Mar Heights Rd. / I-5 NB on Ramp	AM	N/A	Meter is not turned on			
	PM	624	593	31	3.14	899

NOTE:

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

Delay = (Demand - Meter Rate) / Meter Rate * 60 minutes/hour

Queue = Excess Demand * 29 feet/vehicle

11.0 NEAR TERM CONDITIONS PLUS PROJECT BUILDOUT

This section of the report evaluates the Near Term with Project Build-out traffic conditions by adding certain “cumulative projects” plus the One Paseo project traffic at Build-out to existing volumes and evaluating project traffic impacts. This scenario differs from Existing with Project (Build-out) analysis insofar as it takes into account traffic anticipated from other approved or anticipated projects that could potentially be completed or constructed between the time of circulation of the NOP and the anticipated date of certification of the EIR.

11.1 STREET SEGMENTS

Figure 11-1 shows average daily traffic volumes with project (Build-out) traffic added to Near Term traffic volumes.

Table 11-1 shows street segment levels of service with the One Paseo project traffic added to Near Term conditions. The following street segments are projected to operate at an unacceptable level of service:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Del Mar Heights Rd.	I-5 NB Ramps to I-5 SB Ramps	E
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F
Via de la Valle	San Andres Dr. to El Camino Real	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F

El Camino Real between Via de la Valle and San Dieguito Road is a City CIP (City Improvement Project) and is not fully funded to be constructed as a four lane major. If the widening is implemented before project traffic is added, then there is no significant impact.

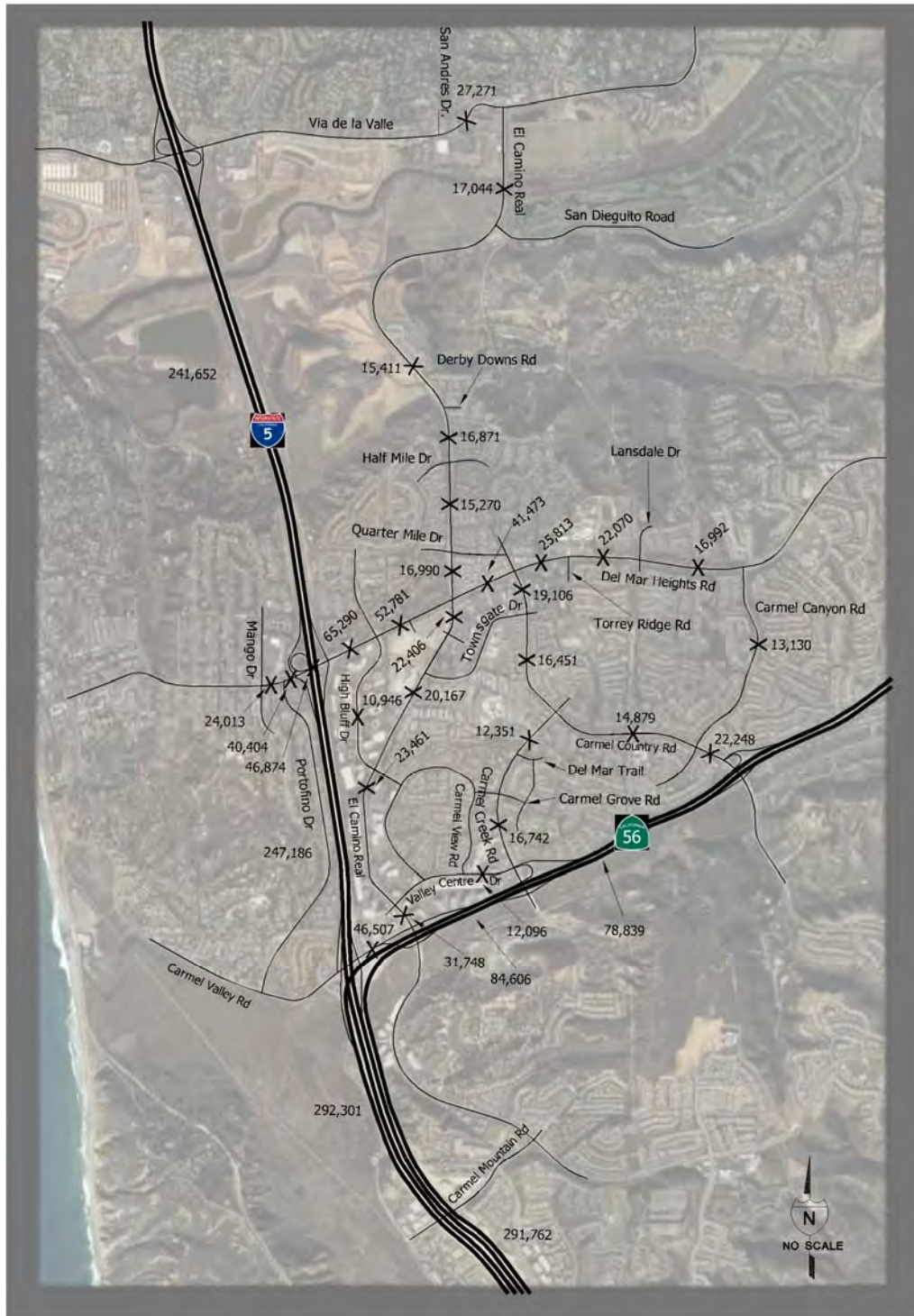


FIGURE 11-1

**Near Term With Project Average Daily Traffic
(Build-out)**

TABLE 11-1
Near Term With Project Street Segment Levels of Service
(Build-out)

Road	Segment	Jurisd.	Functional Class.	Capacity at LOS E	Volume	V/C	LOS
Del Mar Heights Rd.	Mango Drive to Portofino Drive	SD	5-M	45,000	24,013	0.53	B
	Portofino Drive to I-5 Southbound Ramps	SD	5-PA	50,000	40,404	0.81	D
	I-5 Southbound Ramps and I-5 Northbound Ramps	SD	5-PA	50,000	46,874	0.94	E
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	65,290	1.09	F
	High Bluff Drive to Third Avenue	SD	PA	60,000	52,781	0.88	D
	Thirth Avenue to First Avenue	SD	PA	60,000	51,702	0.86	D
	First Avenue to El Camino Real	SD	PA	60,000	51,702	0.86	D
	El Camino Real to Carmel Country Road	SD	PA	60,000	41,473	0.69	C
	Carmel Country Road to Torrey Ridge Road	SD	PA	60,000	25,813	0.43	B
	Torrey Ridge Road to Lansdale Drive	SD	PA	60,000	22,070	0.37	A
Lansdale Drive to Carmel Canyon Road	SD	PA	60,000	16,992	0.28	A	
El Camino Real	Via de la Valle to San Dieguito Road	SD	2-Ca	15,000	17,044	1.14	F
	San Dieguito Road to Derby Downs Road	SD	4-M	40,000	15,411	0.39	B
	Derby Downs Road to Half Mile Drive	SD	4-M	40,000	16,871	0.42	B
	Half Mile Drive to Quarter Mile Drive	SD	4-M	40,000	15,270	0.38	B
	Quarter Mile Drive to Del Mar Heights Road	SD	4-M	40,000	16,990	0.42	B
	Del Mar Heights Road to Townsgate Drive	SD	6-M	50,000	22,406	0.45	B
	Townsgate Drive to High Bluff Drive	SD	6-M	50,000	20,167	0.40	B
	High Bluff Drive to Valley Centre Drive	SD	6-M	50,000	23,461	0.47	B
Valley Centre Drive to Carmel Valley Road	SD	5-M	45,000	31,748	0.71	C	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	SD	4-M	40,000	19,106	0.48	B
	Townsgate Drive to Carmel Creek Road	SD	4-M	40,000	16,451	0.41	B
	Carmel Creek Road to Carmel Canyon Road	SD	4-M	40,000	14,879	0.37	A
	Carmel Canyon Road to SR-56 Westbound Ramps	SD	4-M	40,000	22,248	0.56	C
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	SD	4-M	40,000	13,130	0.33	A
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	SD	4-M	40,000	12,351	0.31	A
	Carmel Grove Road to SR-56 Westbound Ramps	SD	4-M	40,000	16,742	0.42	B
Valley Centre Drive	Carmel View Road to Carmel Creek Road	SD	4-C	30,000	12,096	0.40	B
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	SD	PA	60,000	46,507	0.78	C
High Bluff Drive	Del Mar Heights Road to El Camino Real	SD	2-Ca	15,000	10,946	0.73	D
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	2-Cb	10,000	27,271	2.73	F

Legend:

- SD= City of San Diego
- Cap.= Capacity
- Class.= Classification
- LOS= Level of Service
- V/C= Volume to Capacity Ratio
- PA = 6 lane Primary Arterial
- 6-M = 6 lane Major
- 4-M=4 lane Major
- 2-Ca=2 lane collector
- 2-Cb = 2 lane Collector with no fronting property
- 5-M = 5 lane Major with LOS E capacity of 45,000 ADT
- 5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

11.2 INTERSECTIONS

Figure 11-2 shows Near Term conditions plus the One Paseo project (Build-out) combined traffic volumes during AM/PM peak hours at study area intersections.

Table 11-2 includes study area intersection levels of service with the One Paseo project traffic added to Near Term conditions. As shown, all intersections are projected to operate at acceptable levels of service except for five intersections.

Appendix J includes the Near Term with Project (Build-out) Synchro worksheets.

11.3 FREEWAY SEGMENTS

Table 11-3 shows the resulting levels of service for the I-5 and SR-56 freeway segments analyzed. As shown in **Table 11-3**, all freeway segments are projected to operate at acceptable levels of service.

11.4 RAMP METERS

Table 11-4 shows the resulting delays and queues for the I-5 / Del Mar Heights Rd northbound and southbound ramps.

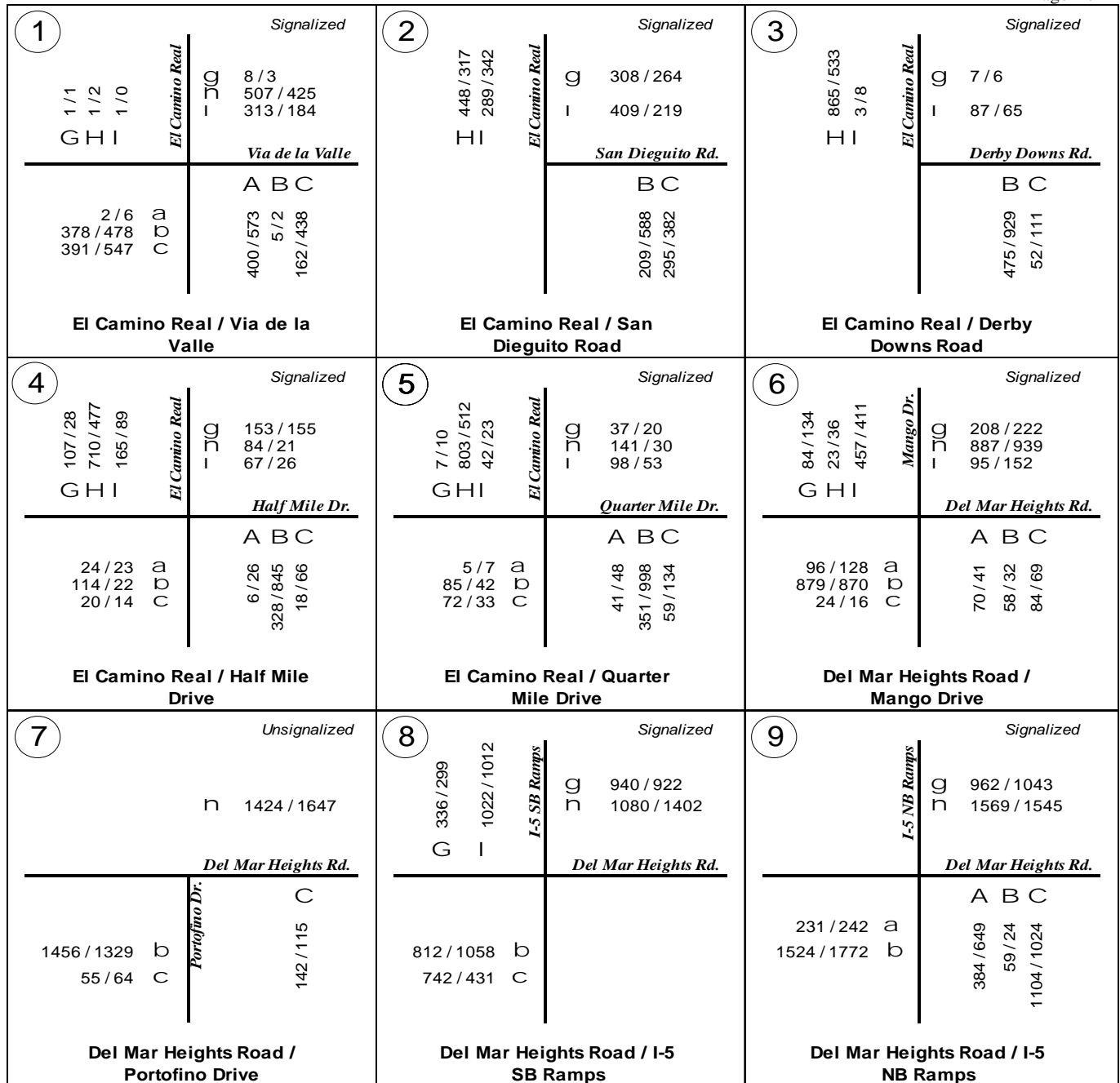


FIGURE 11-2
Near Term With Project AM/PM Peak Hour Traffic
(Build-out)

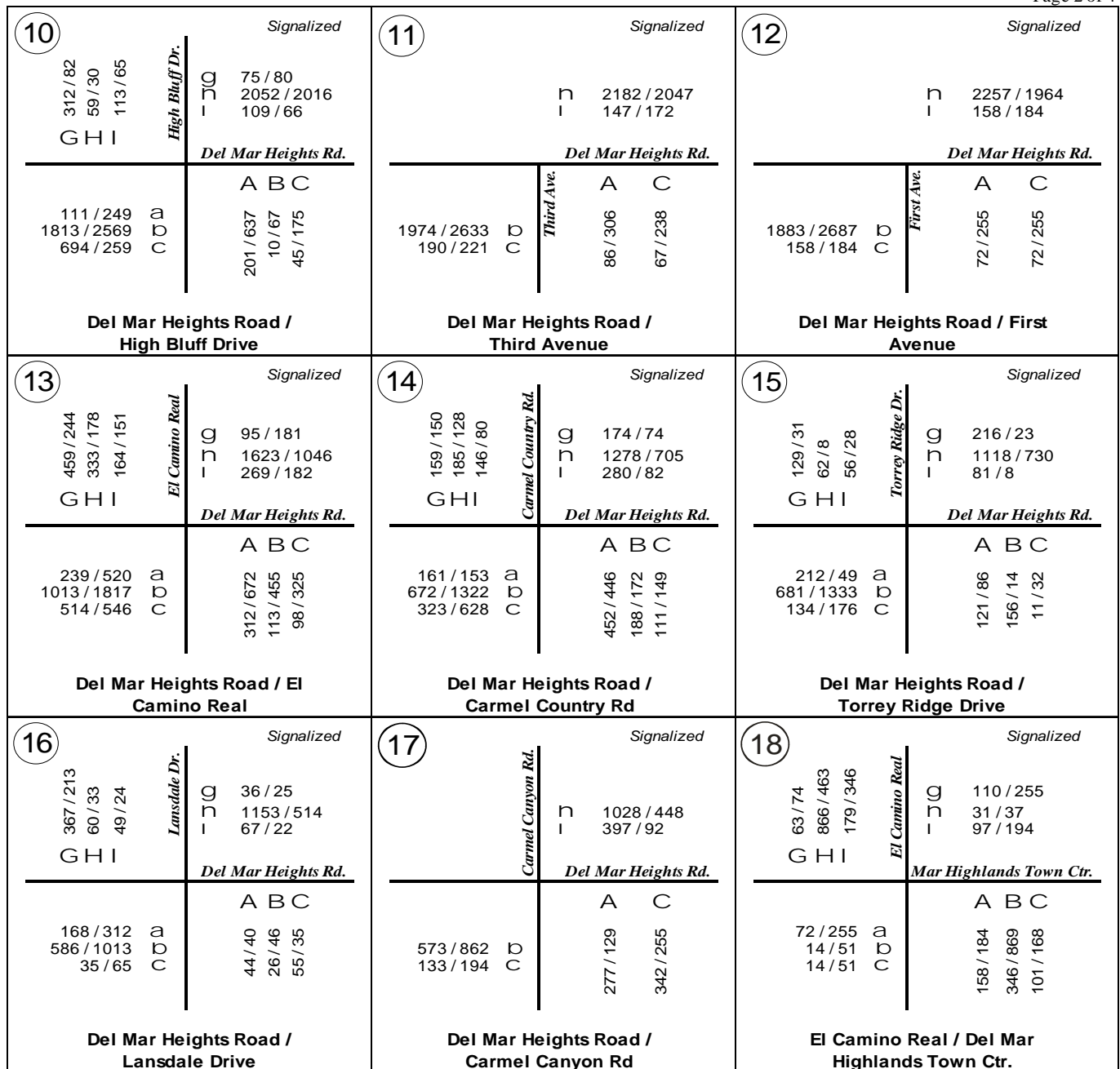


FIGURE 11-2

Near Term With Project AM/PM Peak Hour Traffic

(Build-out)

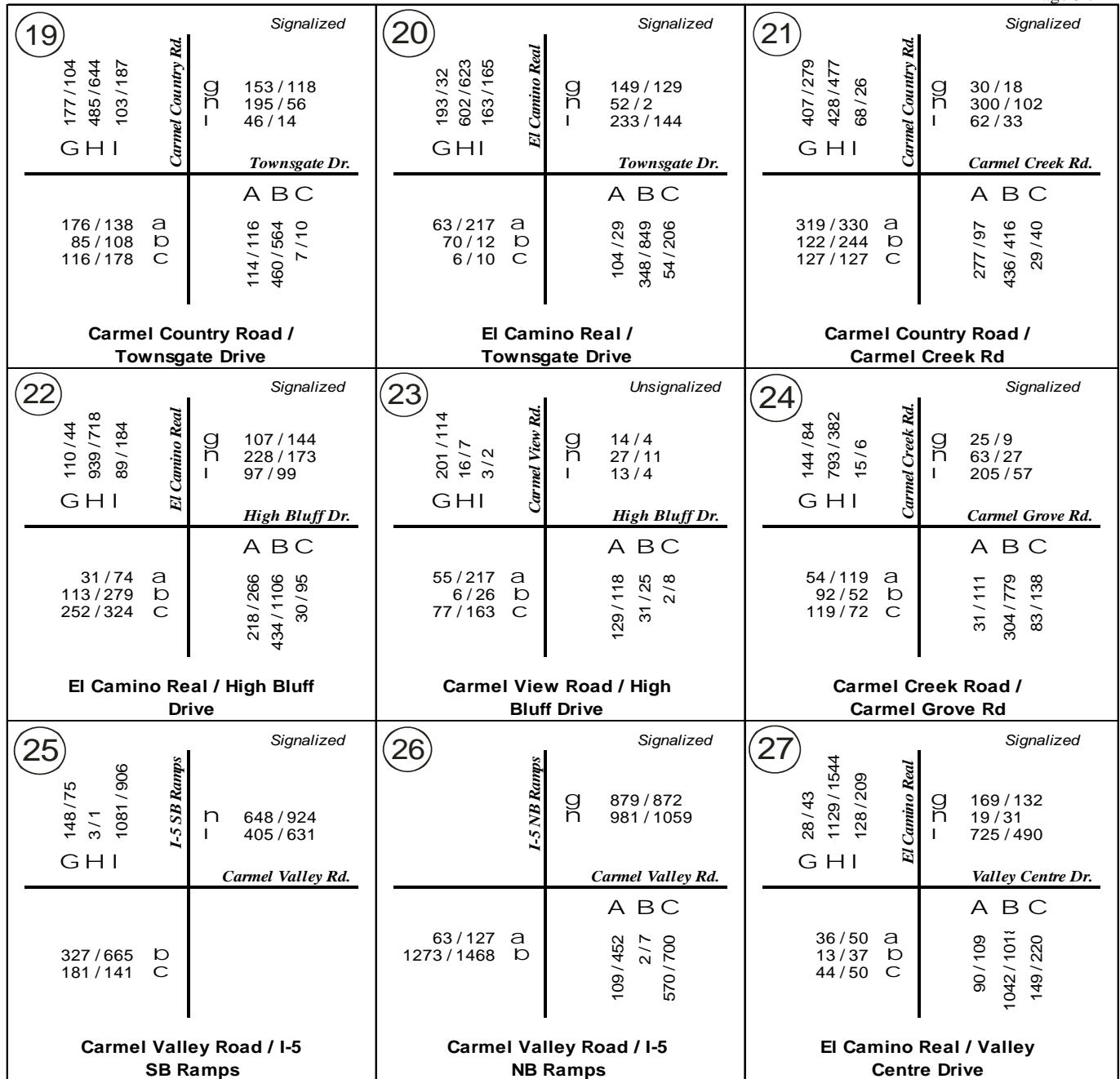


FIGURE 11-2

Near Term With Project AM/PM Peak Hour Traffic
(Build-out)

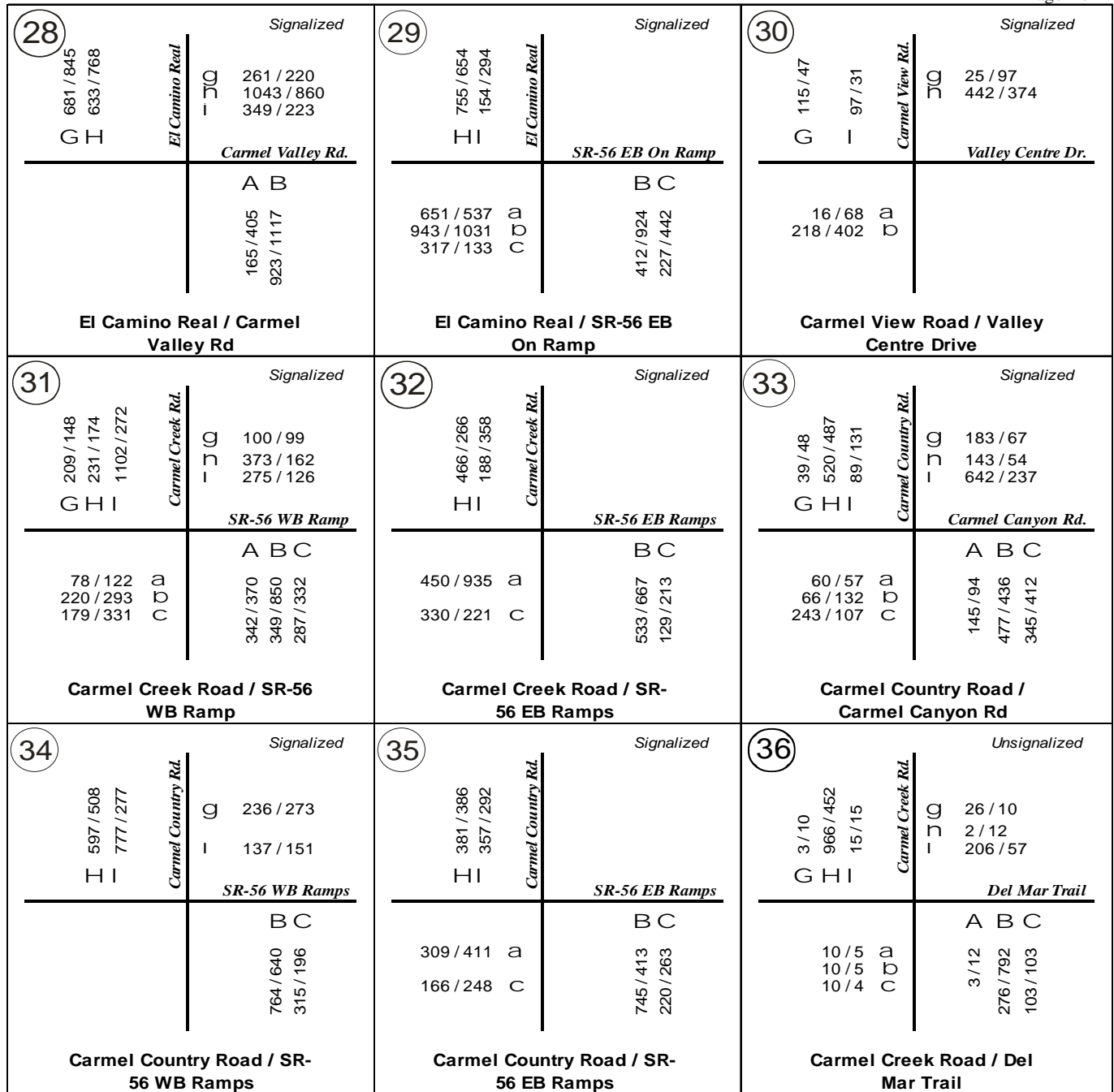


FIGURE 11-2
Near Term With Project AM/PM Peak Hour Traffic
(Build-out)

TABLE 11-2

**Near Term With Project Intersection Levels Of Service
(Build-out)**

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Via de la Valle	Signalized	32.5	C	45.3	D
2	El Camino Real / San Dieguito Road	Signalized	17.4	B	27.6	C
3	El Camino Real / Derby Downs Road	Signalized	4.3	A	5	A
4	El Camino Real / Half Mile Drive	Signalized	22.4	C	14.2	B
5	El Camino Real / Quarter Mile Drive	Signalized	20.6	C	17.9	B
6	Del Mar Heights Road / Mango Drive	Signalized	35.1	D	35.9	D
7	Del Mar Heights Road / Portofino Drive	Minor Street	9.6	A	9.4	A
8	Del Mar Heights Road / I-5 SB Ramps	Signalized	29.9	C	28.5	C
9	Del Mar Heights Road / I-5 NB Ramps	Signalized	49.2	D	56.1	E
10	Del Mar Heights Road / High Bluff Drive	Signalized	34.2	C	57	E
11	Del Mar Heights Road / Third Avenue	Signalized	8.5	A	21.4	C
12	Del Mar Heights Road / First Avenue	Signalized	7.9	A	25.3	C
13	Del Mar Heights Road / El Camino Real	Signalized	37.4	D	62.9	E
14	Del Mar Heights Road / Carmel Country Rd	Signalized	27.3	C	28.2	C
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized	26.3	C	12	B
16	Del Mar Heights Road / Lansdale Drive	Signalized	20.8	C	19.7	B
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized	14	B	10.7	B
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized	15.6	B	30.8	C
19	Carmel Country Road / Townsgate Drive	Signalized	27.7	C	23.2	C
20	Carmel Country Road / Townsgate Drive	Signalized	21.6	C	22.3	C
21	Carmel Country Road / Carmel Creek Rd	Signalized	60.4	E	28.6	C
22	El Camino Real / High Bluff Drive	Signalized	22.2	C	30.6	C
23	Carmel View Road / High Bluff Drive	All-Way Stop	8.8	A	10	A
24	Carmel Creek Road / Carmel Grove Rd	Signalized	27.9	C	17.9	B
25	Carmel Valley Road / I-5 SB Ramps	Signalized	23	C	33.1	C
26	Carmel Valley Road / I-5 NB Ramps	Signalized	14.1	B	20.8	C
27	El Camino Real / Valley Centre Drive	Signalized	32.9	C	30.5	C
28	El Camino Real / Carmel Valley Rd	Signalized	15.1	B	20	B
29	El Camino Real / SR-56 EB On Ramp	Signalized	18.8	B	35.8	D
30	Carmel View Road / Valley Centre Drive	Signalized	7.4	A	8.3	A
31	Carmel Creek Road / SR-56 WB Ramp	Signalized	46.8	D	30.8	C
32	Carmel Creek Road / SR-56 EB Ramps	Signalized	12.6	B	27.8	C
33	Carmel Country Road / Carmel Canyon Rd	Signalized	35.9	D	25.8	C
34	Carmel Country Road / SR-56 WB Ramps	Signalized	16.2	B	12.4	B
35	Carmel Country Road / SR-56 EB Ramps	Signalized	14.3	B	12.2	B
36	Carmel Creek Road / Del Mar Trail	All-Way Stop	53.5	F	25.1	D

Notes:

Orange indicates unacceptable level of service.

LOS = Level of Service

TABLE 11-3

**Near Term With Project Freeway Segment Levels Of Service
(Build-out)**

Segment	Lanes	Dir.	Cap.	ADT	Peak Hour %	Dir. Split	Truck Factor	PHV	V/C	LOS
I-5										
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	NB	12,800	225,113	0.068	0.53	0.98	8,202	0.641	C
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	SB	12,800	225,066	0.067	0.55	0.98	8,465	0.661	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	NB	13,450	241,652	0.068	0.53	0.98	8,805	0.655	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	SB	13,450	241,605	0.067	0.55	0.98	9,087	0.676	C
Del Mar Heights Rd./ SR-56	6-GP+1-M	NB	15,780	247,186	0.068	0.53	0.98	9,007	0.571	B
Del Mar Heights Rd./ SR-56	6-GP+1-M	SB	15,780	247,128	0.067	0.55	0.98	9,295	0.589	B
SR-56/ Carmel Mountain Road	9-GP+1-M	NB	22,830	292,301	0.079	0.57	0.98	13,314	0.583	B
SR-56/ Carmel Mountain Road	8-GP+1-M	SB	20,480	292,301	0.080	0.55	0.98	13,075	0.638	C
Carmel Mountain Road/ I-805 Merge	10	NB	23,500	291,762	0.079	0.57	0.98	13,289	0.565	B
Carmel Mountain Road/ I-805 Merge	10	SB	23,500	291,762	0.080	0.55	0.98	13,051	0.555	B
SR-56										
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	EB	6,500	84,606	0.093	0.69	0.98	5,529	0.851	D
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	WB	6,500	84,606	0.094	0.70	0.98	5,670	0.872	D
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	EB	6,500	78,839	0.093	0.69	0.98	5,152	0.793	D
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	WB	6,500	78,839	0.094	0.70	0.98	5,284	0.813	D

Legend:

*Caltrans 2008 Count Data
Dir.= Direction
Cap. = Capacity
ADT= Average Daily Traffic
V/C= Volume to Capacity Ratio
LOS= Level of Service
PHV= Peak Hour Volume
#-GP= # of General Purpose Lanes
#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1680 vphpl taken from Caltrans Guide, December 2002)
HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 vphpl

Note:

Capacity for LOS "E" roadway is 2,350 vphpl.
Taken from Transition between LOS"C" and LOS "D" criteria for Basic Freeway Segments @ 65 mi/hr in "Caltrans Guide for the Preparation of Traffic Impact Studies", December 2002
AX = Auxiliary Lane with LOS "E" capacity of 1,800 vphpl
Peak Hour % and Dir. Split taken from Caltrans internet posted Traffic Volumes

TABLE 11-4

**Near Term With Project Ramp Meter Analysis
(Build-out)**

Most Restrictive Meter Rate

Location		Demand (Veh/Hr)	Meter Rate (Veh/Hr)	Excess Demand (Veh/Hr)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	470	368	102.0	16.63	2,958
	PM	461	368	93	15.16	2,697
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	371	499	0	0	0
	PM	216	499	0	0	0
Del Mar Heights Rd. / I-5 NB on Ramp	AM	N/A	Meter is not turned on			
	PM	643	593	49.5	5.01	1,436

NOTE:

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

Delay = (Demand - Meter Rate) / Meter Rate * 60 minutes/hour

Queue = Excess Demand * 29 feet/vehicle

12.0 LONG TERM CUMULATIVE (YEAR 2030) WITHOUT PROJECT

This section of the report evaluates the Long Term Cumulative (Year 2030) without project condition. This scenario represents the Long Term Cumulative traffic conditions absent the addition of One Paseo project traffic. The SANDAG Year 2030 Series 11 regional traffic forecast model is based on planning efforts involving all jurisdictions within the County of San Diego. SANDAG, as the regional planning agency collects data from these plans and collates this data within a traffic model. SANDAG also prepared the regional transportation plan (RTP) utilized by the traffic model as a basis for estimating future traffic. The One Paseo project was incorporated in this traffic model in zones 4606 and 4607. To maintain consistency with other traffic studies in the same community, the City requested we use Year 2030 I-5 / SR-56 Northbound (NB) Connector study traffic volumes based on the regional Series 10 traffic model. In the analysis, the I-5/SR-56 connector is assumed to be constructed and SR-56 is assumed to be constructed to six lanes with auxiliary lanes as appropriate. For study intersections and street segments not provided in the I-5 / SR-56 NB Connector study, the Series 11 traffic model was used as a basis for estimating future traffic. The future traffic volumes are more conservative assuming the One Paseo project traffic was NOT included in the I-5 / SR-56 NB Connector study. I-5 / SR-56 NB Connector study and the I-5 North Coast Corridor project are included in the Series 11 traffic model. To calculate Year 2030 conditions with the project, the One Paseo project was added to Year 2030 conditions without the project.

12.1 STREET SEGMENTS

Street segment volumes for Year 2030 conditions without the project are shown in **Figure 12-1**. The street segment levels of service for Year 2030 conditions without the project are shown in **Table 12-1**.



FIGURE 12-1
Year 2030 Without Project Average Daily Traffic Volumes

TABLE 12-1
Year 2030 Without Project Street Segment Levels of Service

Road	Segment	Jurisd.	Functional Class.	Capacity at LOS E	Volume	V/C	LOS
Del Mar Heights Rd.	Mango Drive to Portofino Drive	SD	5-M	45,000	39,580	0.88	D
	Portofino Drive to I-5 Southbound Ramps	SD	5-PA	50,000	39,580	0.79	C
	I-5 Southbound Ramps and I-5 Northbound Ramps	SD	5-PA	50,000	37,820	0.76	C
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	51,800	0.86	D
	High Bluff Drive to Third Avenue	SD	PA	60,000	42,770	0.71	C
	Thirth Avenue to First Avenue	SD	PA	60,000	42,770	0.71	C
	First Avenue to El Camino Real	SD	PA	60,000	42,770	0.71	C
	El Camino Real to Carmel Country Road	SD	PA	60,000	38,370	0.64	C
	Carmel Country Road to Torrey Ridge Road	SD	PA	60,000	34,400	0.57	B
	Torrey Ridge Road to Lansdale Drive	SD	PA	60,000	34,400	0.57	B
	Lansdale Drive to Carmel Canyon Road	SD	PA	60,000	34,400	0.57	B
El Camino Real	Via de la Valle to San Dieguito Road	SD	2-Ca	15,000	31,320	2.09	F
	San Dieguito Road to Derby Downs Road	SD	4-M	40,000	29,000	0.73	C
	Derby Downs Road to Half Mile Drive	SD	4-M	40,000	29,000	0.73	C
	Half Mile Drive to Quarter Mile Drive	SD	4-M	40,000	29,000	0.73	C
	Quarter Mile Drive to Del Mar Heights Road	SD	4-M	40,000	29,000	0.73	C
	Del Mar Heights Road to Townsgate Drive	SD	6-M	50,000	23,000	0.46	B
	Townsgate Drive to High Bluff Drive	SD	6-M	50,000	26,000	0.52	B
	High Bluff Drive to Valley Centre Drive	SD	6-M	50,000	35,620	0.71	C
Valley Centre Drive to Carmel Valley Road	SD	5-M	45,000	36,470	0.81	D	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	SD	4-M	40,000	22,280	0.56	C
	Townsgate Drive to Carmel Creek Road	SD	4-M	40,000	18,800	0.47	B
	Carmel Creek Road to Carmel Canyon Road	SD	4-M	40,000	13,590	0.34	A
	Carmel Canyon Road to SR-56 Westbound Ramps	SD	4-M	40,000	26,000	0.65	C
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	SD	4-M	40,000	13,000	0.33	A
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	SD	4-M	40,000	15,000	0.38	B
	Carmel Grove Road to SR-56 Westbound Ramps	SD	4-M	40,000	17,000	0.43	B
Valley Centre Drive	Carmel View Road to Carmel Creek Road	SD	4-C	30,000	20,000	0.67	D
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	SD	PA	60,000	43,020	0.72	C
High Bluff Drive	Del Mar Heights Road to El Camino Real	SD	2-Ca	15,000	11,700	0.78	D
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	2-Cb	10,000	33,100	3.31	F

Legend:

- SD= City of San Diego
- Cap.= Capacity
- Class.= Classification
- LOS= Level of Service
- V/C= Volume to Capacity Ratio
- PA = 6 lane Primary Arterial
- 6-M = 6 lane Major
- 4-M=4 lane Major
- 2-Ca=2 lane collector
- 2-Cb = 2 lane Collector with no fronting property
- 5-M = 5 lane Major with LOS E capacity of 45,000 ADT
- 5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

The following street segment is projected to operate at an unacceptable level of service:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Via de la Valle	San Andres Rd. to El Camino Real	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F

12.2 INTERSECTIONS

AM/PM peak hour turn volumes were established by using a factoring method based on Near Term with Project volumes and Year 2030 with Project volumes. Not all study intersections AM/PM peak hour turn volumes used the factoring method to develop Year 2030 with project volumes. Some of the AM/PM peak hour turn volumes were provided by the I-5 / SR-56 NB Connector study intersections. Project only peak hour volumes were added to the Year 2030 without project volumes to reflect Year 2030 with project peak hour volumes. The Year 2030 factoring worksheets for all study intersections can be found in Appendix K.

Existing lane configurations, as shown in **Figure 5-2**, were also used in long term cumulative scenarios. The intersection of Via de la Valle at El Camino Real is analyzed in the future (Year 2030) condition with the improved lane configuration shown in **Figure 5-2**. **Figure 12-2** shows the expected Year 2030 Without Project peak hour volumes at the intersections analyzed.

Table 12-2 shows the peak hour intersection levels of service. There are three intersections that are projected to operate at unacceptable levels of service, i.e. LOS “E” or “F”.

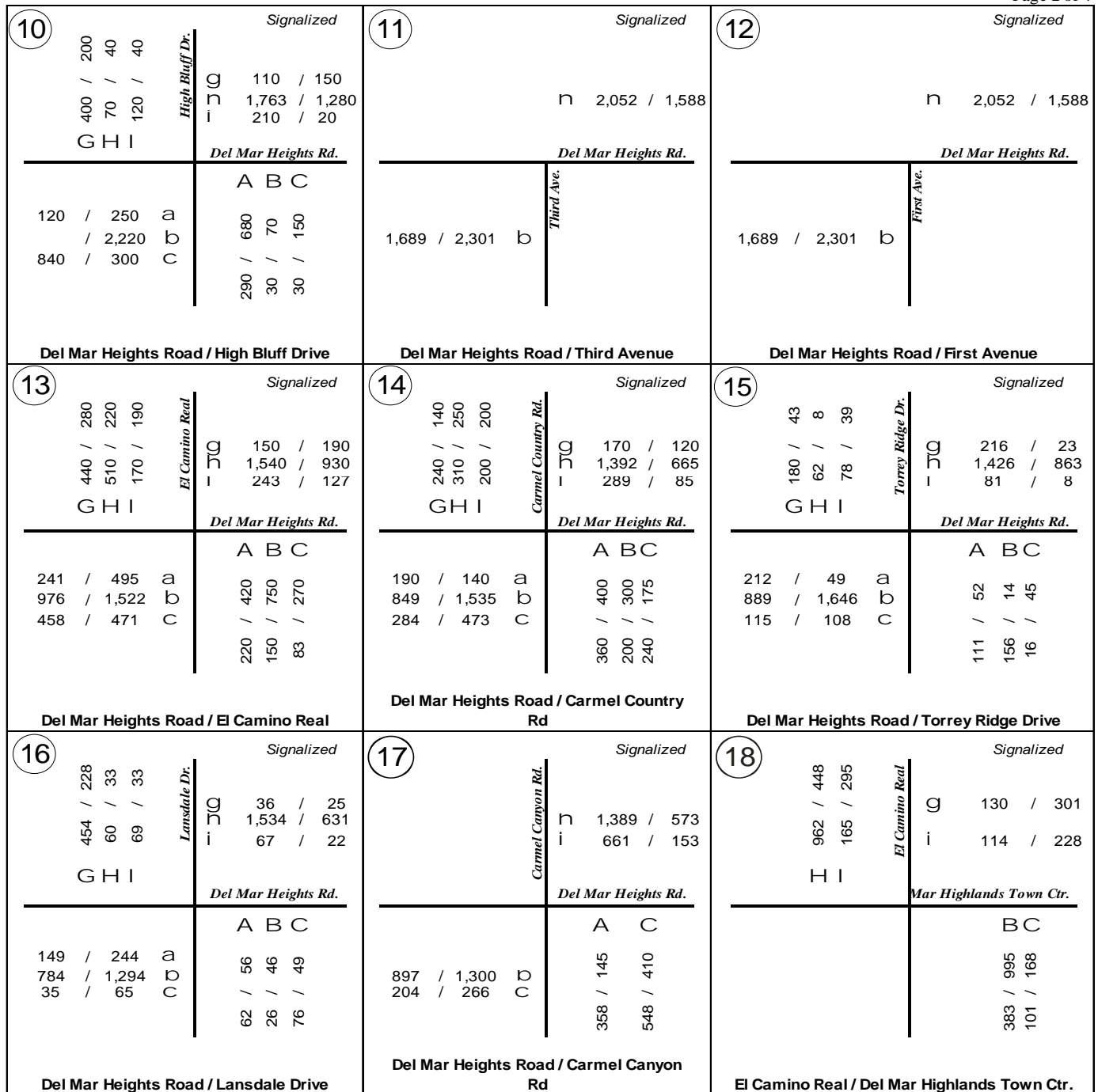
The Synchro worksheets for the Year 2030 without Project condition may be found in Appendix L.

<p>1 <i>Signalized</i></p> <table border="1"> <tr> <td>10 / 20</td> <td rowspan="3"><i>El Camino Real</i></td> <td>10 / 10</td> </tr> <tr> <td>10 / 10</td> <td>460 / 420</td> </tr> <tr> <td>10 / 20</td> <td>690 / 230</td> </tr> <tr> <td>G H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3"><i>Via de la Valle</i></td> </tr> <tr> <td>10 / 10</td> <td rowspan="3"><i>El Camino Real</i></td> <td>A B C</td> </tr> <tr> <td>380 / 400</td> <td>602</td> </tr> <tr> <td>500 / 500</td> <td>5 / 600</td> </tr> <tr> <td></td> <td></td> <td>450 / 190</td> </tr> </table> <p>El Camino Real / Via de la Valle</p>	10 / 20	<i>El Camino Real</i>	10 / 10	10 / 10	460 / 420	10 / 20	690 / 230	G H I			<i>Via de la Valle</i>			10 / 10	<i>El Camino Real</i>	A B C	380 / 400	602	500 / 500	5 / 600			450 / 190	<p>2 <i>Signalized</i></p> <table border="1"> <tr> <td>880 / 360</td> <td rowspan="3"><i>El Camino Real</i></td> <td>390 / 430</td> </tr> <tr> <td>340 / 370</td> <td>530 / 280</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3"><i>San Dieguito Road</i></td> </tr> <tr> <td></td> <td rowspan="3"><i>El Camino Real</i></td> <td>B C</td> </tr> <tr> <td></td> <td>890 / 400</td> </tr> <tr> <td></td> <td>340 / 370</td> </tr> </table> <p>El Camino Real / San Dieguito Road</p>	880 / 360	<i>El Camino Real</i>	390 / 430	340 / 370	530 / 280			H I			<i>San Dieguito Road</i>				<i>El Camino Real</i>	B C		890 / 400		340 / 370	<p>3 <i>Signalized</i></p> <table border="1"> <tr> <td>901 / 530</td> <td rowspan="3"><i>El Camino Real</i></td> <td>8 / 7</td> </tr> <tr> <td>3 / 8</td> <td>95 / 71</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3"><i>Derby Downs Rd.</i></td> </tr> <tr> <td></td> <td rowspan="3"><i>El Camino Real</i></td> <td>B C</td> </tr> <tr> <td></td> <td>942 / 111</td> </tr> <tr> <td></td> <td>499 / 52</td> </tr> </table> <p>El Camino Real / Derby Downs Road</p>	901 / 530	<i>El Camino Real</i>	8 / 7	3 / 8	95 / 71			H I			<i>Derby Downs Rd.</i>				<i>El Camino Real</i>	B C		942 / 111		499 / 52
10 / 20	<i>El Camino Real</i>		10 / 10																																																														
10 / 10			460 / 420																																																														
10 / 20		690 / 230																																																															
G H I																																																																	
<i>Via de la Valle</i>																																																																	
10 / 10	<i>El Camino Real</i>	A B C																																																															
380 / 400		602																																																															
500 / 500		5 / 600																																																															
		450 / 190																																																															
880 / 360	<i>El Camino Real</i>	390 / 430																																																															
340 / 370		530 / 280																																																															
H I																																																																	
<i>San Dieguito Road</i>																																																																	
	<i>El Camino Real</i>	B C																																																															
		890 / 400																																																															
		340 / 370																																																															
901 / 530	<i>El Camino Real</i>	8 / 7																																																															
3 / 8		95 / 71																																																															
H I																																																																	
<i>Derby Downs Rd.</i>																																																																	
	<i>El Camino Real</i>	B C																																																															
		942 / 111																																																															
		499 / 52																																																															
<p>4 <i>Signalized</i></p> <table border="1"> <tr> <td>107 / 28</td> <td rowspan="3"><i>El Camino Real</i></td> <td>168 / 169</td> </tr> <tr> <td>732 / 469</td> <td>84 / 21</td> </tr> <tr> <td>165 / 89</td> <td>61 / 16</td> </tr> <tr> <td>G H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3"><i>Half Mile Dr.</i></td> </tr> <tr> <td>26 / 25</td> <td rowspan="3"><i>El Camino Real</i></td> <td>A B C</td> </tr> <tr> <td>114 / 22</td> <td>26 / 850</td> </tr> <tr> <td>21 / 16</td> <td>6 / 49</td> </tr> <tr> <td></td> <td></td> <td>338 / 13</td> </tr> </table> <p>El Camino Real / Half Mile Drive</p>	107 / 28	<i>El Camino Real</i>	168 / 169	732 / 469	84 / 21	165 / 89	61 / 16	G H I			<i>Half Mile Dr.</i>			26 / 25	<i>El Camino Real</i>	A B C	114 / 22	26 / 850	21 / 16	6 / 49			338 / 13	<p>5 <i>Signalized</i></p> <table border="1"> <tr> <td>7 / 10</td> <td rowspan="3"><i>El Camino Real</i></td> <td>41 / 21</td> </tr> <tr> <td>821 / 493</td> <td>141 / 30</td> </tr> <tr> <td>42 / 23</td> <td>95 / 45</td> </tr> <tr> <td>G H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3"><i>Quarter Mile Dr.</i></td> </tr> <tr> <td>6 / 8</td> <td rowspan="3"><i>El Camino Real</i></td> <td>A B C</td> </tr> <tr> <td>85 / 42</td> <td>48 / 999</td> </tr> <tr> <td>79 / 36</td> <td>54 / 117</td> </tr> </table> <p>El Camino Real / Quarter Mile Drive</p>	7 / 10	<i>El Camino Real</i>	41 / 21	821 / 493	141 / 30	42 / 23	95 / 45	G H I			<i>Quarter Mile Dr.</i>			6 / 8	<i>El Camino Real</i>	A B C	85 / 42	48 / 999	79 / 36	54 / 117	<p>6 <i>Signalized</i></p> <table border="1"> <tr> <td>110 / 140</td> <td rowspan="3"><i>Mango Dr.</i></td> <td>230 / 230</td> </tr> <tr> <td>40 / 40</td> <td>1,150 / 900</td> </tr> <tr> <td>460 / 450</td> <td>90 / 130</td> </tr> <tr> <td>G H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3"><i>Del Mar Heights Rd.</i></td> </tr> <tr> <td>130 / 150</td> <td rowspan="3"><i>Mango Dr.</i></td> <td>A B C</td> </tr> <tr> <td>970 / 1,130</td> <td>90 / 50</td> </tr> <tr> <td>40 / 50</td> <td>70 / 140</td> </tr> </table> <p>Del Mar Heights Road / Mango Drive</p>	110 / 140	<i>Mango Dr.</i>	230 / 230	40 / 40	1,150 / 900	460 / 450	90 / 130	G H I			<i>Del Mar Heights Rd.</i>			130 / 150	<i>Mango Dr.</i>	A B C	970 / 1,130	90 / 50	40 / 50	70 / 140
107 / 28	<i>El Camino Real</i>		168 / 169																																																														
732 / 469			84 / 21																																																														
165 / 89		61 / 16																																																															
G H I																																																																	
<i>Half Mile Dr.</i>																																																																	
26 / 25	<i>El Camino Real</i>	A B C																																																															
114 / 22		26 / 850																																																															
21 / 16		6 / 49																																																															
		338 / 13																																																															
7 / 10	<i>El Camino Real</i>	41 / 21																																																															
821 / 493		141 / 30																																																															
42 / 23		95 / 45																																																															
G H I																																																																	
<i>Quarter Mile Dr.</i>																																																																	
6 / 8	<i>El Camino Real</i>	A B C																																																															
85 / 42		48 / 999																																																															
79 / 36		54 / 117																																																															
110 / 140	<i>Mango Dr.</i>	230 / 230																																																															
40 / 40		1,150 / 900																																																															
460 / 450		90 / 130																																																															
G H I																																																																	
<i>Del Mar Heights Rd.</i>																																																																	
130 / 150	<i>Mango Dr.</i>	A B C																																																															
970 / 1,130		90 / 50																																																															
40 / 50		70 / 140																																																															
<p>7 <i>Unsignalized</i></p> <table border="1"> <tr> <td>1,550 / 1,540</td> <td rowspan="3"><i>Portofino Dr.</i></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>G H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3"><i>Del Mar Heights Rd.</i></td> </tr> <tr> <td>1,450 / 1,770</td> <td rowspan="3"><i>Portofino Dr.</i></td> <td>A B C</td> </tr> <tr> <td>60 / 80</td> <td>90 / 170</td> </tr> <tr> <td></td> <td></td> </tr> </table> <p>Del Mar Heights Road / Portofino Drive</p>	1,550 / 1,540	<i>Portofino Dr.</i>						G H I			<i>Del Mar Heights Rd.</i>			1,450 / 1,770	<i>Portofino Dr.</i>	A B C	60 / 80	90 / 170			<p>8 <i>Signalized</i></p> <table border="1"> <tr> <td>550 / 400</td> <td rowspan="3"><i>I-5 SB Ramps</i></td> <td>1,230 / 800</td> </tr> <tr> <td>880 / 820</td> <td>1,000 / 1,140</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>G I</td> <td></td> <td></td> </tr> <tr> <td colspan="3"><i>Del Mar Heights Rd.</i></td> </tr> <tr> <td>960 / 1,280</td> <td rowspan="3"><i>I-5 SB Ramps</i></td> <td></td> </tr> <tr> <td>790 / 600</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table> <p>Del Mar Heights Road / I-5 SB Ramps</p>	550 / 400	<i>I-5 SB Ramps</i>	1,230 / 800	880 / 820	1,000 / 1,140			G I			<i>Del Mar Heights Rd.</i>			960 / 1,280	<i>I-5 SB Ramps</i>		790 / 600				<p>9 <i>Signalized</i></p> <table border="1"> <tr> <td>800 / 600</td> <td rowspan="3"><i>I-5 NB Ramps</i></td> <td>800 / 600</td> </tr> <tr> <td>1,850 / 1,340</td> <td>1,850 / 1,340</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>G H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3"><i>Del Mar Heights Rd.</i></td> </tr> <tr> <td>370 / 750</td> <td rowspan="3"><i>I-5 NB Ramps</i></td> <td>A B C</td> </tr> <tr> <td>1,580 / 1,633</td> <td>630 / 30</td> </tr> <tr> <td></td> <td>850 / 1,110</td> </tr> </table> <p>Del Mar Heights Road / I-5 NB Ramps</p>	800 / 600	<i>I-5 NB Ramps</i>	800 / 600	1,850 / 1,340	1,850 / 1,340			G H I			<i>Del Mar Heights Rd.</i>			370 / 750	<i>I-5 NB Ramps</i>	A B C	1,580 / 1,633	630 / 30		850 / 1,110			
1,550 / 1,540	<i>Portofino Dr.</i>																																																																
G H I																																																																	
<i>Del Mar Heights Rd.</i>																																																																	
1,450 / 1,770	<i>Portofino Dr.</i>	A B C																																																															
60 / 80		90 / 170																																																															
550 / 400	<i>I-5 SB Ramps</i>	1,230 / 800																																																															
880 / 820		1,000 / 1,140																																																															
G I																																																																	
<i>Del Mar Heights Rd.</i>																																																																	
960 / 1,280	<i>I-5 SB Ramps</i>																																																																
790 / 600																																																																	
800 / 600	<i>I-5 NB Ramps</i>	800 / 600																																																															
1,850 / 1,340		1,850 / 1,340																																																															
G H I																																																																	
<i>Del Mar Heights Rd.</i>																																																																	
370 / 750	<i>I-5 NB Ramps</i>	A B C																																																															
1,580 / 1,633		630 / 30																																																															
		850 / 1,110																																																															

Ints #1,2, & 6-9 show peak hour volumes from the Year 2030 I-5/SR-56 Direct Connector (Model Run G) Traffic Volumes, see Appendix E.

FIGURE 12-2

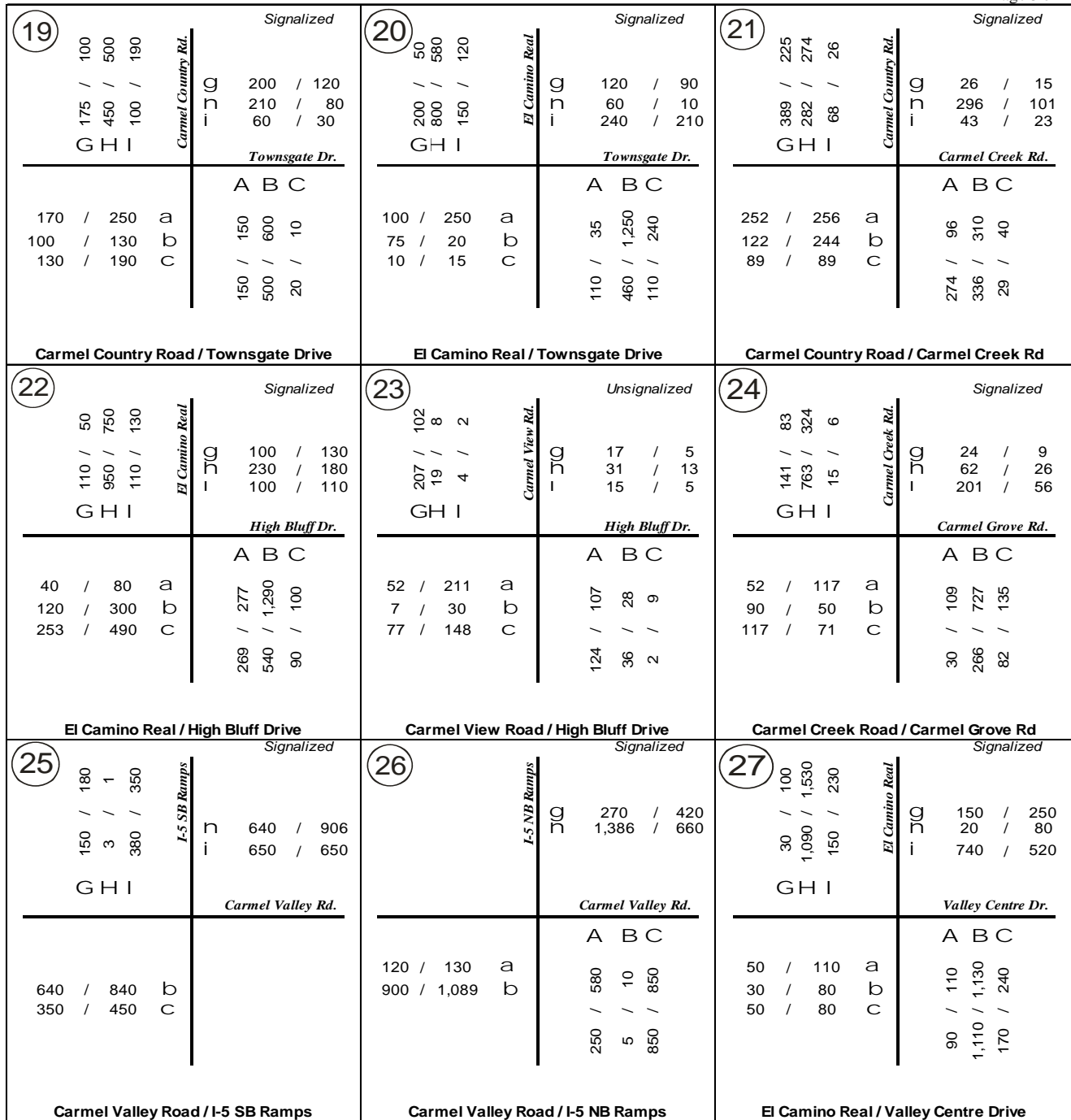
Year 2030 Without Project AM / PM Peak Hour Traffic Volumes



Ints #10,13,&14 show peak hour volumes from the Year 2030 I-5/SR-56 Direct Connector (Model Run G) Traffic Volumes, see Appendix E.

FIGURE 12-2

Year 2030 Without Project AM / PM Peak Hour Traffic Volumes



Ints #19,20,22,25-27 show peak hour volumes from the Year 2030 I-5/SR-56 Direct Connector (Model Run G) Traffic Volumes, see Appendix E.

FIGURE 12-2

Year 2030 Without Project AM / PM Peak Hour Traffic Volumes

<p>28</p> <p>Signalized</p> <table border="1"> <tr> <td>G</td> <td>650 / 510</td> <td rowspan="3">El Camino Real - JIG</td> <td>260 / 200</td> </tr> <tr> <td>H</td> <td>975 / 1,410</td> <td>610 / 100</td> </tr> <tr> <td></td> <td></td> <td>640 / 220</td> </tr> <tr> <td colspan="3">Carmel Valley Rd.</td> <td></td> </tr> <tr> <td colspan="3"></td> <td>A B</td> </tr> <tr> <td colspan="3"></td> <td>400 / 500</td> </tr> <tr> <td colspan="3"></td> <td>1,240 / 1,085</td> </tr> </table> <p>El Camino Real / Carmel Valley Rd</p>	G	650 / 510	El Camino Real - JIG	260 / 200	H	975 / 1,410	610 / 100			640 / 220	Carmel Valley Rd.							A B				400 / 500				1,240 / 1,085	<p>29</p> <p>Signalized</p> <table border="1"> <tr> <td>H</td> <td>1,480 / 1,280</td> <td rowspan="3">El Camino Real</td> <td></td> </tr> <tr> <td>I</td> <td>150 / 350</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="3">SR-56 EB On Ramp</td> <td></td> </tr> <tr> <td colspan="3"></td> <td>B C</td> </tr> <tr> <td colspan="3"></td> <td>800 / 740 a</td> </tr> <tr> <td colspan="3"></td> <td>930 / 1,207 b</td> </tr> <tr> <td colspan="3"></td> <td>310 / 200 c</td> </tr> <tr> <td colspan="3"></td> <td>510 / 920</td> </tr> <tr> <td colspan="3"></td> <td>320 / 1,000</td> </tr> </table> <p>El Camino Real / SR-56 EB On Ramp</p>	H	1,480 / 1,280	El Camino Real		I	150 / 350					SR-56 EB On Ramp							B C				800 / 740 a				930 / 1,207 b				310 / 200 c				510 / 920				320 / 1,000	<p>30</p> <p>Signalized</p> <table border="1"> <tr> <td>G</td> <td>127 / 52</td> <td rowspan="3">Carmel View Rd.</td> <td>27 / 107</td> </tr> <tr> <td>I</td> <td>107 / 34</td> <td>JIG</td> <td>480 / 393</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="3">Valley Centre Dr.</td> <td></td> </tr> <tr> <td colspan="3"></td> <td>a</td> </tr> <tr> <td colspan="3"></td> <td>18 / 75 a</td> </tr> <tr> <td colspan="3"></td> <td>228 / 429 b</td> </tr> </table> <p>Carmel View Road / Valley Centre Drive</p>	G	127 / 52	Carmel View Rd.	27 / 107	I	107 / 34	JIG	480 / 393					Valley Centre Dr.							a				18 / 75 a				228 / 429 b																														
G	650 / 510	El Camino Real - JIG		260 / 200																																																																																																																								
H	975 / 1,410			610 / 100																																																																																																																								
			640 / 220																																																																																																																									
Carmel Valley Rd.																																																																																																																												
			A B																																																																																																																									
			400 / 500																																																																																																																									
			1,240 / 1,085																																																																																																																									
H	1,480 / 1,280	El Camino Real																																																																																																																										
I	150 / 350																																																																																																																											
SR-56 EB On Ramp																																																																																																																												
			B C																																																																																																																									
			800 / 740 a																																																																																																																									
			930 / 1,207 b																																																																																																																									
			310 / 200 c																																																																																																																									
			510 / 920																																																																																																																									
			320 / 1,000																																																																																																																									
G	127 / 52	Carmel View Rd.	27 / 107																																																																																																																									
I	107 / 34		JIG	480 / 393																																																																																																																								
Valley Centre Dr.																																																																																																																												
			a																																																																																																																									
			18 / 75 a																																																																																																																									
			228 / 429 b																																																																																																																									
<p>31</p> <p>Signalized</p> <table border="1"> <tr> <td>G</td> <td>390 / 210</td> <td rowspan="3">Carmel Creek Rd.</td> <td>95 / 86</td> </tr> <tr> <td>H</td> <td>220 / 370</td> <td>JIG</td> <td>555 / 273</td> </tr> <tr> <td>I</td> <td>465 / 687</td> <td></td> <td>300 / 150</td> </tr> <tr> <td colspan="3">SR-56 WB Ramp</td> <td></td> </tr> <tr> <td colspan="3"></td> <td>A B C</td> </tr> <tr> <td colspan="3"></td> <td>54 / 100 a</td> </tr> <tr> <td colspan="3"></td> <td>220 / 300 b</td> </tr> <tr> <td colspan="3"></td> <td>180 / 330 c</td> </tr> <tr> <td colspan="3"></td> <td>380 / 400</td> </tr> <tr> <td colspan="3"></td> <td>550 / 978</td> </tr> <tr> <td colspan="3"></td> <td>354 / 340</td> </tr> </table> <p>Carmel Creek Road / SR-56 WB Ramp</p>	G	390 / 210	Carmel Creek Rd.	95 / 86	H	220 / 370	JIG	555 / 273	I	465 / 687		300 / 150	SR-56 WB Ramp							A B C				54 / 100 a				220 / 300 b				180 / 330 c				380 / 400				550 / 978				354 / 340	<p>32</p> <p>Signalized</p> <table border="1"> <tr> <td>H</td> <td>350 / 75</td> <td rowspan="3">Carmel Creek Rd.</td> <td></td> </tr> <tr> <td>I</td> <td>250 / 610</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="3">SR-56 EB Ramp</td> <td></td> </tr> <tr> <td colspan="3"></td> <td>B C</td> </tr> <tr> <td colspan="3"></td> <td>750 / 1,110 a</td> </tr> <tr> <td colspan="3"></td> <td>319 / 111 c</td> </tr> <tr> <td colspan="3"></td> <td>330 / 80</td> </tr> <tr> <td colspan="3"></td> <td>105 / 105</td> </tr> </table> <p>Carmel Creek Road / SR-56 EB Ramps</p>	H	350 / 75	Carmel Creek Rd.		I	250 / 610					SR-56 EB Ramp							B C				750 / 1,110 a				319 / 111 c				330 / 80				105 / 105	<p>33</p> <p>Signalized</p> <table border="1"> <tr> <td>G</td> <td>37 / 34</td> <td rowspan="3">Carmel Country Rd.</td> <td>128 / 47</td> </tr> <tr> <td>H</td> <td>482 / 404</td> <td>JIG</td> <td>157 / 59</td> </tr> <tr> <td>I</td> <td>148 / 218</td> <td></td> <td>618 / 228</td> </tr> <tr> <td colspan="3">Carmel Canyon Rd.</td> <td></td> </tr> <tr> <td colspan="3"></td> <td>A B C</td> </tr> <tr> <td colspan="3"></td> <td>35 / 32 a</td> </tr> <tr> <td colspan="3"></td> <td>110 / 220 b</td> </tr> <tr> <td colspan="3"></td> <td>234 / 103 c</td> </tr> <tr> <td colspan="3"></td> <td>159 / 103</td> </tr> <tr> <td colspan="3"></td> <td>304 / 271</td> </tr> <tr> <td colspan="3"></td> <td>575 / 687</td> </tr> </table> <p>Carmel Country Road / Carmel Canyon Rd</p>	G	37 / 34	Carmel Country Rd.	128 / 47	H	482 / 404	JIG	157 / 59	I	148 / 218		618 / 228	Carmel Canyon Rd.							A B C				35 / 32 a				110 / 220 b				234 / 103 c				159 / 103				304 / 271				575 / 687
G	390 / 210	Carmel Creek Rd.		95 / 86																																																																																																																								
H	220 / 370			JIG	555 / 273																																																																																																																							
I	465 / 687			300 / 150																																																																																																																								
SR-56 WB Ramp																																																																																																																												
			A B C																																																																																																																									
			54 / 100 a																																																																																																																									
			220 / 300 b																																																																																																																									
			180 / 330 c																																																																																																																									
			380 / 400																																																																																																																									
			550 / 978																																																																																																																									
			354 / 340																																																																																																																									
H	350 / 75	Carmel Creek Rd.																																																																																																																										
I	250 / 610																																																																																																																											
SR-56 EB Ramp																																																																																																																												
			B C																																																																																																																									
			750 / 1,110 a																																																																																																																									
			319 / 111 c																																																																																																																									
			330 / 80																																																																																																																									
			105 / 105																																																																																																																									
G	37 / 34	Carmel Country Rd.	128 / 47																																																																																																																									
H	482 / 404		JIG	157 / 59																																																																																																																								
I	148 / 218			618 / 228																																																																																																																								
Carmel Canyon Rd.																																																																																																																												
			A B C																																																																																																																									
			35 / 32 a																																																																																																																									
			110 / 220 b																																																																																																																									
			234 / 103 c																																																																																																																									
			159 / 103																																																																																																																									
			304 / 271																																																																																																																									
			575 / 687																																																																																																																									
<p>34</p> <p>Signalized</p> <table border="1"> <tr> <td>H</td> <td>590 / 600</td> <td rowspan="3">Carmel Country Rd.</td> <td>230 / 250</td> </tr> <tr> <td>I</td> <td>800 / 390</td> <td>JIG</td> <td>170 / 150</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="3">SR-56 WB Ramps</td> <td></td> </tr> <tr> <td colspan="3"></td> <td>B C</td> </tr> <tr> <td colspan="3"></td> <td>965 / 810</td> </tr> <tr> <td colspan="3"></td> <td>430 / 270</td> </tr> </table> <p>Carmel Country Road / SR-56 WB Ramps</p>	H	590 / 600	Carmel Country Rd.	230 / 250	I	800 / 390	JIG	170 / 150					SR-56 WB Ramps							B C				965 / 810				430 / 270	<p>35</p> <p>Signalized</p> <table border="1"> <tr> <td>H</td> <td>320 / 360</td> <td rowspan="3">Carmel Country Rd.</td> <td></td> </tr> <tr> <td>I</td> <td>410 / 290</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="3">SR-56 EB Ramps</td> <td></td> </tr> <tr> <td colspan="3"></td> <td>B C</td> </tr> <tr> <td colspan="3"></td> <td>310 / 860 a</td> </tr> <tr> <td colspan="3"></td> <td>310 / 520 c</td> </tr> <tr> <td colspan="3"></td> <td>1,200 / 540</td> </tr> <tr> <td colspan="3"></td> <td>250 / 300</td> </tr> </table> <p>Carmel Country Road / SR-56 EB Ramps</p>	H	320 / 360	Carmel Country Rd.		I	410 / 290					SR-56 EB Ramps							B C				310 / 860 a				310 / 520 c				1,200 / 540				250 / 300	<p>36</p> <p>Unsignalized</p> <table border="1"> <tr> <td>G</td> <td>10 / 3</td> <td rowspan="3">Carmel Creek Rd.</td> <td>25 / 10</td> </tr> <tr> <td>H</td> <td>933 / 393</td> <td>JIG</td> <td>2 / 12</td> </tr> <tr> <td>I</td> <td>15 / 15</td> <td></td> <td>202 / 56</td> </tr> <tr> <td colspan="3">Del Mar Trail</td> <td></td> </tr> <tr> <td colspan="3"></td> <td>A B C</td> </tr> <tr> <td colspan="3"></td> <td>10 / 12 a</td> </tr> <tr> <td colspan="3"></td> <td>10 / 5 b</td> </tr> <tr> <td colspan="3"></td> <td>10 / 4 c</td> </tr> <tr> <td colspan="3"></td> <td>3 / 12</td> </tr> <tr> <td colspan="3"></td> <td>239 / 740</td> </tr> <tr> <td colspan="3"></td> <td>101 / 101</td> </tr> </table> <p>Carmel Creek Road / Del Mar Trail</p>	G	10 / 3	Carmel Creek Rd.	25 / 10	H	933 / 393	JIG	2 / 12	I	15 / 15		202 / 56	Del Mar Trail							A B C				10 / 12 a				10 / 5 b				10 / 4 c				3 / 12				239 / 740				101 / 101																
H	590 / 600	Carmel Country Rd.		230 / 250																																																																																																																								
I	800 / 390			JIG	170 / 150																																																																																																																							
SR-56 WB Ramps																																																																																																																												
			B C																																																																																																																									
			965 / 810																																																																																																																									
			430 / 270																																																																																																																									
H	320 / 360	Carmel Country Rd.																																																																																																																										
I	410 / 290																																																																																																																											
SR-56 EB Ramps																																																																																																																												
			B C																																																																																																																									
			310 / 860 a																																																																																																																									
			310 / 520 c																																																																																																																									
			1,200 / 540																																																																																																																									
			250 / 300																																																																																																																									
G	10 / 3	Carmel Creek Rd.	25 / 10																																																																																																																									
H	933 / 393		JIG	2 / 12																																																																																																																								
I	15 / 15			202 / 56																																																																																																																								
Del Mar Trail																																																																																																																												
			A B C																																																																																																																									
			10 / 12 a																																																																																																																									
			10 / 5 b																																																																																																																									
			10 / 4 c																																																																																																																									
			3 / 12																																																																																																																									
			239 / 740																																																																																																																									
			101 / 101																																																																																																																									

Ints #28,29,31,32,34,35 show peak hour volumes from the Year 2030 I-5/SR-56 Direct Connector (Model Run G) Traffic Volumes, see Appendix E.

FIGURE 12-2

Year 2030 Without Project AM / PM Peak Hour Traffic Volumes

TABLE 12-2
Year 2030 Without Project Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Via de la Valle	Signalized	22.2	C	19.1	B
2	El Camino Real / San Dieguito Road	Signalized	24.2	C	47.2	D
3	El Camino Real / Derby Downs Road	Signalized	4.3	A	5.1	A
4	El Camino Real / Half Mile Drive	Signalized	22.9	C	14.0	B
5	El Camino Real / Quarter Mile Drive	Signalized	20.6	C	12.1	B
6	Del Mar Heights Road / Mango Drive	Signalized	36.8	D	29.3	C
7	Del Mar Heights Road / Portofino Drive	Minor Street	9.8	A	9.6	A
8	Del Mar Heights Road / I-5 SB Ramps	Signalized	26.1	C	22.4	C
9	Del Mar Heights Road / I-5 NB Ramps	Signalized	71.5	E	55.5	E
10	Del Mar Heights Road / High Bluff Drive	Signalized	44.0	D	40.1	D
11	Del Mar Heights Road / Third Avenue	Signalized	DNE	DNE	DNE	DNE
12	Del Mar Heights Road / First Avenue	Signalized	DNE	DNE	DNE	DNE
13	Del Mar Heights Road / El Camino Real	Signalized	35.0	C	41.5	D
14	Del Mar Heights Road / Carmel Country Rd	Signalized	33.6	C	34.1	C
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized	29.5	C	11.9	B
16	Del Mar Heights Road / Lansdale Drive	Signalized	32.7	C	18.7	B
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized	29.4	C	16	B
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized	6.2	A	14.2	B
19	Carmel Country Road / Townsgate Drive	Signalized	32.0	C	29.8	C
20	Carmel Country Road / Townsgate Drive	Signalized	22.5	C	24.3	C
21	Carmel Country Road / Carmel Creek Rd	Signalized	41.5	D	19.7	B
22	El Camino Real / High Bluff Drive	Signalized	22.9	C	33.6	C
23	Carmel View Road / High Bluff Drive	All Way Stop	8.9	A	9.8	A
24	Carmel Creek Road / Carmel Grove Rd	Signalized	15.3	B	11.4	B
25	Carmel Valley Road / I-5 SB Ramps	Signalized	25.3	C	30.9	C
26	Carmel Valley Road / I-5 NB Ramps	Signalized	26.8	C	19.6	B
27	El Camino Real / Valley Centre Drive	Signalized	22.0	C	27.4	C
28	El Camino Real / Carmel Valley Rd	Signalized	22.0	C	17.6	B
29	El Camino Real / SR-56 EB On Ramp	Signalized	23.1	C	89.0	F
30	Carmel View Road / Valley Centre Drive	Signalized	7.7	A	6.2	A
31	Carmel Creek Road / SR-56 WB Ramp	Signalized	47.0	D	42.6	D
32	Carmel Creek Road / SR-56 EB Ramps	Signalized	15.0	B	22.9	C
33	Carmel Country Road / Carmel Canyon Rd	Signalized	34.5	C	33.4	C
34	Carmel Country Road / SR-56 WB Ramps	Signalized	17.1	B	9.9	A
35	Carmel Country Road / SR-56 EB Ramps	Signalized	20.1	C	18.2	B
36	Carmel Creek Road / Del Mar Trail	All Way Stop	43.3	E	20.6	C

Notes:

DNE = Does Not Exist

Orange indicates unacceptable level of service.

Intersection #36 reports the worst approach delay and level of service

12.3 FREEWAY SEGMENTS

Table 12-3 shows the resulting levels of service for the I-5 and SR-56 freeway segments analyzed. As shown in **Table 12-3**, all freeway segments on I-5 are projected to operate at acceptable levels of service. The freeway segments on SR-56 are projected to operate at unacceptable levels of service, i.e. LOS “F”.

12.4 RAMP METERS

Table 12-4 shows the resulting delays and queues for the I-5 / Del Mar Heights Rd northbound and southbound ramps. The 15 minute maximum meter rate is also included in the Year 2030 without project analysis based on the delay of Del Mar Heights Rd. / I-5 SB on ramp (Westbound) is over 15 minutes. Ramp meters at SR-56 EB on ramps at El Camino Real and Carmel Country Road have been analyzed in this scenario based on ramp meters planned to be built in the future as part of the I-5 / SR-56 Connectors.

The ramp meter analysis shows long delays and queues, however, the Congestion Management Plan by SANDAG provides comments on the accuracy of the ramp meter analysis. The following comments states:

“Experience shows that the theoretical queue length derived by this analysis often does not materialize. Motorists, after a brief time of adjustment, seek alternative travel paths or alternate times of arrival at the meter. The effect is to approximately minimize total trip time by seeking out the best combinations of route and departure time at the beginning of the trip. This causes at least two important changes in the pattern of arriving traffic at ramp meters. First, the peak period is spread out, with some traffic arriving earlier and some traffic arriving later than predicted. Second, a significant proportion of the predicted arriving traffic will use another ramp, use another freeway, or stay on surface streets.”

TABLE 12-3

Year 2030 Without Project Freeway Segment Levels of Service

Segment	Lanes	Dir.	Cap.	ADT	Peak Hour %	Dir. Split	Truck Factor	PHV	V/C	LOS
I-5										
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	NB	12,800	258,913	0.068	0.53	0.98	9,434	0.737	C
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	SB	12,800	258,913	0.067	0.55	0.98	9,738	0.761	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	NB	13,450	286,874	0.068	0.53	0.98	10,453	0.777	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	SB	13,450	286,874	0.067	0.55	0.98	10,789	0.802	D
Del Mar Heights Rd./ SR-56	6-GP+1-M	NB	15,780	301,247	0.068	0.53	0.98	10,976	0.696	C
Del Mar Heights Rd./ SR-56	6-GP+1-M	SB	15,780	301,247	0.067	0.55	0.98	11,330	0.718	C
SR-56/ Carmel Mountain Road	9-GP+1-M	NB	22,830	409,604	0.079	0.57	0.98	18,657	0.817	D
SR-56/ Carmel Mountain Road	8-GP+1-M	SB	20,480	409,604	0.080	0.55	0.98	18,322	0.895	D
Carmel Mountain Road/ I-805 Merge	10	NB	23,500	389,443	0.079	0.57	0.98	17,738	0.755	C
Carmel Mountain Road/ I-805 Merge	10	SB	23,500	389,443	0.080	0.55	0.98	17,420	0.741	C
SR-56										
El Camino Real / Carmel Creek Rd.	3-GP + 1-AX	EB	8,850	133,342	0.093	0.69	0.98	8,714	0.985	E
El Camino Real / Carmel Creek Rd.	3-GP + 1-AX	WB	8,850	133,342	0.094	0.70	0.98	8,937	1.010	F
Carmel Creek Rd. / Carmel Country Rd.	3-GP + 1-AX	EB	8,850	122,242	0.093	0.69	0.98	7,989	0.903	D
Carmel Creek Rd. / Carmel Country Rd.	3-GP + 1-AX	WB	8,850	122,242	0.094	0.70	0.98	8,193	0.926	E

Legend:

Dir.= Direction
 Cap. = Capacity
 ADT= Average Daily Traffic
 V/C= Volume to Capacity Ratio
 LOS= Level of Service
 PHV= Peak Hour Volume
 #-GP= # of General Purpose Lanes
 #-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1680 vphpl taken from Caltrans Guide, December 2002)
 HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 vphpl

Note:

Capacity for LOS "E" roadway is 2,350 vphpl.
 Taken from Transition between LOS"C" and LOS "D" criteria for Basic Freeway Segments @ 65 mi/hr in "Caltrans Guide for the Preparation of Traffic Impact Studies", December 2002
 AX = Auxiliary Lane with LOS "E" capacity of 1,800 vphpl
 Peak Hour % and Dir. Split taken from Caltrans internet posted Traffic Volumes

TABLE 12-4

Year 2030 Without Project Ramp Meter Analysis

Most Restrictive Meter Rate

Location		Ramp Meter Lanes	Demand (Veh/Hr/Ln)	Meter Rate (Veh/Hr/Ln)	Excess Demand (Veh/Hr/Ln)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound) (Loop)	AM	2 SOV	615	368	247	40.27	7,163
	PM		400	368	32	5.22	928
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	1 SOV + 1 HOV	395	499	0	0	0
	PM		300	499	0	0	0
Del Mar Heights Rd. / I-5 NB on Ramp	AM	2 SOV	585	593	0	0.00	0
	PM		675	593	82	8.30	2,378
El Camino Real / SR-56 EB on Ramp	AM	2 SOV	700	1200	0	0.00	0
	PM		1279	1200	78.5	3.93	2,277
Carmel Country Rd. / SR-56 EB on Ramp	AM	2 SOV	660	900	0.00	0.00	0
	PM		590	900	0	0	0

NOTE:

The ramp meter rates at the EB on-ramps at El Camino Real & Carmel Country are based on SR-56 widened to 3 lanes in each direction per the Regional Transportation Plan which would allow more capacity on the freeway.

(Veh/Hr/Ln) = Vehicles per Hour per Lane

Meter rates are based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

Delay = (Demand - Meter Rate) / Meter Rate * 60 minutes/hour

Queue = Excess Demand * 29 feet/vehicle

SOV = Single Occupancy Vehicle

HOV = High Occupancy Vehicle

15 Minute Max. Meter Rate

Location		Ramp Meter Lanes	Demand (Veh/Hr/Ln)	Meter Rate (Veh/Hr/Ln)	Excess Demand (Veh/Hr/Ln)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound) (Loop)	AM	2 SOV	615	492	123	15.0	3,567
	PM		400	320	80	15.0	2,320
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	1 SOV + 1 HOV	395	316	79	15.0	2,291
	PM		300	240	60	15.0	1,740
Del Mar Heights Rd. / I-5 NB on Ramp	AM	2 SOV	585	468	117	15.0	3,393
	PM		675	540	135	15.0	3,915
El Camino Real / SR-56 EB on Ramp	AM	2 SOV	700	560	140	15.0	4,060
	PM		1279	1023	256	15.0	7,415
Carmel Country Rd. / SR-56 EB on Ramp	AM	2 SOV	330	264	66	15.0	1,914
	PM		295	236	59	15.0	1,711

NOTE:

Meter Rate = Demand / 1.25

Excess Demand = Demand - Meter Rate

Queue = Excess Demand * 29 feet/vehicle

13.0 LONG TERM CUMULATIVE (YEAR 2030) WITH PROJECT (BUILD-OUT)

Year 2030 with project volumes were derived by adding project (Build-out) traffic to Year 2030 without project traffic taken from either the I-5 / SR-56 NB Connector traffic study or the travel forecast model. This scenario represents the long term cumulative traffic conditions including One Paseo project traffic.

.

13.1 STREET SEGMENTS

Figure 13-1 shows the Year 2030 With Project street segment traffic volumes.

An analysis was completed for street segments in the Year 2030 With Project condition. As shown on **Table 13-1**, the following street segments are projected to operate at an unacceptable level of service:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F
Via de la Valle	San Andres Dr. to El Camino Real	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F



FIGURE 13-1

Year 2030 With Project (Build-out) Average Daily Traffic Volumes

TABLE 13-1

Year 2030 With Project (Build-out) Street Segment Levels of Service

Road	Segment	Jurisd.	Class.	Functional Class.	Capacity at LOS E	V/C	LOS
Del Mar Heights Rd.	Mango Drive to Portofino Drive	SD	5-M	45,000	41,639*	0.93	D
	Portofino Drive to I-5 Southbound Ramps	SD	5-PA	50,000	42,815	0.86	D
	I-5 SB Ramps and I-5 NB Ramps	SD	5-PA	50,000	43,482	0.87	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	62,315	1.04	F
	High Bluff Drive to Third Avenue	SD	PA	60,000	54,902	0.92	D
	Thirth Avenue to First Avenue	SD	PA	60,000	53,824	0.90	D
	First Avenue to El Camino Real	SD	PA	60,000	53,824	0.90	D
	El Camino Real to Carmel Country Road	SD	PA	60,000	46,189	0.77	C
	Carmel Country Road to Torrey Ridge Road	SD	PA	60,000	37,905	0.63	C
	Torrey Ridge Road to Lansdale Drive	SD	PA	60,000	36,826	0.61	C
Lansdale Drive to Carmel Canyon Road	SD	PA	60,000	35,748	0.60	C	
El Camino Real	Via de la Valle to San Dieguito Road	SD	2-Ca	15,000	32,129	2.14	F
	San Dieguito Road to Derby Downs Road	SD	4-M	40,000	30,078	0.75	D
	Derby Downs Road to Half Mile Drive	SD	4-M	40,000	30,078	0.75	D
	Half Mile Drive to Quarter Mile Drive	SD	4-M	40,000	30,348	0.76	D
	Quarter Mile Drive to Del Mar Heights Road	SD	4-M	40,000	30,618	0.77	D
	Del Mar Heights Road to Townsgate Drive	SD	6-M	50,000	28,392	0.57	C
	Townsgate Drive to High Bluff Drive	SD	6-M	50,000	29,505	0.59	C
	High Bluff Drive to Valley Centre Drive	SD	6-M	50,000	38,046	0.76	C
Valley Centre Drive to Carmel Valley Road	SD	5-M	45,000	38,088	0.85	D	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	SD	4-M	40,000	24,976	0.62	C
	Townsgate Drive to Carmel Creek Road	SD	4-M	40,000	20,957	0.52	B
	Carmel Creek Road to Carmel Canyon Road	SD	4-M	40,000	14,938	0.37	A
	Carmel Canyon Road to SR-56 WB Ramps	SD	4-M	40,000	27,078	0.68	C
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	SD	4-M	40,000	13,539	0.34	A
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	SD	4-M	40,000	15,809	0.40	B
	Carmel Grove Road to SR-56 WB Ramps	SD	4-M	40,000	17,809	0.45	B
Valley Centre Drive	Carmel View Road to Carmel Creek Road	SD	4-C	30,000	20,270	0.68	D
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	SD	PA	60,000	43,559	0.73	C
High Bluff Drive	Del Mar Heights Road to El Camino Real	SD	2-Ca	15,000	12,509	0.83	D
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	2-Cb	10,000	33,639	3.36	F

Legend:

- SD= City of San Diego
- Cap.= Capacity
- Class.= Classification
- LOS= Level of Service
- V/C= Volume to Capacity Ratio
- PA = 6 lane Primary Arterial
- 6-M = 6 lane Major
- 4-M=4 lane Major
- 2-Ca=2 lane collector
- 2-Cb = 2 lane Collector with no fronting property
- * Cumulative Rates used for this segment
- 5-M = 5 lane Major with LOS E capacity of 45,000 ADT
- 5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

13.2 INTERSECTIONS

Figure 13-2 shows the expected peak hour volumes at Year 2030 With Project (Build-out) for the intersections analyzed. **Table 13-2** shows the AM and PM peak hour levels of service for the Year 2030 with Project (Build-out) condition.

The following intersections are projected to operate at unacceptable levels of service, i.e. E or F:

Del Mar Heights Rd. / I-5 NB Ramps
Del Mar Heights Rd. / High Bluff Dr.
Del Mar Heights Rd. / El Camino Real
El Camino Real / SR-56 EB On-Ramp
Carmel Creek Road / Del Mar Trail

Appendix M includes the Synchro worksheets for Year 2030 with Project condition.

13.3 FREEWAY SEGMENTS

Table 13-3 shows the resulting levels of service for the I-5 and SR-56 freeway segments analyzed. As shown in **Table 13-3**, all freeway segments on I-5 are projected to operate at acceptable levels of service. The freeway segments on SR-56 are projected to operate at unacceptable levels of service, i.e. LOS “F₀”.

13.4 RAMP METERS

Table 13-4 shows the resulting delays and queues for the I-5 / Del Mar Heights Rd northbound and southbound ramps. The 15 minute maximum meter rate is also included in the Year 2030 without project analysis based on the delay of Del Mar Heights Rd. / I-5 SB on ramp (Westbound) is over 15 minutes. Ramp meters at SR-56 EB on ramps at El Camino Real and Carmel Country Road have been analyzed in this scenario based on ramp meters planned to be built in the future as part of the I-5 / SR-56 Connectors.

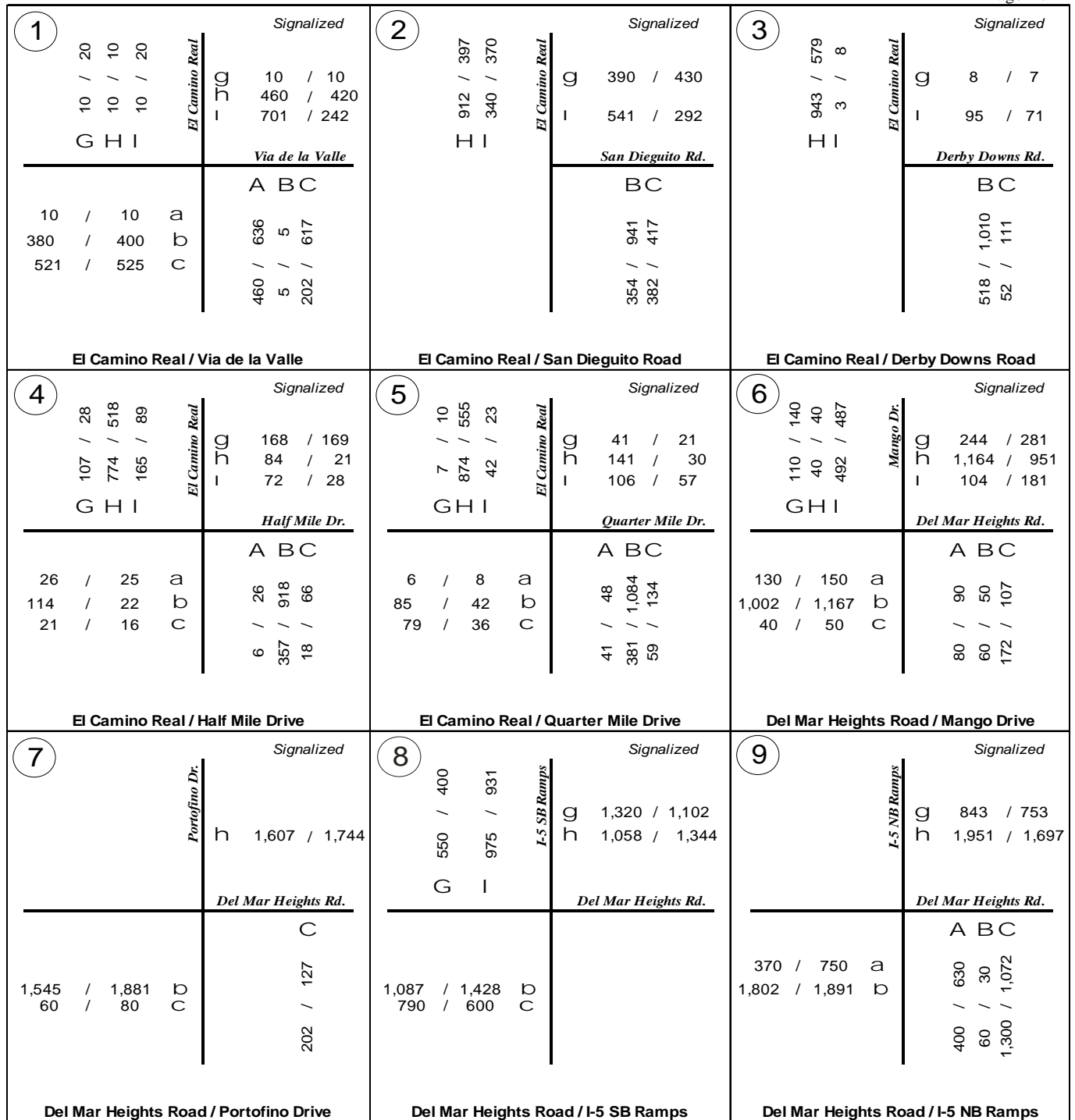


FIGURE 13-2

Year 2030 With Project (Build-out) AM/PM Peak Hour Traffic Volumes

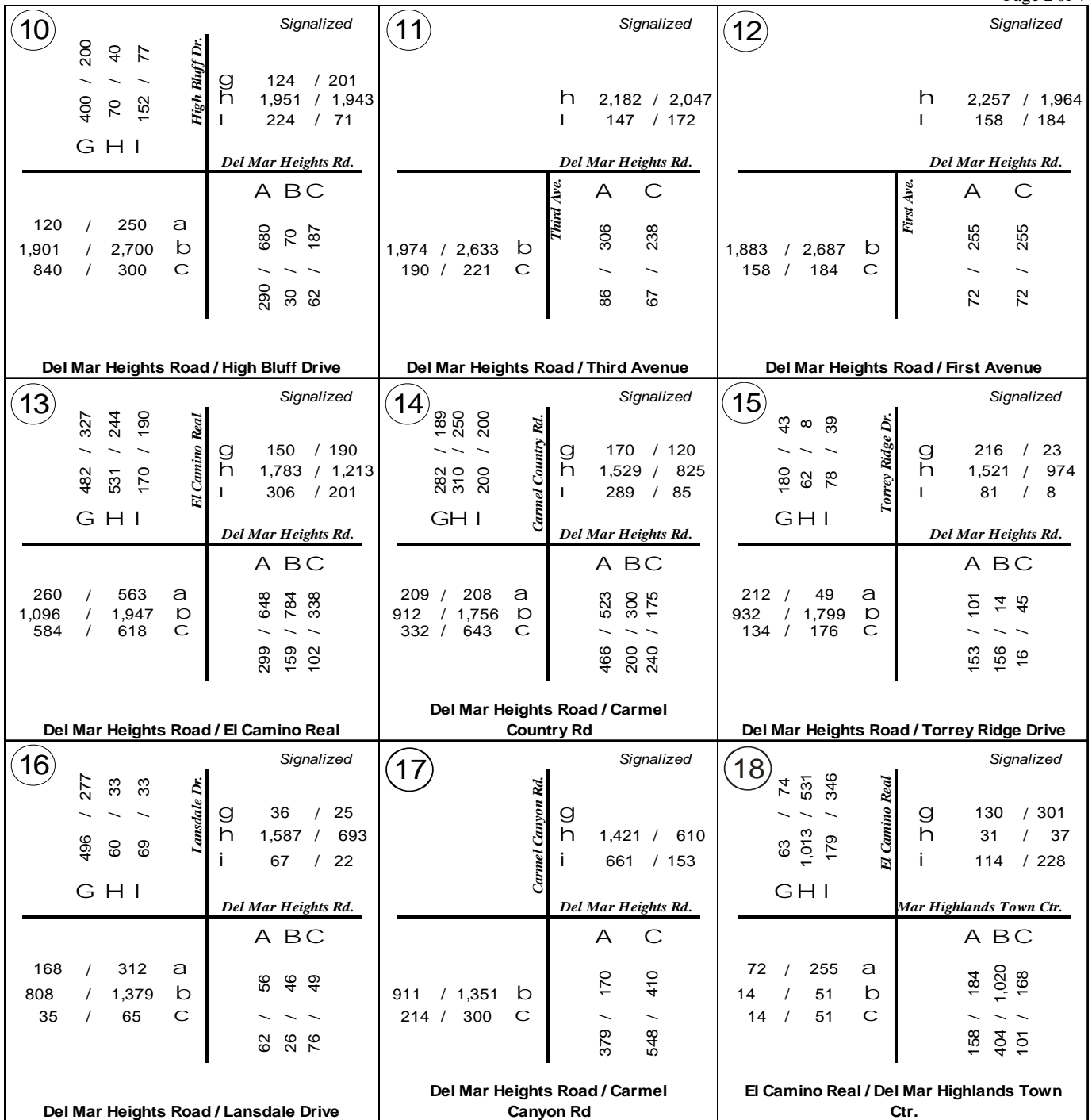


FIGURE 13-2

Year 2030 With Project (Build-out) AM/PM Peak Hour Traffic Volumes

<p>19 Signalized</p> <table border="1"> <tr> <td>185 / 134 489 / 636 100 / 190</td> <td>Carmel Country Rd.</td> <td>200 / 120 210 / 80 60 / 30</td> </tr> <tr> <td>G H I</td> <td>- J Q</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Townsgate Dr.</td> </tr> <tr> <td colspan="3" style="text-align: center;">A B C</td> </tr> <tr> <td>191 / 275 100 / 130 130 / 190</td> <td>a b c</td> <td>150 / 150 585 / 698 20 / 10</td> </tr> </table> <p>Carmel Country Road / Townsgate Drive</p>	185 / 134 489 / 636 100 / 190	Carmel Country Rd.	200 / 120 210 / 80 60 / 30	G H I	- J Q		Townsgate Dr.			A B C			191 / 275 100 / 130 130 / 190	a b c	150 / 150 585 / 698 20 / 10	<p>20 Signalized</p> <table border="1"> <tr> <td>200 / 50 863 / 801 169 / 188</td> <td>El Camino Real</td> <td>162 / 139 60 / 10 240 / 210</td> </tr> <tr> <td>G H I</td> <td>- J Q</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Townsgate Dr.</td> </tr> <tr> <td colspan="3" style="text-align: center;">A B C</td> </tr> <tr> <td>100 / 250 75 / 20 10 / 15</td> <td>a b c</td> <td>35 / 35 1,410 / 240 110 / 110</td> </tr> </table> <p>El Camino Real / Townsgate Drive</p>	200 / 50 863 / 801 169 / 188	El Camino Real	162 / 139 60 / 10 240 / 210	G H I	- J Q		Townsgate Dr.			A B C			100 / 250 75 / 20 10 / 15	a b c	35 / 35 1,410 / 240 110 / 110	<p>21 Signalized</p> <table border="1"> <tr> <td>403 / 276 306 / 359 68 / 26</td> <td>Carmel Country Rd.</td> <td>26 / 15 296 / 101 43 / 23</td> </tr> <tr> <td>G H I</td> <td>- J Q</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Carmel Creek Rd.</td> </tr> <tr> <td colspan="3" style="text-align: center;">A B C</td> </tr> <tr> <td>284 / 293 122 / 244 89 / 89</td> <td>a b c</td> <td>96 / 96 372 / 372 29 / 29</td> </tr> </table> <p>Carmel Country Road / Carmel Creek Rd</p>	403 / 276 306 / 359 68 / 26	Carmel Country Rd.	26 / 15 296 / 101 43 / 23	G H I	- J Q		Carmel Creek Rd.			A B C			284 / 293 122 / 244 89 / 89	a b c	96 / 96 372 / 372 29 / 29
185 / 134 489 / 636 100 / 190	Carmel Country Rd.	200 / 120 210 / 80 60 / 30																																													
G H I	- J Q																																														
Townsgate Dr.																																															
A B C																																															
191 / 275 100 / 130 130 / 190	a b c	150 / 150 585 / 698 20 / 10																																													
200 / 50 863 / 801 169 / 188	El Camino Real	162 / 139 60 / 10 240 / 210																																													
G H I	- J Q																																														
Townsgate Dr.																																															
A B C																																															
100 / 250 75 / 20 10 / 15	a b c	35 / 35 1,410 / 240 110 / 110																																													
403 / 276 306 / 359 68 / 26	Carmel Country Rd.	26 / 15 296 / 101 43 / 23																																													
G H I	- J Q																																														
Carmel Creek Rd.																																															
A B C																																															
284 / 293 122 / 244 89 / 89	a b c	96 / 96 372 / 372 29 / 29																																													
<p>22 Signalized</p> <table border="1"> <tr> <td>110 / 50 993 / 903 129 / 198</td> <td>El Camino Real</td> <td>142 / 179 230 / 180 100 / 110</td> </tr> <tr> <td>G H I</td> <td>- J Q</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">High Bluff Dr.</td> </tr> <tr> <td colspan="3" style="text-align: center;">A B C</td> </tr> <tr> <td>40 / 80 120 / 300 253 / 490</td> <td>a b c</td> <td>277 / 277 1,401 / 100 269 / 90</td> </tr> </table> <p>El Camino Real / High Bluff Drive</p>	110 / 50 993 / 903 129 / 198	El Camino Real	142 / 179 230 / 180 100 / 110	G H I	- J Q		High Bluff Dr.			A B C			40 / 80 120 / 300 253 / 490	a b c	277 / 277 1,401 / 100 269 / 90	<p>23 Signalized</p> <table border="1"> <tr> <td>228 / 127 19 / 8 4 / 2</td> <td>Carmel View Rd.</td> <td>17 / 5 31 / 13 15 / 5</td> </tr> <tr> <td>G H I</td> <td>- J Q</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">High Bluff Dr.</td> </tr> <tr> <td colspan="3" style="text-align: center;">A B C</td> </tr> <tr> <td>62 / 245 7 / 30 87 / 182</td> <td>a b c</td> <td>132 / 132 28 / 9 2 / 2</td> </tr> </table> <p>Carmel View Road / High Bluff Drive</p>	228 / 127 19 / 8 4 / 2	Carmel View Rd.	17 / 5 31 / 13 15 / 5	G H I	- J Q		High Bluff Dr.			A B C			62 / 245 7 / 30 87 / 182	a b c	132 / 132 28 / 9 2 / 2	<p>24 Signalized</p> <table border="1"> <tr> <td>141 / 83 777 / 375 15 / 6</td> <td>Carmel Creek Rd.</td> <td>24 / 9 62 / 26 201 / 56</td> </tr> <tr> <td>G H I</td> <td>- J Q</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Carmel Grove Rd.</td> </tr> <tr> <td colspan="3" style="text-align: center;">A B C</td> </tr> <tr> <td>52 / 117 90 / 50 117 / 71</td> <td>a b c</td> <td>109 / 109 764 / 82 135 / 135</td> </tr> </table> <p>Carmel Creek Road / Carmel Grove Rd</p>	141 / 83 777 / 375 15 / 6	Carmel Creek Rd.	24 / 9 62 / 26 201 / 56	G H I	- J Q		Carmel Grove Rd.			A B C			52 / 117 90 / 50 117 / 71	a b c	109 / 109 764 / 82 135 / 135
110 / 50 993 / 903 129 / 198	El Camino Real	142 / 179 230 / 180 100 / 110																																													
G H I	- J Q																																														
High Bluff Dr.																																															
A B C																																															
40 / 80 120 / 300 253 / 490	a b c	277 / 277 1,401 / 100 269 / 90																																													
228 / 127 19 / 8 4 / 2	Carmel View Rd.	17 / 5 31 / 13 15 / 5																																													
G H I	- J Q																																														
High Bluff Dr.																																															
A B C																																															
62 / 245 7 / 30 87 / 182	a b c	132 / 132 28 / 9 2 / 2																																													
141 / 83 777 / 375 15 / 6	Carmel Creek Rd.	24 / 9 62 / 26 201 / 56																																													
G H I	- J Q																																														
Carmel Grove Rd.																																															
A B C																																															
52 / 117 90 / 50 117 / 71	a b c	109 / 109 764 / 82 135 / 135																																													
<p>25 Signalized</p> <table border="1"> <tr> <td>150 / 180 3 / 1 380 / 350</td> <td>I-5 SB Ramps</td> <td>650 / 940 650 / 650</td> </tr> <tr> <td>G H I</td> <td>h i</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Carmel Valley Rd.</td> </tr> <tr> <td colspan="3" style="text-align: center;">A B C</td> </tr> <tr> <td>661 / 865 350 / 450</td> <td>b c</td> <td></td> </tr> </table> <p>Carmel Valley Road / I-5 SB Ramps</p>	150 / 180 3 / 1 380 / 350	I-5 SB Ramps	650 / 940 650 / 650	G H I	h i		Carmel Valley Rd.			A B C			661 / 865 350 / 450	b c		<p>26 Signalized</p> <table border="1"> <tr> <td></td> <td>I-5 NB Ramps</td> <td>270 / 420 1,396 / 694</td> </tr> <tr> <td></td> <td>g h</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Carmel Valley Rd.</td> </tr> <tr> <td colspan="3" style="text-align: center;">A B C</td> </tr> <tr> <td>120 / 130 921 / 1,114</td> <td>a b</td> <td>580 / 10 10 / 850 250 / 850</td> </tr> </table> <p>Carmel Valley Road / I-5 NB Ramps</p>		I-5 NB Ramps	270 / 420 1,396 / 694		g h		Carmel Valley Rd.			A B C			120 / 130 921 / 1,114	a b	580 / 10 10 / 850 250 / 850	<p>27 Signalized</p> <table border="1"> <tr> <td>30 / 100 1,119 / 1,632 164 / 281</td> <td>El Camino Real</td> <td>182 / 287 20 / 80 740 / 520</td> </tr> <tr> <td>G H I</td> <td>h i</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Valley Centre Dr.</td> </tr> <tr> <td colspan="3" style="text-align: center;">A B C</td> </tr> <tr> <td>50 / 110 30 / 80 50 / 80</td> <td>a b c</td> <td>110 / 110 1,204 / 170 240 / 240</td> </tr> </table> <p>El Camino Real / Valley Centre Drive</p>	30 / 100 1,119 / 1,632 164 / 281	El Camino Real	182 / 287 20 / 80 740 / 520	G H I	h i		Valley Centre Dr.			A B C			50 / 110 30 / 80 50 / 80	a b c	110 / 110 1,204 / 170 240 / 240
150 / 180 3 / 1 380 / 350	I-5 SB Ramps	650 / 940 650 / 650																																													
G H I	h i																																														
Carmel Valley Rd.																																															
A B C																																															
661 / 865 350 / 450	b c																																														
	I-5 NB Ramps	270 / 420 1,396 / 694																																													
	g h																																														
Carmel Valley Rd.																																															
A B C																																															
120 / 130 921 / 1,114	a b	580 / 10 10 / 850 250 / 850																																													
30 / 100 1,119 / 1,632 164 / 281	El Camino Real	182 / 287 20 / 80 740 / 520																																													
G H I	h i																																														
Valley Centre Dr.																																															
A B C																																															
50 / 110 30 / 80 50 / 80	a b c	110 / 110 1,204 / 170 240 / 240																																													

FIGURE 13-2

Year 2030 With Project (Build-out) AM/PM Peak Hour Traffic Volumes

<p>28 <i>Signalized</i></p> <table border="1"> <tr> <td>660 / 544 994 / 1,478</td> <td><i>El Camino Real</i></td> <td>JUG 260 / 200 610 / 100 640 / 220</td> </tr> <tr> <td>G H</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;"><i>Carmel Valley Rd.</i></td> </tr> <tr> <td>21 / 25</td> <td>a</td> <td>A B 400 / 500 1,127 / 1,289</td> </tr> </table> <p>El Camino Real / Carmel Valley Rd</p>	660 / 544 994 / 1,478	<i>El Camino Real</i>	JUG 260 / 200 610 / 100 640 / 220	G H			<i>Carmel Valley Rd.</i>			21 / 25	a	A B 400 / 500 1,127 / 1,289	<p>29 <i>Signalized</i></p> <table border="1"> <tr> <td>1,490 / 1,314 160 / 384</td> <td><i>El Camino Real</i></td> <td>G 800 / 740 a 930 / 1,207 b 310 / 200 c</td> </tr> <tr> <td>H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;"><i>SR-56 EB Ramps</i></td> </tr> <tr> <td></td> <td></td> <td>BC 531 / 945 320 / 1,000</td> </tr> </table> <p>El Camino Real / SR-56 EB On Ramp</p>	1,490 / 1,314 160 / 384	<i>El Camino Real</i>	G 800 / 740 a 930 / 1,207 b 310 / 200 c	H I			<i>SR-56 EB Ramps</i>					BC 531 / 945 320 / 1,000	<p>30 <i>Signalized</i></p> <table border="1"> <tr> <td>127 / 52 107 / 34</td> <td><i>Carmel View Rd.</i></td> <td>JUG 27 / 107 485 / 410</td> </tr> <tr> <td>G I</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;"><i>Valley Centre Dr.</i></td> </tr> <tr> <td>18 / 75</td> <td>a</td> <td></td> </tr> <tr> <td>239 / 441</td> <td>b</td> <td></td> </tr> </table> <p>Carmel View Road / Valley Centre Drive</p>	127 / 52 107 / 34	<i>Carmel View Rd.</i>	JUG 27 / 107 485 / 410	G I			<i>Valley Centre Dr.</i>			18 / 75	a		239 / 441	b													
660 / 544 994 / 1,478	<i>El Camino Real</i>	JUG 260 / 200 610 / 100 640 / 220																																																			
G H																																																					
<i>Carmel Valley Rd.</i>																																																					
21 / 25	a	A B 400 / 500 1,127 / 1,289																																																			
1,490 / 1,314 160 / 384	<i>El Camino Real</i>	G 800 / 740 a 930 / 1,207 b 310 / 200 c																																																			
H I																																																					
<i>SR-56 EB Ramps</i>																																																					
		BC 531 / 945 320 / 1,000																																																			
127 / 52 107 / 34	<i>Carmel View Rd.</i>	JUG 27 / 107 485 / 410																																																			
G I																																																					
<i>Valley Centre Dr.</i>																																																					
18 / 75	a																																																				
239 / 441	b																																																				
<p>31 <i>Signalized</i></p> <table border="1"> <tr> <td>395 / 227 230 / 404 465 / 687</td> <td><i>Carmel Creek Rd.</i></td> <td>JUG 95 / 86 555 / 273 300 / 150</td> </tr> <tr> <td>G H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;"><i>SR-56 WB Ramps</i></td> </tr> <tr> <td>65 / 112</td> <td>a</td> <td>A BC 380 / 400 571 / 1,003 354 / 340</td> </tr> <tr> <td>220 / 300</td> <td>b</td> <td></td> </tr> <tr> <td>180 / 330</td> <td>c</td> <td></td> </tr> </table> <p>Carmel Creek Road / SR-56 WB Ramp</p>	395 / 227 230 / 404 465 / 687	<i>Carmel Creek Rd.</i>	JUG 95 / 86 555 / 273 300 / 150	G H I			<i>SR-56 WB Ramps</i>			65 / 112	a	A BC 380 / 400 571 / 1,003 354 / 340	220 / 300	b		180 / 330	c		<p>32 <i>Signalized</i></p> <table border="1"> <tr> <td>360 / 109 250 / 610</td> <td><i>Carmel Creek Rd.</i></td> <td>JUG 750 / 1,110 a 319 / 111 c</td> </tr> <tr> <td>H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;"><i>SR-56 EB Ramps</i></td> </tr> <tr> <td></td> <td></td> <td>BC 351 / 105 105 / 105</td> </tr> </table> <p>Carmel Creek Road / SR-56 EB Ramps</p>	360 / 109 250 / 610	<i>Carmel Creek Rd.</i>	JUG 750 / 1,110 a 319 / 111 c	H I			<i>SR-56 EB Ramps</i>					BC 351 / 105 105 / 105	<p>33 <i>Signalized</i></p> <table border="1"> <tr> <td>42 / 51 501 / 472 148 / 218</td> <td><i>Carmel Country Rd.</i></td> <td>JUG 128 / 47 157 / 59 618 / 228</td> </tr> <tr> <td>G H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;"><i>Carmel Canyon Rd.</i></td> </tr> <tr> <td>46 / 44</td> <td>a</td> <td>A BC 110 / 103 234 / 103</td> </tr> <tr> <td>110 / 220</td> <td>b</td> <td></td> </tr> <tr> <td>234 / 103</td> <td>c</td> <td></td> </tr> <tr> <td></td> <td></td> <td>159 / 103 346 / 320 575 / 687</td> </tr> </table> <p>Carmel Country Road / Carmel Canyon Rd</p>	42 / 51 501 / 472 148 / 218	<i>Carmel Country Rd.</i>	JUG 128 / 47 157 / 59 618 / 228	G H I			<i>Carmel Canyon Rd.</i>			46 / 44	a	A BC 110 / 103 234 / 103	110 / 220	b		234 / 103	c				159 / 103 346 / 320 575 / 687
395 / 227 230 / 404 465 / 687	<i>Carmel Creek Rd.</i>	JUG 95 / 86 555 / 273 300 / 150																																																			
G H I																																																					
<i>SR-56 WB Ramps</i>																																																					
65 / 112	a	A BC 380 / 400 571 / 1,003 354 / 340																																																			
220 / 300	b																																																				
180 / 330	c																																																				
360 / 109 250 / 610	<i>Carmel Creek Rd.</i>	JUG 750 / 1,110 a 319 / 111 c																																																			
H I																																																					
<i>SR-56 EB Ramps</i>																																																					
		BC 351 / 105 105 / 105																																																			
42 / 51 501 / 472 148 / 218	<i>Carmel Country Rd.</i>	JUG 128 / 47 157 / 59 618 / 228																																																			
G H I																																																					
<i>Carmel Canyon Rd.</i>																																																					
46 / 44	a	A BC 110 / 103 234 / 103																																																			
110 / 220	b																																																				
234 / 103	c																																																				
		159 / 103 346 / 320 575 / 687																																																			
<p>34 <i>Signalized</i></p> <table border="1"> <tr> <td>594 / 622 800 / 390</td> <td><i>Carmel Country Rd.</i></td> <td>JUG 251 / 275 170 / 150</td> </tr> <tr> <td>H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;"><i>SR-56 WB Ramps</i></td> </tr> <tr> <td></td> <td></td> <td>BC 965 / 810 430 / 270</td> </tr> </table> <p>Carmel Country Road / SR-56 WB Ramps</p>	594 / 622 800 / 390	<i>Carmel Country Rd.</i>	JUG 251 / 275 170 / 150	H I			<i>SR-56 WB Ramps</i>					BC 965 / 810 430 / 270	<p>35 <i>Signalized</i></p> <table border="1"> <tr> <td>320 / 360 420 / 324</td> <td><i>Carmel Country Rd.</i></td> <td>JUG 310 / 860 a 310 / 520 c</td> </tr> <tr> <td>H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;"><i>SR-56 EB Ramps</i></td> </tr> <tr> <td></td> <td></td> <td>BC 1,200 / 540 250 / 300</td> </tr> </table> <p>Carmel Country Road / SR-56 EB Ramps</p>	320 / 360 420 / 324	<i>Carmel Country Rd.</i>	JUG 310 / 860 a 310 / 520 c	H I			<i>SR-56 EB Ramps</i>					BC 1,200 / 540 250 / 300	<p>36 <i>Unsignalized</i></p> <table border="1"> <tr> <td>3 / 10 947 / 444 15 / 15</td> <td><i>Carmel Creek Rd.</i></td> <td>JUG 25 / 10 2 / 12 202 / 56</td> </tr> <tr> <td>G H I</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;"><i>Del Mar Trail</i></td> </tr> <tr> <td>10 / 5 10 / 5 10 / 4</td> <td>CD C D D C D D</td> <td>A BC 3 / 12 271 / 777 101 / 101 101</td> </tr> </table> <p>Carmel Creek Road / Del Mar Trail</p>	3 / 10 947 / 444 15 / 15	<i>Carmel Creek Rd.</i>	JUG 25 / 10 2 / 12 202 / 56	G H I			<i>Del Mar Trail</i>			10 / 5 10 / 5 10 / 4	CD C D D C D D	A BC 3 / 12 271 / 777 101 / 101 101															
594 / 622 800 / 390	<i>Carmel Country Rd.</i>	JUG 251 / 275 170 / 150																																																			
H I																																																					
<i>SR-56 WB Ramps</i>																																																					
		BC 965 / 810 430 / 270																																																			
320 / 360 420 / 324	<i>Carmel Country Rd.</i>	JUG 310 / 860 a 310 / 520 c																																																			
H I																																																					
<i>SR-56 EB Ramps</i>																																																					
		BC 1,200 / 540 250 / 300																																																			
3 / 10 947 / 444 15 / 15	<i>Carmel Creek Rd.</i>	JUG 25 / 10 2 / 12 202 / 56																																																			
G H I																																																					
<i>Del Mar Trail</i>																																																					
10 / 5 10 / 5 10 / 4	CD C D D C D D	A BC 3 / 12 271 / 777 101 / 101 101																																																			

FIGURE 13-2

Year 2030 With Project (Build-out) AM/PM Peak Hour Traffic Volumes

TABLE 13-2

Year 2030 With Project (Build-out) Intersection Levels of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	El Camino Real / Via de la Valle	Signalized	23.1	C	20.4	C
2	El Camino Real / San Dieguito Road	Signalized	26.7	C	52.5	D
3	El Camino Real / Derby Downs Road	Signalized	4.3	A	5.1	A
4	El Camino Real / Half Mile Drive	Signalized	24.8	C	14.1	B
5	El Camino Real / Quarter Mile Drive	Signalized	25.2	C	12.7	B
6	Del Mar Heights Road / Mango Drive	Signalized	39.6	D	35.7	D
7	Del Mar Heights Road / Portofino Drive	Minor Street	10.1	B	10.1	B
8	Del Mar Heights Road / I-5 SB Ramps	Signalized	29	C	25.7	C
9	Del Mar Heights Road / I-5 NB Ramps	Signalized	107.1	F	94	F
10	Del Mar Heights Road / High Bluff Drive	Signalized	55.3	E	80.2	F
11	Del Mar Heights Road / Third Avenue	Signalized	8.3	A	20.7	C
12	Del Mar Heights Road / First Avenue	Signalized	7.7	A	20.9	C
13	Del Mar Heights Road / El Camino Real	Signalized	50.8	D	84.1	F
14	Del Mar Heights Road / Carmel Country Rd	Signalized	41.3	D	49.3	D
15	Del Mar Heights Road / Torrey Ridge Drive	Signalized	33.1	C	14.4	B
16	Del Mar Heights Road / Lansdale Drive	Signalized	41.1	D	20.9	C
17	Del Mar Heights Road / Carmel Canyon Rd	Signalized	29.8	C	17.2	B
18	El Camino Real / Del Mar Highlands Town Ctr.	Signalized	17.4	B	33.7	C
19	Carmel Country Road / Townsgate Drive	Signalized	32.9	C	34.6	C
20	Carmel Country Road / Townsgate Drive	Signalized	22.7	C	35.4	D
21	Carmel Country Road / Carmel Creek Rd	Signalized	45.7	D	21.5	C
22	El Camino Real / High Bluff Drive	Signalized	24.4	C	40	D
23	Carmel View Road / High Bluff Drive	All Way Stop	9.3	A	10.9	B
24	Carmel Creek Road / Carmel Grove Rd	Signalized	15.3	B	17.3	B
25	Carmel Valley Road / I-5 SB Ramps	Signalized	26.3	C	35.3	D
26	Carmel Valley Road / I-5 NB Ramps	Signalized	27.3	C	20.0	B
27	El Camino Real / Valley Centre Drive	Signalized	22.2	C	29.3	C
28	El Camino Real / Carmel Valley Rd	Signalized	22.2	C	19.2	B
29	El Camino Real / SR-56 EB On Ramp	Signalized	23.6	C	97.6	F
30	Carmel View Road / Valley Centre Drive	Signalized	7.7	A	6.2	A
31	Carmel Creek Road / SR-56 WB Ramp	Signalized	54.2	D	53.3	D
32	Carmel Creek Road / SR-56 EB Ramps	Signalized	15.0	B	23.4	C
33	Carmel Country Road / Carmel Canyon Rd	Signalized	36.6	D	34.1	C
34	Carmel Country Road / SR-56 WB Ramps	Signalized	17.1	B	12.7	B
35	Carmel Country Road / SR-56 EB Ramps	Signalized	22.0	C	18.7	B
36	Carmel Creek Road / Del Mar Trail	All Way Stop	48.3	E	23.6	C

Notes:

LOS = Level of Service

Orange indicates unacceptable levels of service

Intersection #36 reports the worst approach delay and level of service

TABLE 13-3

Year 2030 With Project (Build-out) Freeway Levels of Service

Segment	Lanes	Dir.	Cap.	ADT*	Peak Hour %	Dir. Split	Truck Factor	PHV	V/C	LOS
I-5										
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	NB	12,800	260,800	0.068	0.53	0.98	9,503	0.742	C
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	SB	12,800	260,800	0.067	0.55	0.98	9,809	0.766	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	NB	13,450	289,300	0.068	0.53	0.98	10,541	0.784	C
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	SB	13,450	289,300	0.067	0.55	0.98	10,881	0.809	D
Del Mar Heights Rd./ SR-56	6-GP+1-M	NB	15,780	306,100	0.068	0.53	0.98	11,153	0.707	C
Del Mar Heights Rd./ SR-56	6-GP+1-M	SB	15,780	306,100	0.067	0.55	0.98	11,513	0.730	C
SR-56/ Carmel Mountain Road	9-GP+1-M	NB	22,830	412,300	0.079	0.57	0.98	18,779	0.823	D
SR-56/ Carmel Mountain Road	8-GP+1-M	SB	20,480	412,300	0.080	0.55	0.98	18,443	0.901	D
Carmel Mountain Road/ I-805 Merge	10	NB	23,500	391,600	0.079	0.57	0.98	17,837	0.759	C
Carmel Mountain Road/ I-805 Merge	10	SB	23,500	391,600	0.080	0.55	0.98	17,517	0.745	C
SR-56										
El Camino Real / Carmel Creek Rd.	3-GP + 1-AX	EB	8,850	133,800	0.093	0.69	0.98	8,744	0.988	E
El Camino Real / Carmel Creek Rd.	3-GP + 1-AX	WB	8,850	133,800	0.094	0.70	0.98	8,967	1.013	F
Carmel Creek Rd. / Carmel Country Rd.	3-GP + 1-AX	EB	8,850	122,700	0.093	0.69	0.98	8,019	0.906	D
Carmel Creek Rd. / Carmel Country Rd.	3-GP + 1-AX	WB	8,850	122,700	0.094	0.70	0.98	8,223	0.929	E

Legend:

Dir.= Direction
 Cap. = Capacity
 ADT= Average Daily Traffic
 V/C= Volume to Capacity Ratio
 LOS= Level of Service
 PHV= Peak Hour Volume
 #-GP=# of General Purpose Lanes
 #-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1,680 vphpl taken from Caltrans Guide, December 2002)
 HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 vphpl
 * Based on SANDAG Series 11 Year 2030 Travel Forecast & SR-56 segments used cumulative rates.

Note:

Capacity for LOS "E" roadway is 2,350 vphpl.
 Taken from Transition between LOS"C" and LOS "D" criteria for Basic Freeway Segments @ 65 mi/hr in "Caltrans Guide for the Preparation of Traffic Impact Studies", December 2002
 AX = Auxiliary Lane with LOS "E" capacity of 1,800 vphpl
 Peak Hour % and Dir. Split taken from Caltrans internet posted Traffic Volumes

TABLE 13-4

Year 2030 With Project (Build-out) Ramp Meter Analysis

Most Restrictive Meter Rate

Location		Ramp Meter Lanes	Demand (Veh/Hr/Ln)	Meter Rate (Veh/Hr/Ln)	Excess Demand (Veh/Hr/Ln)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	2 SOV	660	368	292	47.61	8,468
	PM		551	368	183	29.84	5,307
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	1 SOV + 1 HOV	395	499	0	0	0
	PM		300	499	0	0	0
Del Mar Heights Rd. / I-5 NB on Ramp	AM	2 SOV	607	593	14	1.37	392
	PM		752	593	159	16.04	4,597
El Camino Real / SR-56 EB on Ramp	AM	2 SOV	705	1200	0	0.00	0
	PM		1296	1200	96	4.78	2,770
Carmel Country Rd. / SR-56 EB on Ramp	AM	2 SOV	670	900	0	0.00	0
	PM		624	900	0	0.00	0

NOTE:

The ramp meter rates at the EB on-ramps at El Camino Real & Carmel Country are based on SR-56 widened to 3 lanes in each direction per the Regional Transportation Plan which would allow more capacity on the freeway.

(Veh/Hr/Ln) = Vehicles per Hour per Lane

Meter rates are based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

Delay = (Demand - Meter Rate) / Meter Rate * 60 minutes/hour

Queue = Excess Demand * 29 feet/vehicle

SOV = Single Occupancy Vehicle

HOV = High Occupancy Vehicle

15 Minute Max. Meter Rate

Location		Ramp Meter Lanes	Demand (Veh/Hr/Ln)	Meter Rate (Veh/Hr/Ln)	Excess Demand (Veh/Hr/Ln)	Delay (Min)	Queue (Feet)
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound)	AM	2 SOV	660	492	168	20.5	4,872
	PM		551	320	231	43.3	6,699
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	1 SOV + 1 HOV	395	316	79	15.0	2,291
	PM		300	240	60	15.0	1,740
Del Mar Heights Rd. / I-5 NB on Ramp	AM	2 SOV	607	468	139	17.8	4,031
	PM		752	540	212	23.6	6,148
El Camino Real / SR-56 EB on Ramp	AM	2 SOV	705	560	145	15.5	4,205
	PM		1296	1023	273	16.0	7,903
Carmel Country Rd. / SR-56 EB on Ramp	AM	2 SOV	335	264	71	16.1	2,059
	PM		312	236	76	19.3	2,204

NOTE:

Meter Rate = Demand / 1.25

Excess Demand = Demand - Meter Rate

Queue = Excess Demand * 29 feet/vehicle

14.0 ACCESS ANALYSIS AND / ON-SITE ANALYSIS

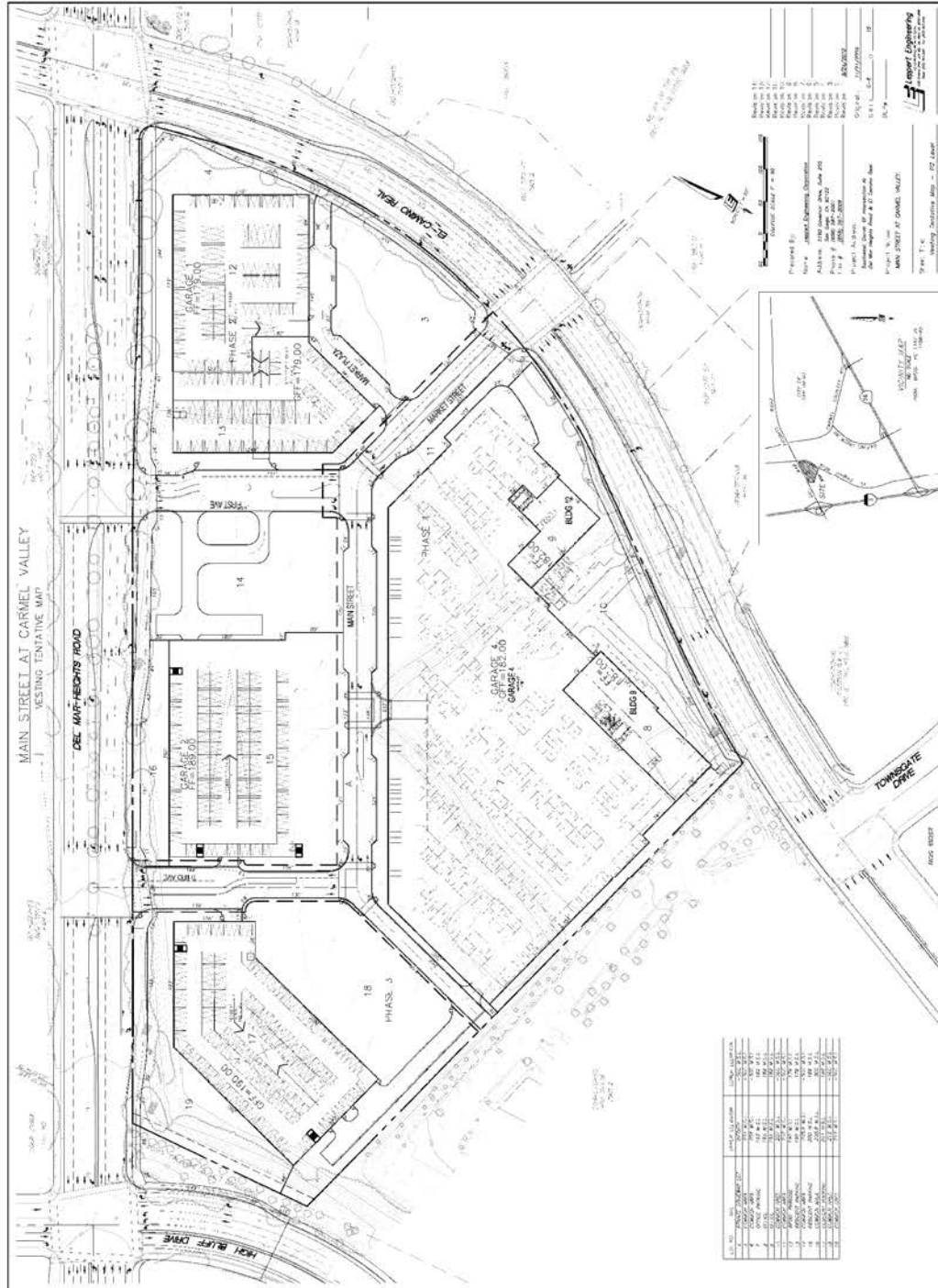
This section of the report will analyze the driveway, signal warrants, and pedestrian access to the project. The One Paseo project has access via Del Mar Heights Rd. and El Camino Real. A conceptual striping layout of the main access points on Del Mar Heights Rd. and El Camino Real is shown on **Figure 14-1**.

As shown on **Figure 14-1**, First Avenue and Third Avenue at Del Mar Heights Rd. intersections are proposed to be signalized. The intersection of El Camino Real and Del Mar Highlands Town Center is currently a T intersection and signalized. The construction of Market Street during Phase 1 will add the fourth leg to the signalized intersection. **Figure 14-1** shows the project site is proposing three signalized intersections. On El Camino Real, there are three access points that are right in / out only.

The access analysis has been divided into phases such as Project Phase 1, Project Phase 1 & 2, and Project Buildout. For each phase, the project distribution on-site, project only ADT, and peak hour traffic on Main Street is provided. In addition, the three on-site stop controlled intersections are analyzed and included in this section of the report. The worksheets for the internal streets and intersections can be found in **Appendix N**.

FIGURE 14-1

Conceptual Striping Layout



Project Phase 1:

For Project Phase 1, Blocks D & E are proposed to be completely built and First Avenue is assumed to be constructed. A peak hour signal warrant was evaluated for the Del Mar Heights Rd. / First Avenue access in the Near Term with Project (Project Phase 1) condition. Based on the evaluation, a signal is warranted at the First Avenue project access and is provided in **Appendix N**.

Lane configurations for the three stop controlled intersections on Main Street are illustrated on **Figure 14-2** which is adequate for build-out of the project.

Figure **14-3** shows the distribution percentages for Project Phase 1. The average daily traffic for each street on-site is shown on **Figure 14-4**. As shown in **Figure 14-4**, First Avenue has sufficient capacity for Project Phase 1 and future project traffic on-site.

FIGURE 14-2

Proposed Lane Configurations – Main Street

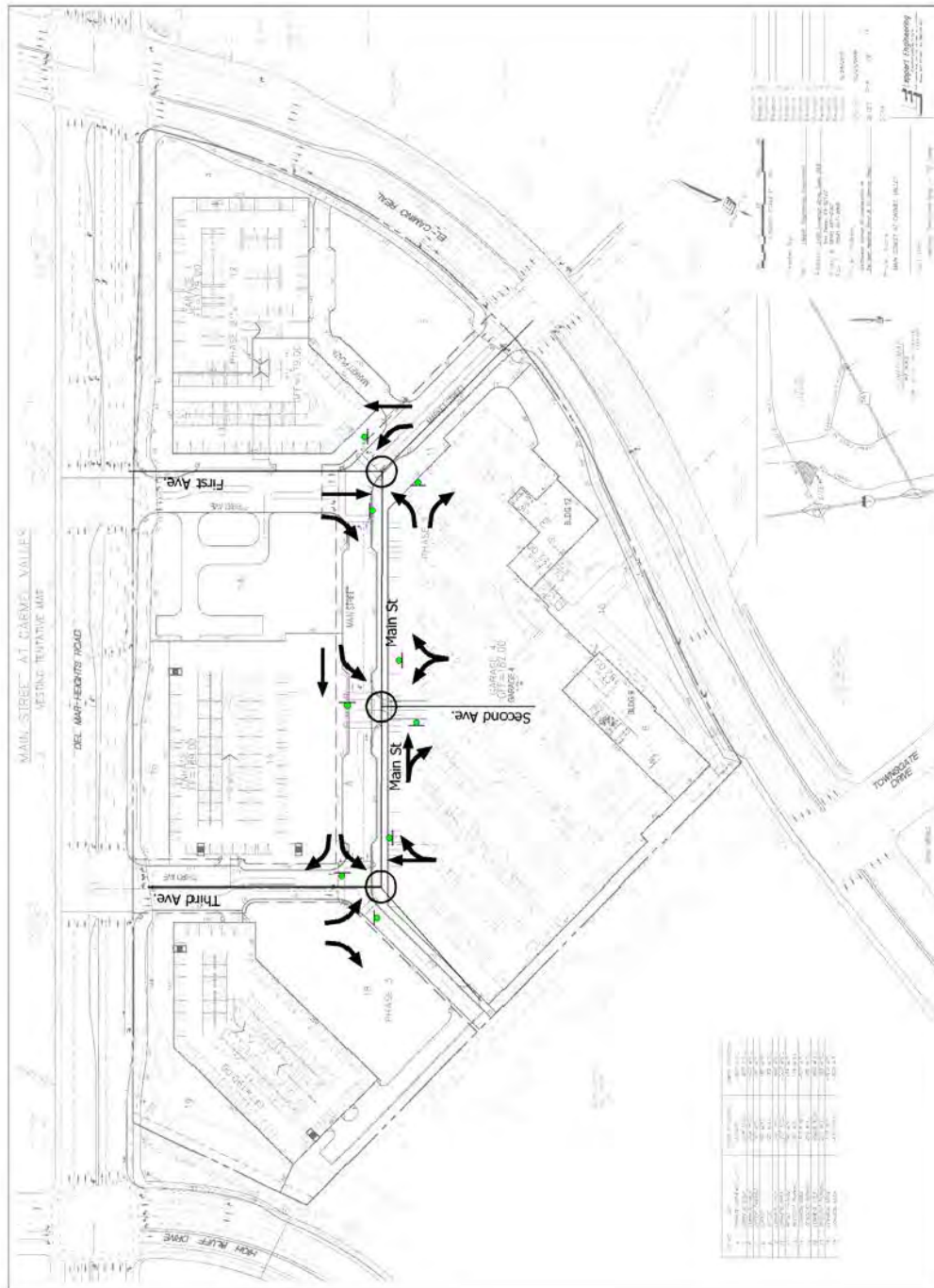


FIGURE 14-3
Distribution Percentages – Project Phase 1

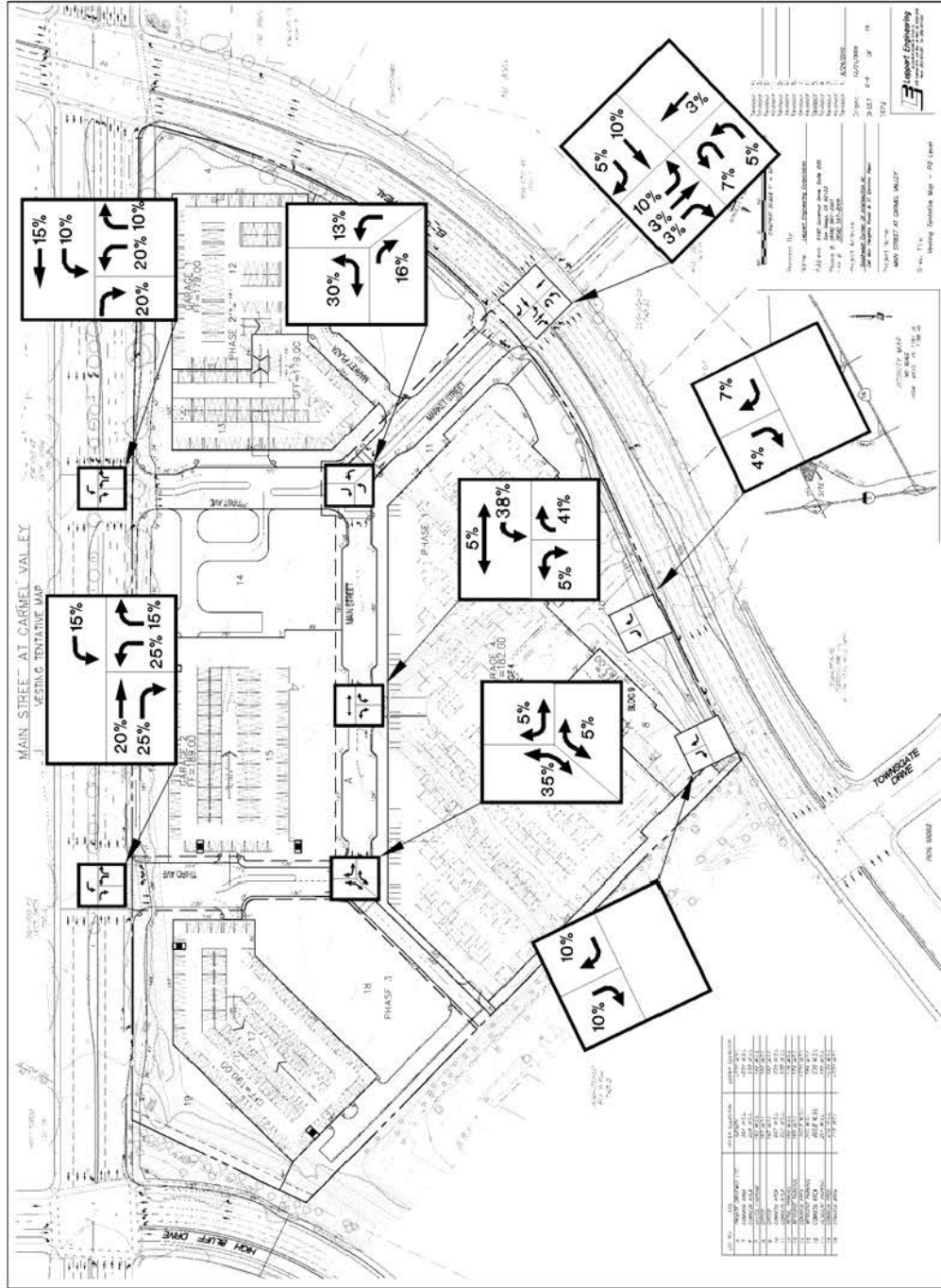
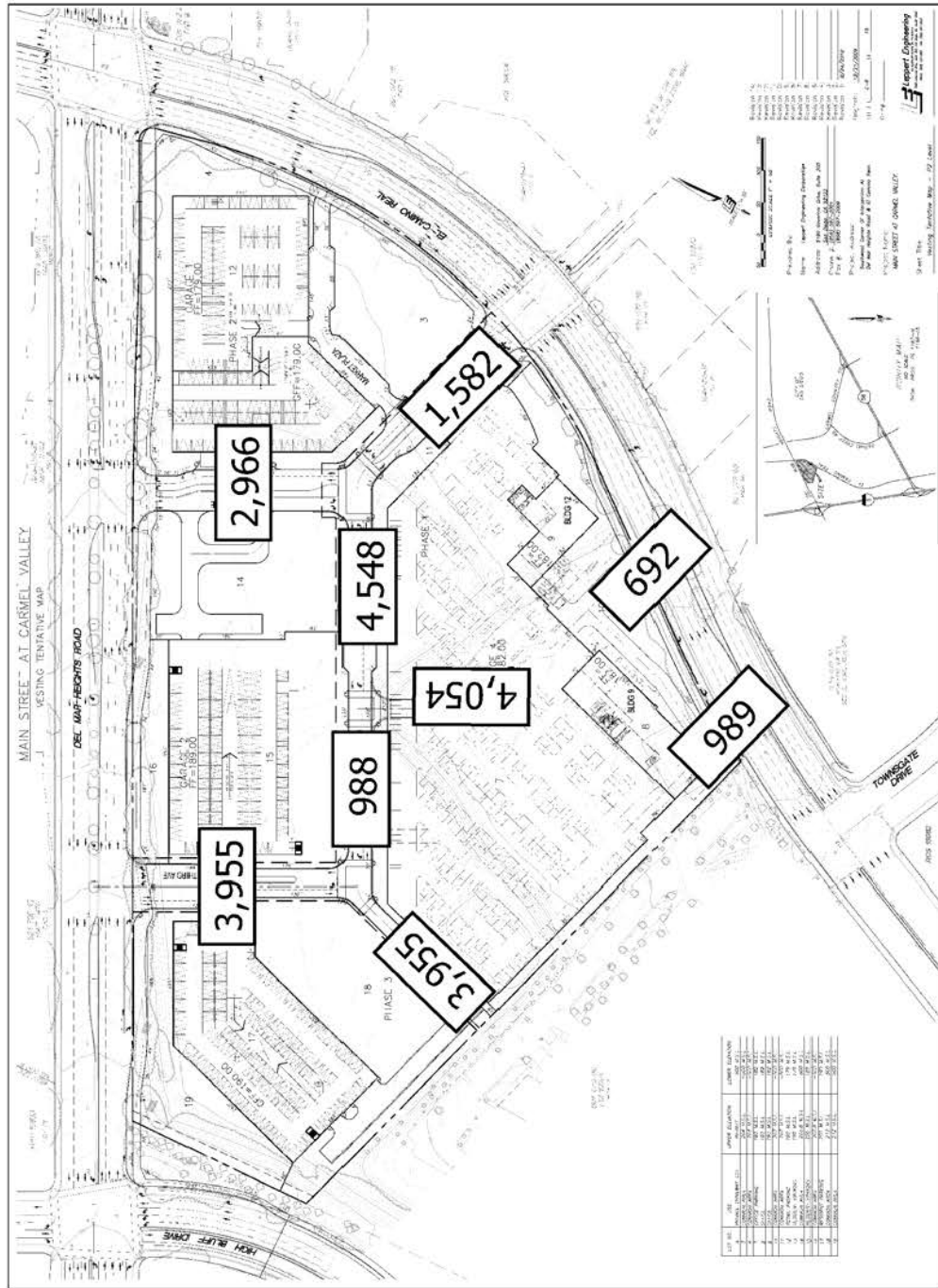


FIGURE 14-4
Average Daily Traffic – Project Phase 1



As shown on **Figure 14-4**, First Avenue is projected to have 2,966 ADT on a private driveway that has two lanes exiting onto Del Mar Heights Road and two lanes entering the project with a proposed 10 foot median. Third Avenue is projected to have 3,955 ADT in Phase 1 and provides access to parking structures in Blocks B & C. In Phase 1 of the project, 1,582 ADT is projected on Market Street with two lanes exiting and two lanes entering the project. Second Avenue provides access to the parking structure in Blocks D & E and is projected to have 4,054 ADT on the two lane private driveway. Main Street as a 2 lane private driveway with a two way left turn lane projected to have 4,548 ADT between First and Second Avenue in Phase 1. The AM/PM peak hour traffic volumes along with the lane configurations for intersections on Main Street are illustrated on **Figure 14-5**. As shown, all three stop controlled intersections are projected to operate at acceptable levels of service.

Project Phase 1 & 2:

For Project Phase 1 & 2, Blocks B, D, & E are proposed to be completely built. The total ADT for this phase is 17,812. The project distribution percentages during this phase are the same as build-out of the project which is explained in the next section.

Project Build-out:

For Project Build-out, Blocks A through E are proposed to be built. The project distribution percentages for full build-out of the project are shown on **Figure 14-6**. The average daily traffic for each driveway on-site is shown on **Figure 14-7**. The roadway classifications in previous phases are sufficient for build-out of the project. **Figure 14-8** shows the AM/PM peak hour traffic volumes along with the lane configurations proposed for the intersections on Main Street. As shown, all three stop controlled intersections on Main Street are projected to operate at acceptable levels of service.

FIGURE 14-5

AM/PM Peak Hour Traffic – Project Phase 1

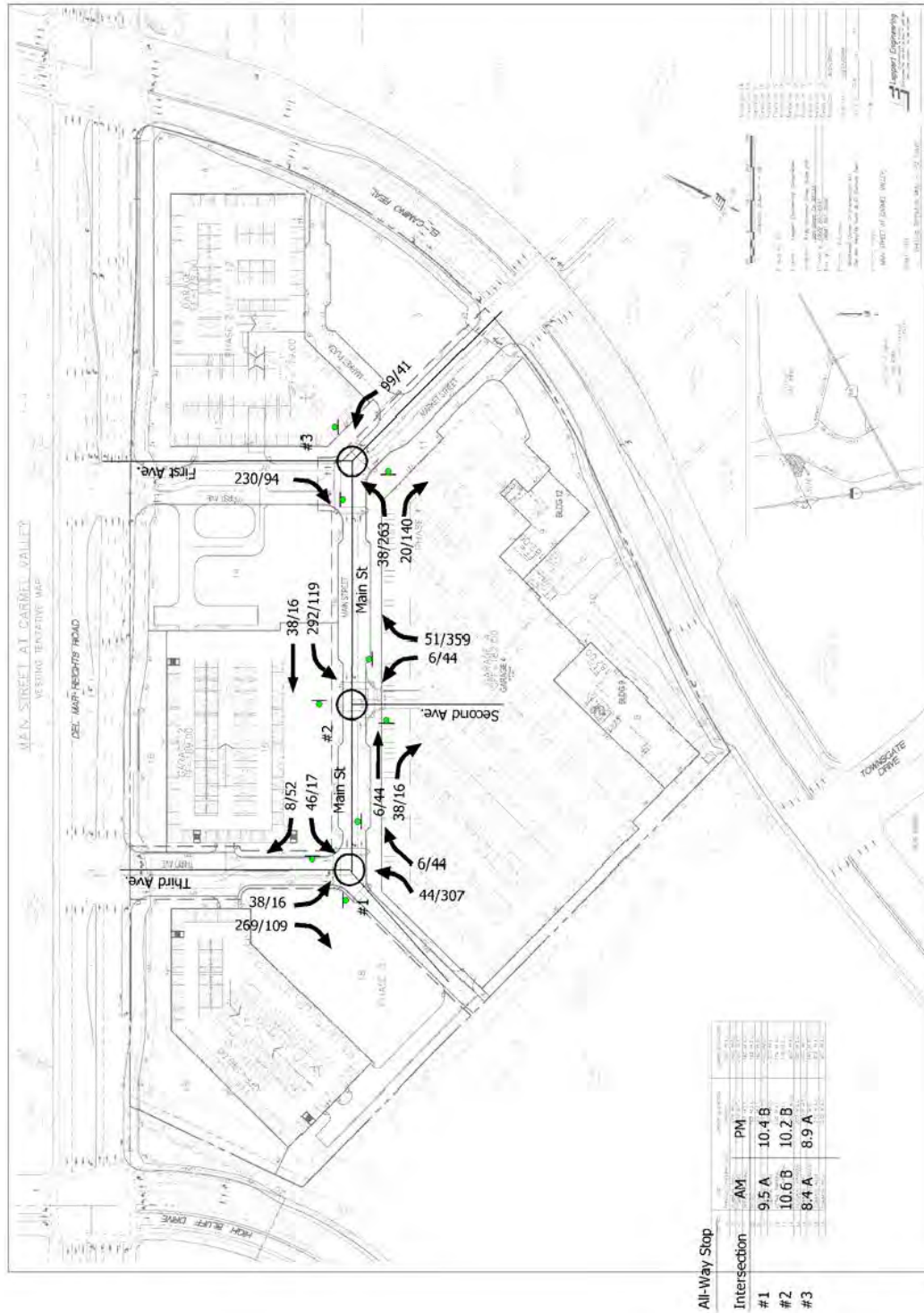


FIGURE 14-6
Distribution Percentages – Project Build-out

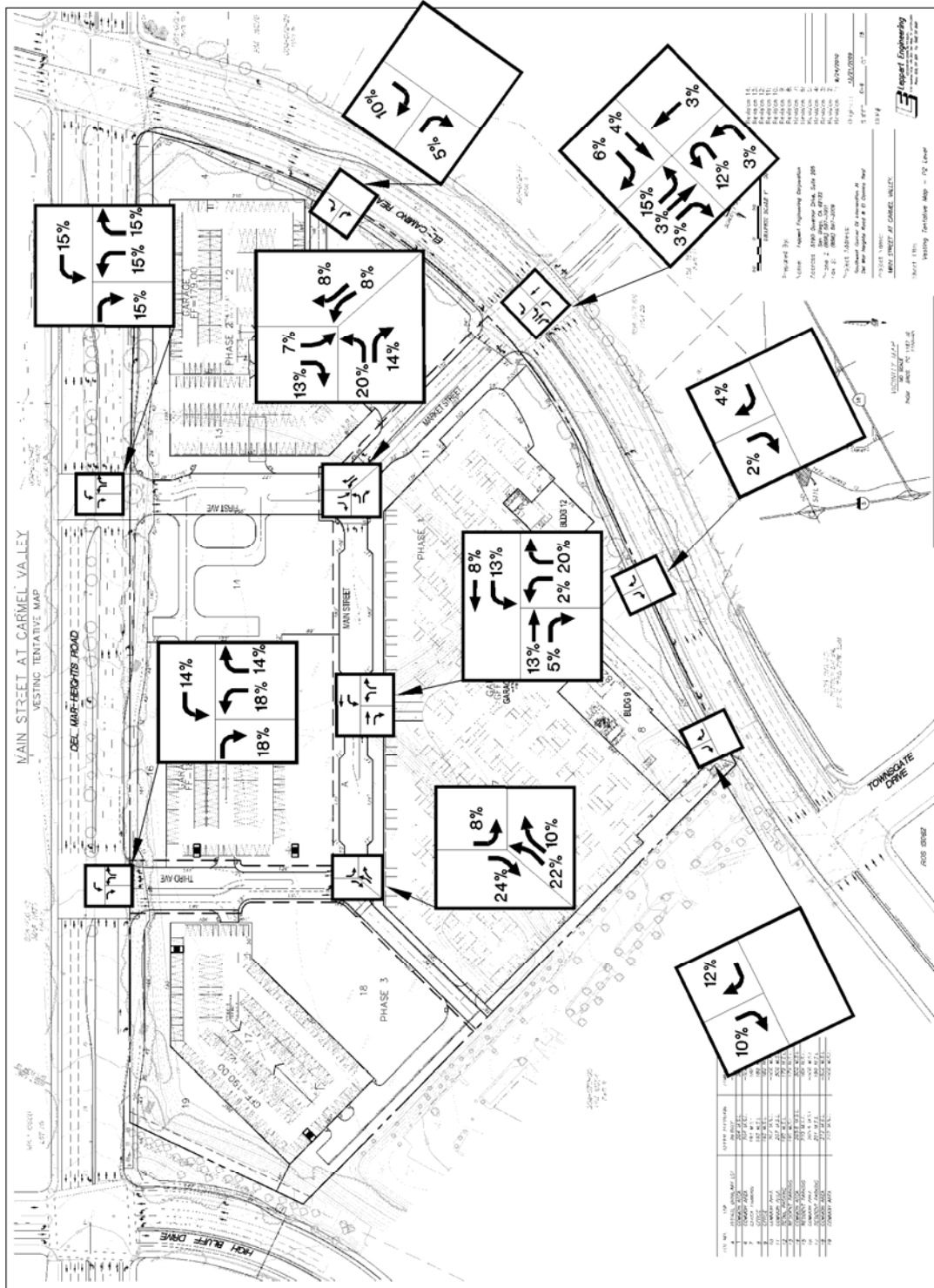


FIGURE 14-7
Average Daily Traffic – Project Build-out

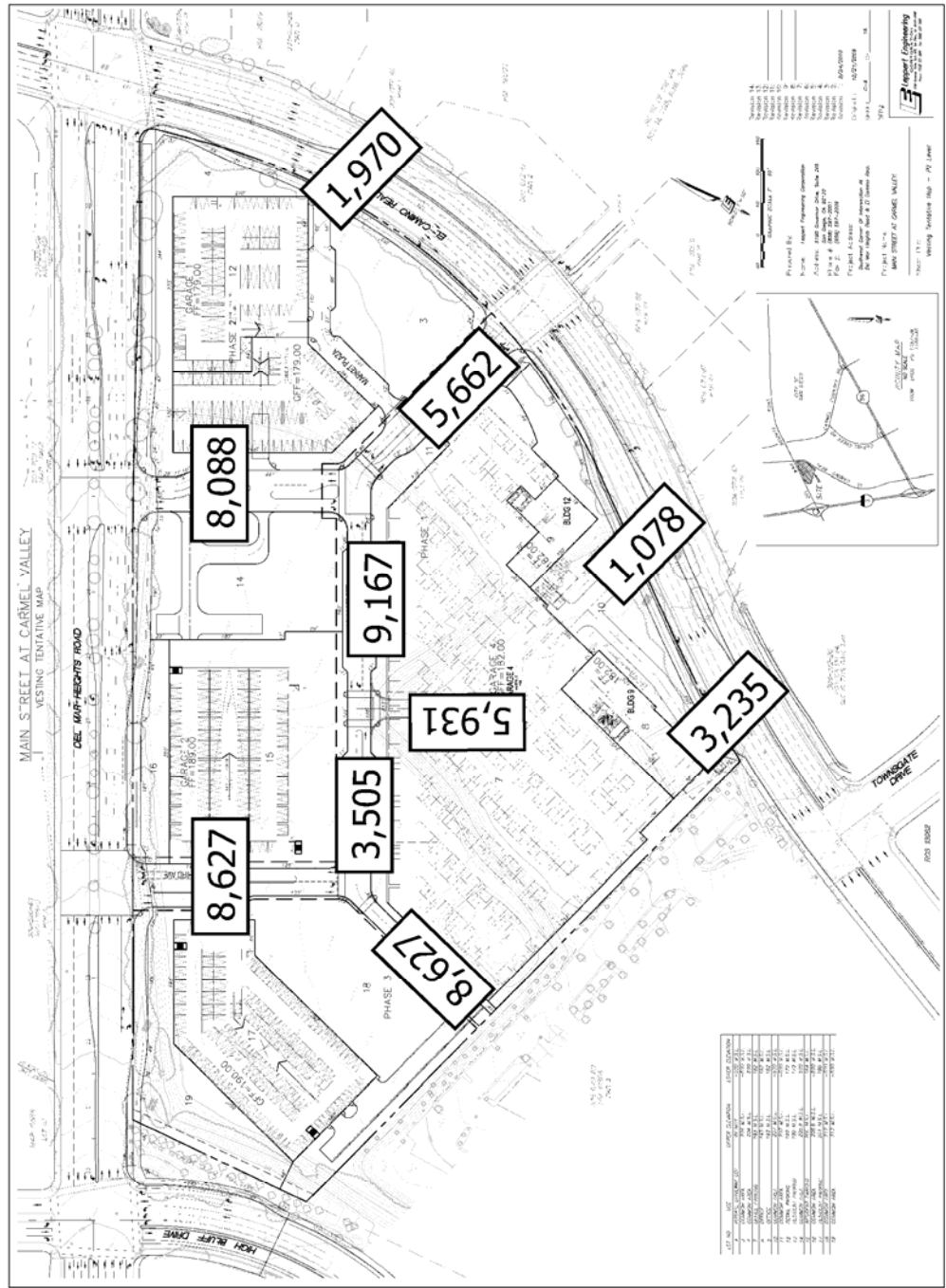
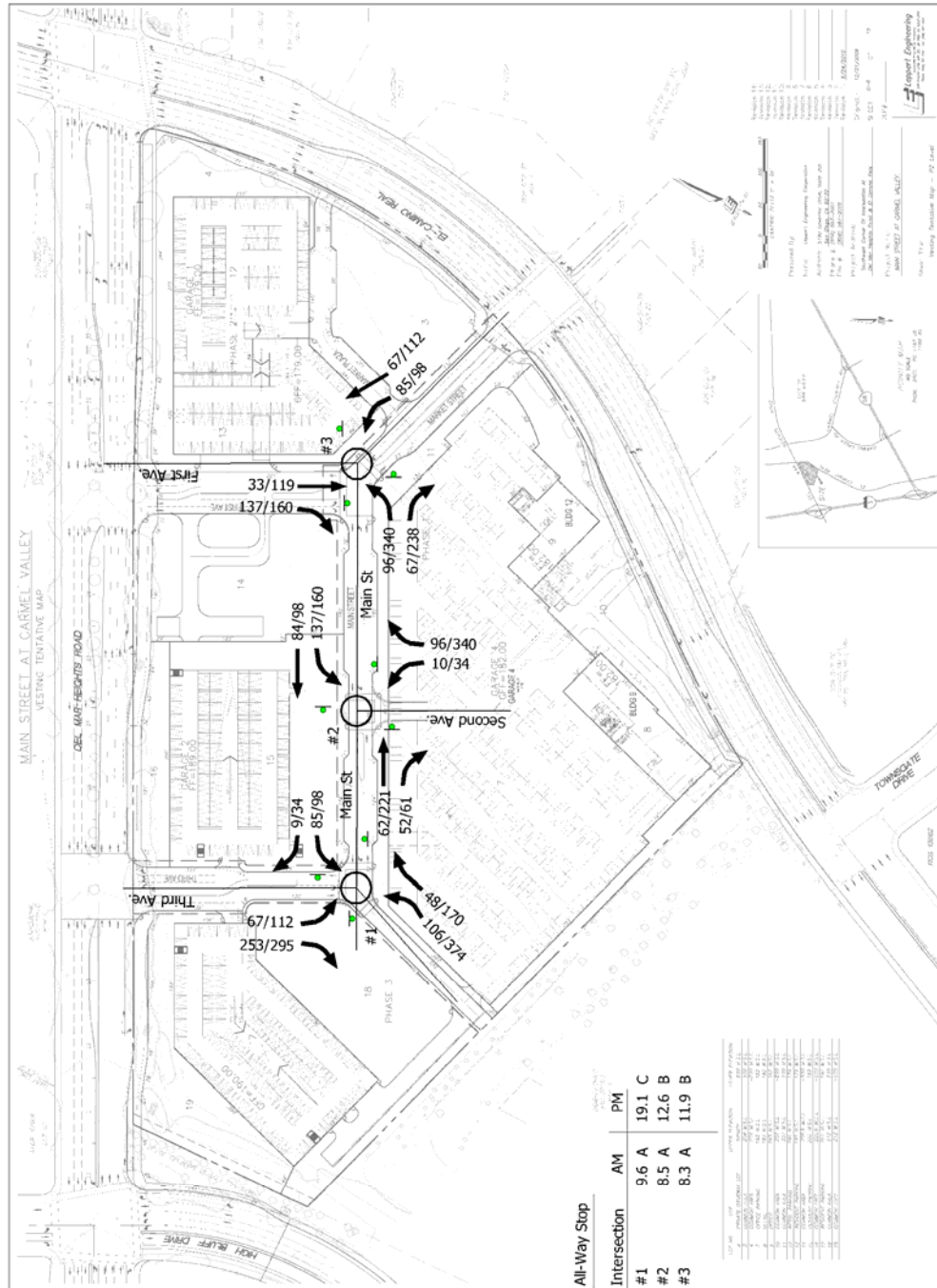


FIGURE 14-8
AM/PM Peak Hour Traffic – Project Build-out



14.2 DEL MAR HEIGHTS ROAD QUEUING ANALYSIS

The purpose of the queuing analysis is to show the validity of a coordinated signal system on Del Mar Heights Road from the I-5 ramps to El Camino Real. The queuing analysis includes both the AM and PM peak hours in the Year 2030 with Project scenario. Five intersections were evaluated along Del Mar Heights Road as a coordinated system. **Table 14-1** and **Table 14-2** shows the five intersections along Del Mar Heights Road in the AM and PM peak hour, respectively. The tables also show the 95th percentile queue and storage capacity for each turn movement in the eastbound and westbound direction along Del Mar Heights Road. The storage capacities assume project mitigation such as widening or lengthening of turn pockets at intersections.

The first intersection evaluated is Del Mar Heights Road at the I-5 northbound ramps which have adequate storage capacity in the westbound direction. In the eastbound direction, the through movement is highlighted to show the queue exceeds the storage capacity. Adaptive Traffic Control equipment can be utilized to minimize stops and optimize traffic flow through the Del Mar Heights Road corridor.

The second intersection evaluated is Del Mar Heights Road at High Bluff Drive. As shown on **Tables 14-1 & 2**, the storage capacity is sufficient for the queues in the eastbound and westbound direction. Dual left turns are proposed in the eastbound and westbound direction as shown in **Figure 14-9**. The eastbound approach is proposed to be widened by 2 feet on the south side of Del Mar Heights Road to accommodate the eastbound and westbound dual left turn lanes.

TABLE 14-1

Del Mar Heights Road Queuing / Capacity Table – AM Peak Hour

ONE PASEO												
Del Mar Heights Road Queuing Analysis Worksheet - Coordinated AM Peak Hour												
INTERSECTION	Eastbound						Westbound					
	Left		Through		Right		Left		Through		Right	
	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)
Del Mar Heights Rd. / I-5 NB Ramps	285	400	975	584	N/A	N/A	N/A	N/A	762	1,026	480	850
Del Mar Heights Rd. / High Bluff Dr.	41	200	402	1,026	148	250	149	175	547	555	N/A	N/A
Del Mar Heights Rd. / Third Ave.	N/A	N/A	74	555	0	186*	196	250*	161	473	N/A	N/A
Del Mar Heights Rd. / First Ave.	N/A	N/A	95	473	12	200*	107	420*	226	549	N/A	N/A
Del Mar Heights Rd. / El Camino Real	216	773**	264	549	261	365**	188	275	618	574	N/A	N/A

Notes:

N/A = Not Applicable

* Proposed improvements along project frontage when project access is constructed.

** A conceptual striping layout is shown in Figure 14-10.

TABLE 14-2

Del Mar Heights Road Queuing / Capacity Table – PM Peak Hour

ONE PASEO												
Del Mar Heights Road Queuing Analysis Worksheet - Coordinated PM Peak Hour												
INTERSECTION	Eastbound						Westbound					
	Left		Through		Right		Left		Through		Right	
	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)	95th % Queue Per Lane (ft)	Storage Length Per Lane (ft)
Del Mar Heights Rd. / I-5 NB Ramps	372	400	955	584	N/A	N/A	N/A	N/A	624	1,026	476	850
Del Mar Heights Rd. / High Bluff Dr.	104	200	820	1,026	11	250	51	175	442	555	N/A	N/A
Del Mar Heights Rd. / Third Ave.	N/A	N/A	439	555	58	186*	243	250*	150	473	N/A	N/A
Del Mar Heights Rd. / First Ave.	N/A	N/A	211	473	14	200*	85	420*	235	549	N/A	N/A
Del Mar Heights Rd. / El Camino Real	332	773**	513	549	222	365**	173	275	497	574	N/A	N/A

Notes:

N/A = Not Applicable

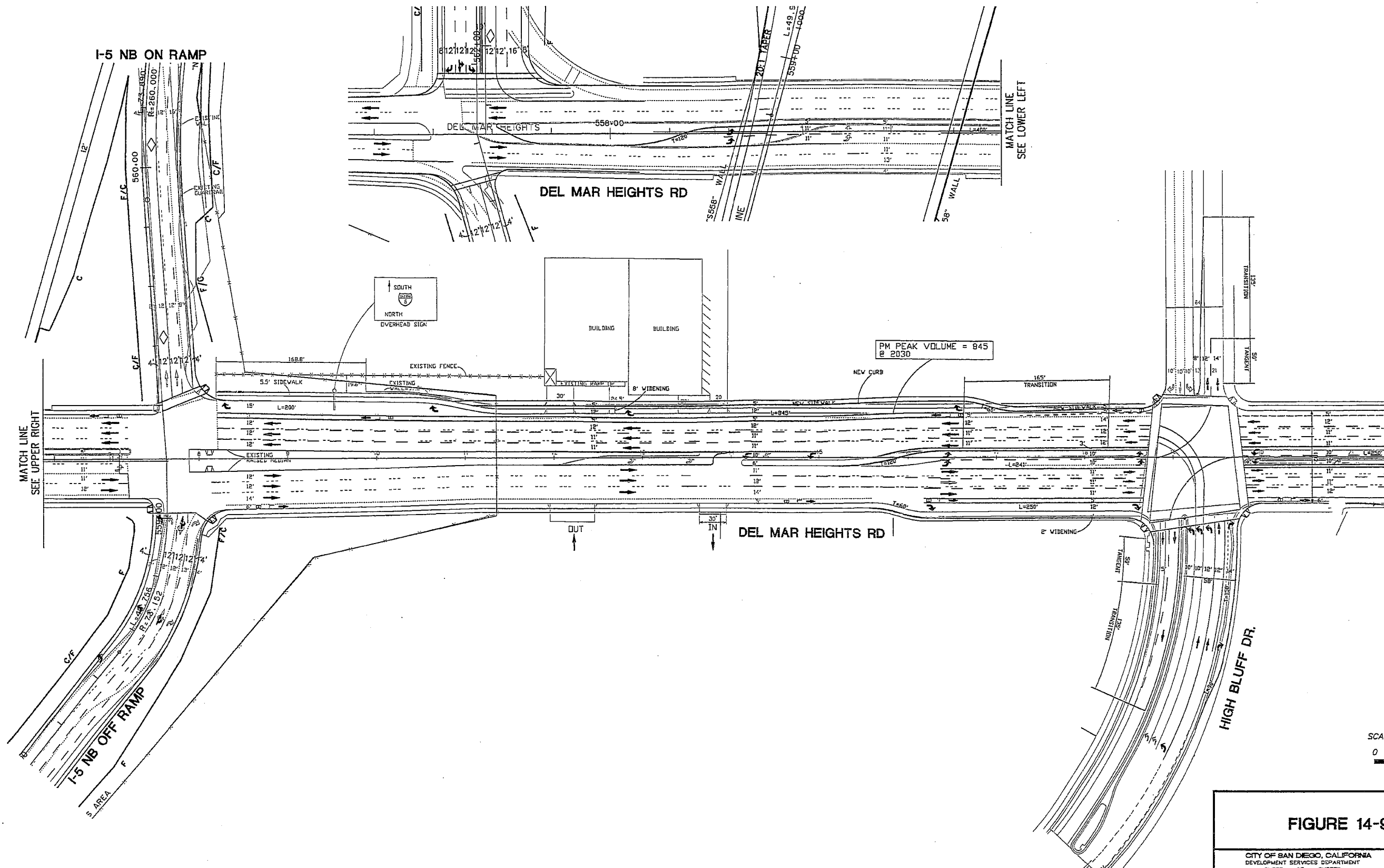
* Proposed improvements along project frontage when project access is constructed.

** A conceptual striping layout is shown in Figure 14-10.

(See Next Page)

FIGURE 14-9

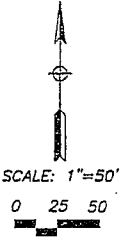
Conceptual Layout of Del Mar Heights Road at I-5 NB Ramps and High Bluff Drive



PM PEAK VOLUME = 845 @ 2030

MATCH LINE SEE UPPER RIGHT

MATCH LINE SEE LOWER LEFT



NOTE: PRELIMINARY OPINION OF COST BASED ON CONCEPTUAL PLANS WHICH ARE SUBJECT TO SIGNIFICANT CHANGE BASED ON AGENCY REVIEW AND APPROVAL.

CONCEPTUAL LAYOUT FOR DISCUSSION PURPOSES ONLY NOT BASED ON A SURVEY

URBAN SYSTEMS ASSOCIATES, INC.
4540 KARNY VILLA ROAD, SUITE 106
SAN DIEGO, CA 92133, (619) 580-4911

CITY OF SAN DIEGO, CALIFORNIA DEVELOPMENT SERVICES DEPARTMENT SHEET OF SHEETS						W.D. NO. _____	P.T.S. NO. _____
FOR CITY ENGINEER						DATE	
DESCRIPTION	BY	APPROVED	DATE	FILED	PID	EOT	
ORIGINAL	USAI					NO ADJUDICATION	
CONTRACTOR						DATE STARTED	
INSPECTOR						DATE COMPLETED	
						LAWYER COORDINATOR	

The intersections of Third and First Avenue at Del Mar Heights Road are signalized access points to the proposed One Paseo project, see **Figure 14-10**. In the eastbound direction on Del Mar Heights Road, the right turn pockets at Third and First Avenue are proposed to be 186 feet and 200 feet, respectively. In the westbound direction, the left turn pocket at Third Avenue is proposed to be 250 feet. The westbound to southbound dual left turn pocket at First Avenue provides a storage capacity of 420 feet. As shown in **Tables 14-1 & 2**, the eastbound and westbound movements on Del Mar Heights Road at Third and First Avenue have adequate storage for queue lengths project in the Year 2030 with Project.

At Del Mar Heights Road and El Camino Real, both the eastbound and westbound approaches have adequate storage capacity except for the westbound through movement in the AM peak hour. Further improvement in traffic flow can be obtained by using Adaptive Traffic Control equipment. In **Figure 14-10**, the conceptual layout shows the outside left turn lane lengthened to 546 feet. The fourth through lane closest to the median would provide additional storage if needed. The inside left turn lane remains the same length (227 feet) as exists today. To accommodate an eastbound to southbound right turn lane at El Camino Real, widening to the south is required and proposed in Phase 1 of the project. The proposed length of the right turn pocket is 365 feet which provides adequate storage for the queue projected in the Year 2030 with Project.

Queuing worksheets for each intersection evaluated in this section and the conceptual striping layouts of Del Mar Heights Road is included in **Appendix N**.

(See Next Page)

FIGURE 14-10
Conceptual Layout of Del Mar Heights Road at Third Ave. / First Ave. / El Camino
Real

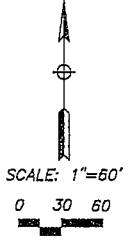
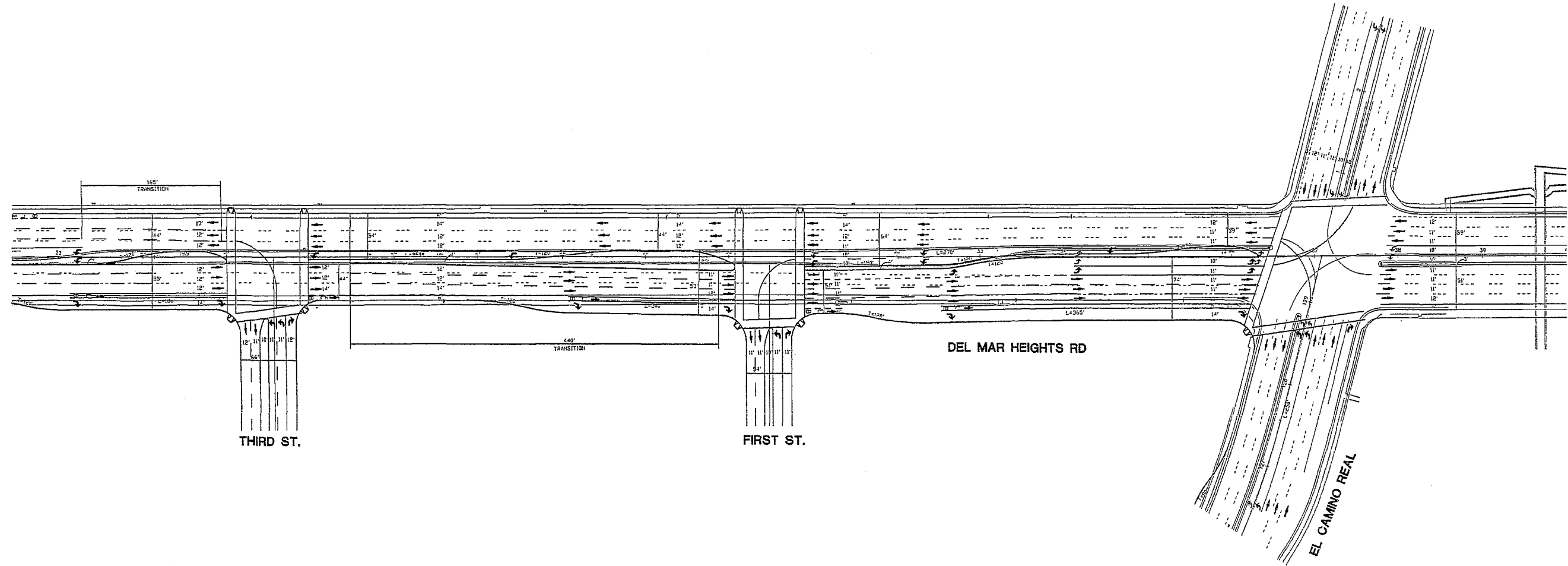


FIGURE 14-10

CITY OF SAN DIEGO, CALIFORNIA DEVELOPMENT SERVICES DEPARTMENT SHEET OF SHEETS				W.G. NO. _____ P.T.S. NO. _____
FOR CITY ENGINEER	DATE	DATE	DATE	DATE
DESCRIPTION	BY	APPROVED	DATE	FILED
ORIGINAL	USAI			
CONTRACTOR	DATE STARTED	DATE COMPLETED		
INSPECTOR				

**CONCEPTUAL LAYOUT
FOR DISCUSSION PURPOSES ONLY
NOT BASED ON A SURVEY**

URBAN SYSTEMS ASSOCIATES, INC.
4540 KEARNY VILLA ROAD, SUITE 106
SAN DIEGO, CA 92123, (619) 550-4911

NOTE: PRELIMINARY OPINION OF COST BASED ON CONCEPTUAL PLANS WHICH ARE SUBJECT TO SIGNIFICANT CHANGE BASED ON AGENCY REVIEW AND APPROVAL.

15.0 CONSTRUCTION TRAFFIC ANALYSIS / ADAPTIVE TRAFFIC CONTROL

CONSTRUCTION TRAFFIC IMPACTS

A full analysis of construction traffic impacts was also completed. See **Appendix O**. In **Appendix O**, it is recommended that a signalized construction access be built in advance of project construction. This approach assures that traffic impacts are minimized and preserves safety for both construction related and community related traffic.

Three construction phases and two combinations of phases were evaluated. All assumptions for the analysis are summarized in **Appendix O** and the analysis results are also summarized. In summary, the only construction traffic significant impact is a segment impact on Del Mar Heights Road between the I-5 NB ramps and High Bluff Drive. This significant impact on Del Mar Heights Road occurs under the analyzed construction (Phase 1-3) scenario. For a more complete and full discussion of these temporary impacts, please refer to the Draft Environmental Impact Analysis (DEIR).

For further discussion of upfront community benefits proposed by this project, please see the following discussion of Adaptive Traffic Central Systems (ATCS).

ADAPTIVE TRAFFIC CONTROL SYSTEMS (ATCS)

This traffic study confirms that existing traffic conditions, without any new project traffic on the street system, are nearing unacceptable levels. More specifically, Del Mar Heights Road today is nearing capacity between the I-5 interchange ramps and High Bluff Drive. The Del Mar Heights Road corridor between El Camino Real and I-5 is one of the busiest corridors in San Diego.

The project applicant, Kilroy Realty Corporation, upon learning of the existing condition, asked Urban Systems Assoc. Inc. to identify ways to improve not only the existing without project traffic condition but to enhance it in the future after the project is developed. By developing the project, some existing trips which now leave the community to satisfy their need for goods and services may remain local. The project itself will be able to meet some of those needs. Also, the project is proposing significant street improvements, and in particular improvements to the existing I-5 Del Mar Heights Road interchange. These improvements, with the approval of Caltrans, will be implemented during the earliest phases of the proposed project which provides both a community benefit and project benefit.

The implementation of an Adaptive Traffic Control System (ATCS) along the Del Mar Heights Road corridor at eight intersections from Mango Drive (West of I-5) to Signature point / Pacific Highlands Center Access (East of El Camino Real) is anticipated to immediately improve existing traffic flow. Kilroy proposes installation of the system at the time site construction begins prior to any project traffic.

Adaptive traffic control is an intelligent traffic control system which coordinates traffic signals. The system increases speeds, reduces stops, improves safety, reduces energy consumption and improves air quality. Recent studies show that for nearby Adaptive Systems in San Marcos and Temecula, delay is

reduced as much as 46%, stops are reduced as much as 39%, travel time is improved by almost 14% and fuel consumption is reduced by up to 18%.

For a more complete discussion of the technology, experience and before / after study results in San Marcos, Temecula, and other areas, please refer to **Appendix P**. Although before and after studies for the Del Mar Heights Road corridor are yet to be completed, based on studies and experience throughout the United States, Urban Systems Assoc. Inc. anticipates a 10 to 15% improvement in traffic flow when Adaptive Traffic Control Systems are implemented.

16.0 DEIR PROJECT ALTERNATIVES ANALYSIS

Five Draft Environmental Impact Report (DEIR) project alternatives were evaluated for this study. The five alternatives are fully described and discussed in the DEIR and the traffic analysis which was completed for the alternatives may be found in **Appendix Q** of this traffic report.

The five alternatives studied for traffic impacts were:

1. No Project / No Development (0 ADT).
2. No Project / Develop Under Existing Plans (6,497 ADT).
3. Commercial Only (22,843 ADT).
4. Medical Office / Senior Housing (23,650 ADT).
5. No Retail (10,480 ADT).

For each alternative that generates traffic, an Existing + Project, Near Term + Project, and Long Term Cumulative (Year 2030) + Project analysis was completed. The analysis included intersections, segments, freeway and ramp. For details, impacts and mitigation please see **Appendix Q** and the DEIR.

17.0 CINEMA PHASING ALTERNATIVES

The purpose of this section is to evaluate potential significant impacts as a result of the cinema having no more than 1,200 seats in no more than 10 screens moving from Phase 3 to Phase 1 or Phase 2. The proposed project as shown in the development summary, **Table 2-1**, shows the cinema currently in Phase 3. This section will be divided into two parts. First, the cinema will be evaluated in Phase 1, then in Phase 2 to determine any new significant project impacts.

Cinema in Phase 1:

The cinema in Phase 1 of the project generates 12,088 ADT with 894 trips in the AM peak hour and 1,428 trips in the PM peak hour as compared to Phase 1 without the cinema which would generate 9,888 ADT. **Table 17-1** shows the trip generation table including the cinema in Phase 1. The 10 screen cinema (1,200 seats) alone adds 2,200 ADT with 0 trips in the AM peak hour and 240 trips in the PM peak hour using ITE trip generation rates.

Street segments were evaluated in the Near Term with and without project (Phase 1) scenario to determine any change in significant impacts from the proposed project as a result of the cinema in Phase 1. As shown in **Table 17-2**, no new significant project segment impacts occur as a result of the cinema in Phase 1. The significant street segment impacts on Del Mar Heights Road, El Camino Real and Via de la Valle shown on **Table 9-1** are the same significant impacts without the cinema in Phase 1. So therefore, there is no change in mitigation for street segments if the cinema moved to Phase 1.

TABLE 17-1
Trip Generation Table
Cinema in Phase 1

Proposed Project - Phase 1 (Blocks D & E)

Use	Amount	Trip	ADT	AM Peak Hour					PM Peak Hour						
				%*	#	In	:Out	In	Out	%*	#	In	:Out	In	Out
Corporate Office	245,000 SF	10 /KSF	2,450	15%	368	9	: 1	331	37	15%	368	1	: 9	37	331
Multi-Tenant Office	291,000 SF	$\frac{\ln(T)=0.756}{\ln(x)+3.95}$	3,786	13%	492	9	: 1	443	49	14%	530	2	: 8	106	424
Retail	100,650 SF	40 /KSF	4,026	3%	121	6	: 4	72	48	9%	362	5	: 5	181	181
Cinema**	10 screens	220 /screen	2,200	0%	0	0	: 0	0	0	24	240	41	: 59	98	142
TOTAL			12,462		980			846	134		1,500			422	1,078

Mixed Use Reductions

Use	Amount	Trip	ADT	AM Peak Hour					PM Peak Hour						
				%*	#	In	:Out	In	Out	%*	#	In	:Out	In	Out
Corporate Office	245,000 SF	10 /KSF	2,450	15%	368	9	: 1	331	37	15%	368	1	: 9	37	331
Multi-Tenant Office	291,000 SF	$\frac{\ln(T)=0.756}{\ln(x)+3.95}$	3,786	13%	492	9	: 1	443	49	14%	530	2	: 8	106	424
Commercial Office Reduction %			3%		5%			5%	5%		4%			4%	4%
Sub-Total Commercial Office Reduction			187		43			39	4		36			6	30
Retail	100,650 SF	40 /KSF	4,026	3%	121	6	: 4	72	48	9%	362	5	: 5	181	181
Cinema**	10 screens	220 /screen	2,200	0%	0	0	: 0	0	0	24	240	41	: 59	98	142
Sub-Total Commercial Retail Reduction			187		43			39	4		36			6	30
TOTAL REDUCTION			374		86			78	8		72			12	60

Notes:

* = Source: City of San Diego Trip Generation Manual, May 2003

**= Cinema is assumed to have no more than 1,200 seats in 10 screens. Using City of San Diego Trip Generation rate of 1.8 trips per seat, then 1,200 seats would generate 2,160 ADT with 6 AM peak hour trips and 173 PM peak hour trips. The results of the analysis in this phase would not change based on using the City's rate. ITE rates were used for the Cinema, refer to ITE Trip Generation, 8th Edition, Land Use #443.

KSF = 1,000 Square Foot

TABLE 17-1
Trip Generation Table
Cinema in Phase 1

Condition	ADT	NET NEW TRIPS					
		AM Peak Hour			PM Peak Hour		
		#	In	Out	#	In	Out
Proposed Project	12,462	980	846	134	1,500	422	1,078
Mixed Use Reductions	374	86	78	8	72	12	60
TOTAL	12,088	894	768	126	1,428	410	1,018

TABLE 17-2

Near Term With & Without Project (Phase 1) Street Segment Summary

Cinema in Phase 1

Road	Segment	Class.	Near Term			Near Term + Project (Phase 1)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,953	0.488	B	23,041	0.512	0.024	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	37,169	0.743	C	38,619	0.772	0.029	NO
	I-5 SB Ramps and I-5 NB Ramps	5-PA	D	41,293	0.826	D	43,831	0.877	0.051	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	54,775	0.913	E	59,489	0.991	0.079	YES
	High Bluff Drive to El Camino Real	PA	C	40,648	0.677	C	46,088	0.768	0.091	NO
	El Camino Real to Carmel Country Road	PA	B	33,654	0.561	C	36,918	0.615	0.054	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	22,308	0.372	A	23,879	0.398	0.026	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,643	0.327	A	20,731	0.346	0.018	NO
	Lansdale Drive to Carmel Canyon Road	PA	A	15,644	0.261	A	16,248	0.271	0.010	NO
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	16,235	1.082	F	16,598	1.107	0.024	YES
	San Dieguito Road to Derby Downs Road	4-M	A	14,332	0.358	A	14,816	0.370	0.012	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,793	0.395	B	16,277	0.407	0.012	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,921	0.348	A	14,526	0.363	0.015	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	B	15,373	0.384	B	16,098	0.402	0.018	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	17,014	0.340	A	18,827	0.377	0.036	NO
	Townsgate Drive to High Bluff Drive	6-M	A	16,662	0.333	A	18,233	0.365	0.031	NO
	High Bluff Drive to Valley Centre Drive	6-M	B	21,035	0.421	B	22,123	0.442	0.022	NO
	Valley Centre Drive to Carmel Valley Road	5-M	C	30,131	0.670	C	30,856	0.686	0.016	NO
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	16,410	0.410	B	17,619	0.440	0.030	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	14,294	0.357	B	15,261	0.382	0.024	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,531	0.338	A	14,136	0.353	0.015	NO
	Carmel Canyon Road to SR-56 WB Ramps	4-M	C	21,170	0.529	C	21,653	0.541	0.012	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	4-M	A	12,591	0.315	A	12,832	0.321	0.006	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,542	0.289	A	11,905	0.298	0.009	NO
	Carmel Grove Road to SR-56 WB Ramps	4-M	B	15,933	0.398	B	16,296	0.407	0.009	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	11,826	0.394	B	11,947	0.398	0.004	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	45,968	0.766	C	46,210	0.770	0.004	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	D	10,137	0.676	D	10,500	0.700	0.024	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	26,732	2.673	F	26,974	2.697	0.024	YES

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

Intersections were evaluated in the Near Term with and without project (Phase 1) scenario to determine any change in significant impacts from the proposed project as a result of the cinema in Phase 1 rather than Phase 3. As shown in **Table 17-3**, there is one (1) new significant impact at the intersection of Del Mar Heights Road and High Bluff Drive. This intersection impact is a result of the cinema in Phase 1, compare **Table 17-3** with **Table 1-16**. Since the intersection of Del Mar Heights Road at High Bluff Drive is significantly impacted, mitigation is required. The proposed mitigation for this intersection is a widening of Del Mar Heights Road receiving lanes and a restriping of the northbound lanes to provide a third left and a signal modification. This mitigation would move to Phase 1 rather than Phase 2 as shown in **Table 1-29**, and fully mitigate the impact.

Ramp meters were evaluated in the Near Term with and without project (Phase 1) scenario to determine any change in significant impacts from the proposed project as a result of the cinema in Phase 1 rather than Phase 3. As shown in **Table 17-4**, there are no new significant ramp meter impacts as a result of the cinema in Phase 1. Freeways in Phase 1 are assumed to have no significant impacts as a result of the cinema in Phase 1 since Phase 2 with the cinema shows no significant impacts discussed in the next section and all freeway segments operate at acceptable levels of service.

Cinema in Phase 2:

The cinema in Phase 2 of the project generates 20,012 ADT with 1,182 trips in the AM peak hour and 2,261 trips in the PM peak hour. **Table 17-5** shows the trip generation table including the cinema in Phase 2. The 10 screen (1,200 seats) cinema alone adds 2,200 ADT with 0 trips in the AM peak hour and 240 trips in the PM peak hour.

TABLE 17-3

Near Term With & Without Project (Phase 1) Intersection Summary

Cinema in Phase 1

#	Intersection	Near Term				Near Term + Project (Phase 1)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	31.4	C	43.6	D	31.9	C	0.5	N	44.9	D	1.3	N
2	El Camino Real / San Dieguito Road	16.9	B	25.2	C	17.1	B	0.2	N	27.5	C	2.3	N
3	El Camino Real / Derby Downs Road	4.3	A	4.5	A	4.3	A	0.0	N	5.0	A	0.5	N
4	El Camino Real / Half Mile Drive	20.6	B	18.0	B	21.7	C	1.1	N	18.8	B	0.8	N
5	El Camino Real / Quarter Mile Drive	20.6	C	15.1	B	21.8	C	1.2	N	15.6	B	0.5	N
6	Del Mar Heights Road / Mango Drive	33.3	C	31.4	C	34.5	C	1.2	N	33.7	C	2.3	N
7	Del Mar Heights Road / Portofino Drive	9.4	A	9.2	A	9.6	A	0.2	N	9.3	A	0.1	N
8	Del Mar Heights Road / I-5 SB Ramps	24.8	C	23	C	29.6	C	4.8	N	25.1	C	2.1	N
9	Del Mar Heights Road / I-5 NB Ramps	39.6	D	38.3	D	50.5	D	10.9	N	45.6	D	7.3	N
10	Del Mar Heights Road / High Bluff Drive	28.5	C	32.1	C	28.9	C	0.4	N	56.8	E	24.7	Y
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	5.9	A	0.0	N	11.5	B	0.0	N
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	4.2	A	0.0	N	11.9	B	0.0	N
13	Del Mar Heights Road / El Camino Real	29.9	C	29.5	C	32.1	C	2.2	N	39.8	D	10.3	N
14	Del Mar Heights Road / Carmel Country Rd	22.9	C	21.1	C	25.7	C	2.8	N	24.3	C	3.2	N
15	Del Mar Heights Road / Torrey Ridge Drive	23.6	C	11.9	B	24.8	C	1.2	N	18.1	B	6.2	N
16	Del Mar Heights Road / Lansdale Drive	19	B	17.6	B	20.4	C	1.4	N	18.3	B	0.7	N
17	Del Mar Heights Road / Carmel Canyon Rd	13.8	B	10.2	B	13.9	B	0.1	N	10.3	B	0.1	N
18	El Camino Real / Del Mar Highlands Town Ctr.	6.8	A	13.5	B	14	B	7.2	N	23	C	9.5	N
19	Carmel Country Road / Townsgate Drive	26.5	C	21.8	C	27.2	C	0.7	N	27.2	C	5.4	N
20	El Camino Real / Townsgate Drive	20.8	C	20.7	C	20.8	C	0.0	N	20.9	C	0.2	N
21	Carmel Country Road / Carmel Creek Rd	58.6	E	24.1	C	60.4	E	1.8	N	26.4	C	2.3	N
22	El Camino Real / High Bluff Drive	21.1	C	26.2	C	23.3	C	2.2	N	27.9	C	1.7	N
23	Carmel View Road / High Bluff Drive	8.4	A	9.1	A	8.6	A	0.2	N	9.5	A	0.4	N
24	Carmel Creek Road / Carmel Grove Rd	27.8	C	17.5	B	27.8	C	0.0	N	17.6	B	0.1	N
25	Carmel Valley Road / I-5 SB Ramps	22.6	C	32.1	C	23.1	C	0.5	N	32.3	C	0.2	N
26	Carmel Valley Road / I-5 NB Ramps	13.6	B	20.4	C	13.7	B	0.1	N	20.5	C	0.1	N
27	El Camino Real / Valley Centre Drive	24.6	C	23.2	C	25	C	0.4	N	30.1	C	6.9	N
28	El Camino Real / Carmel Valley Rd	14.8	B	19.2	B	16.4	B	1.6	N	19.6	B	0.4	N
29	El Camino Real / SR-56 EB On Ramp	18	B	32.3	C	18.2	B	0.2	N	34.3	C	2.0	N
30	Carmel View Road / Valley Centre Drive	7.4	A	8.3	A	7.4	A	0.0	N	8.3	A	0.0	N
31	Carmel Creek Road / SR-56 WB Ramp	45.7	D	27	C	46.3	D	0.6	N	27.1	C	0.1	N
32	Carmel Creek Road / SR-56 EB Ramps	12.5	B	27.4	C	12.6	B	0.1	N	27.5	C	0.1	N
33	Carmel Country Road / Carmel Canyon Rd	33.1	C	25.6	C	35.7	D	2.6	N	26	C	0.4	N
34	Carmel Country Road / SR-56 WB Ramps	16.2	B	10.9	B	16.3	B	0.1	N	11.6	B	0.7	N
35	Carmel Country Road / SR-56 EB Ramps	14.1	B	11.7	B	14.1	B	0.0	N	12	B	0.3	N
36	Carmel Creek Road / Del Mar Trail	47.9	E	21.7	C	50.8	F	2.9	Y	22.9	C	1.2	N

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

DNE = Does not Exist

For Intersection #36, the worst approach delay and level of service was reported.

TABLE 17-4

Near Term With & Without Project (Phase 1) Ramp Meter Summary

Cinema in Phase 1

Most Restrictive Meter Rate

Cinema in Phase 1 - Alternative

Location		Near Term		Near Term + Project (Phase 1)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	9.29	1,653	11.17	1,987	1.88	NO
	PM	0.00	0	5.46	972	5.46	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	1.92	551	1.92	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, if change in delay is greater than 2 minutes and delay is greater than 15 minutes

TABLE 17-5

Trip Generation Table

Cinema in Phase 2

**Cinema Alternative in Phase 2
Proposed Project (Blocks A, D, & E)**

Use	Amount	Trip	ADT	AM Peak Hour					PM Peak Hour				
				%*	#	In	Out	In	Out	%*	#	In	Out
Corporate Office	245,000 SF	10 /KSF	2,450	15%	368	9 : 1	331	37	15%	368	1 : 9	37	331
Multi-Tenant Office	291,000 SF	$\frac{\ln(T) = 0.756}{\ln(x) + 3.95}$	3,786	13%	492	9 : 1	443	49	14%	530	2 : 8	106	424
Community Shopping Center	166,260 SF	Blended Rate**	11,019	3%	331	6 : 4	198	132	10%	1,102	5 : 5	551	551
Multi-Family Residential	194 DU	6 /DU	1,164	8%	93	2 : 8	19	74	10%	116	7 : 3	81	35
Cinema ¹	10 screens	220 /screen	2,200	0%	0	0 : 0	0	0	24	240	41 : 59	98	142
TOTAL			20,619		1,283		991	293		2,356		873	1,483

Mixed Use Reductions

Use	Amount	Trip	ADT	AM Peak Hour					PM Peak Hour				
				%*	#	In	Out	In	Out	%*	#	In	Out
Corporate Office	245,000 SF	10 /KSF	2,450	15%	368	9 : 1	331	37	15%	368	1 : 9	37	331
Multi-Tenant Office	291,000 SF	$\frac{\ln(T) = 0.756}{\ln(x) + 3.95}$	3,786	13%	492	9 : 1	443	49	14%	530	2 : 8	106	424
Commercial Office Reduction %			3%		5%		5%	5%		4%		4%	4%
Sub-Total Commercial Office Reduction			187		43		39	4		36		6	30
Multi-Family Residential	194 DU	6 /DU	1,164	8%	93	2 : 8	19	74	10%	116	7 : 3	81	35
Residential Reduction %			10%		8%		8%	8%		10%		10%	10%
Sub-Total Residential Reduction			116		7		1	6		12		8	3
Community Shopping Center	166,260 SF	Blended Rate**	11,019	3%	331	6 : 4	198	132	10%	1,102	5 : 5	551	551
Cinema ¹	10 screens	220 /screen	2,200	0%	0	0 : 0	0	0	24	240	41 : 59	98	142
Commercial Retail Reduction			303		50		40	10		48		14	34
Sub-Total Commercial Retail Reduction			12,916		280		158	122		1,294		635	659
TOTAL REDUCTION			607		101		80	21		95		28	67

Notes:

* = Source: City of San Diego Trip Generation Manual, May 2003

** = Blended Rate: 100,650 sf @ 40/ksf = 4,026 ADT and 30,000 sf @ 150/ksf = 4,500 ADT, and 35,610 sf @ 70/ksf = 2,493 ADT; total ADT is 11,019.

¹ = Cinema is assumed to have no more than 1,200 seats in 10 screens. Using City of San Diego Trip Generation rate of 1.8 trips per seat, then 1,200 seats would generate 2,160 ADT with 6 AM peak hour trips and 173 PM peak hour trips. The results of the analysis in this phase would not change based on using the City's rate. ITE Rates were used for the Cinema, refer to the ITE Trip Generation, 8th Edition, Land Use #443.

DU = Dwelling Unit

KSF = 1,000 Square Foot

TABLE 17-5
Trip Generation Table
Cinema in Phase 2

NET NEW TRIPS

Condition	ADT	AM Peak Hour			PM Peak Hour		
		#	In	Out	#	In	Out
Proposed Project	20,619	1,283	991	293	2,356	873	1,483
Mixed Use Reductions	607	101	80	21	95	28	67
TOTAL	20,012	1,182	910	272	2,261	845	1,415

Cinema in Phase 2 cont.

Street segments were evaluated in the Near Term with and without project (Phase 2) scenario to determine any change in significant impacts from the proposed project as a result of the cinema in Phase 2. As shown in **Table 17-6**, no new significant project segment impacts occur as a result of the cinema in Phase 2, compare with **Table 1-14**. So therefore, there is no change in mitigation for street segments if the cinema moved to Phase 2.

Intersections were evaluated in the Near Term with and without project (Phase 2) scenario to determine any change in significant impacts from the proposed project as a result of the cinema in Phase 2 rather than Phase 3. As shown in **Table 17-7**, there are no new significant impacts at any of the intersections as a result of the cinema in Phase 2, compared with **Table 1-17**. So therefore, there is no change in mitigation for intersections if the cinema moved to Phase 2.

Ramp meters were evaluated in the Near Term with and without project (Phase 2) scenario to determine any change in significant impacts from the proposed project as a result of the cinema in Phase 2, compare with **Table 1-23**. As shown in **Table 17-8**, there are no new significant impacts to ramp meters.

Freeway segments were evaluated in the Near Term with and without project (Phase 1 & 2) scenario to determine any change in significant impacts from the proposed project as a result of the cinema in Phase 2, compare with **Table 1-20**. As shown in **Table 17-9**, there are no new significant impacts to freeway segments.

TABLE 17-6

Near Term With & Without Project (Phase 1 & 2) Street Segment Summary

Cinema in Phase 2

Road	Segment	Class.	Near Term			Near Term + Project (Phase 1 & 2)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume*	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,953	0.488	B	23,489	0.522	0.034	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	37,169	0.743	C	39,216	0.784	0.041	NO
	I-5 SB Ramps and I-5 NB Ramps	5-PA	D	41,293	0.826	D	44,876	0.898	0.072	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	54,775	0.913	F	61,429	1.024	0.111	YES
	High Bluff Drive to El Camino Real	PA	C	40,648	0.677	C	49,654	0.828	0.150	NO
	El Camino Real to Carmel Country Road	PA	B	33,654	0.561	C	38,261	0.638	0.077	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	22,308	0.372	A	24,526	0.409	0.037	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,643	0.327	A	21,179	0.353	0.026	NO
	Lansdale Drive to Carmel Canyon Road	PA	A	15,644	0.261	A	16,497	0.275	0.014	NO
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	B	16,235	0.406	F	16,747	1.116	0.711	YES
	San Dieguito Road to Derby Downs Road	4-M	A	14,332	0.358	B	15,015	0.375	0.017	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,793	0.395	B	16,475	0.412	0.017	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,921	0.348	A	14,775	0.369	0.021	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	B	15,373	0.384	B	16,396	0.410	0.026	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	17,014	0.340	B	20,016	0.400	0.060	NO
	Townsgate Drive to High Bluff Drive	6-M	A	16,662	0.333	A	19,263	0.385	0.052	NO
	High Bluff Drive to Valley Centre Drive	6-M	B	21,035	0.421	B	22,570	0.451	0.031	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	30,131	0.670	C	31,154	0.692	0.023	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	16,410	0.410	B	18,116	0.453	0.043	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	14,294	0.357	B	15,659	0.391	0.034	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,531	0.338	A	14,384	0.360	0.021	NO
	Carmel Canyon Road to SR-56 WB Ramps	4-M	C	21,170	0.529	C	21,852	0.546	0.017	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	4-M	A	12,591	0.315	A	12,932	0.323	0.009	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,542	0.289	A	12,054	0.301	0.013	NO
	Carmel Grove Road to SR-56 WB Ramps	4-M	B	15,933	0.398	B	16,445	0.411	0.013	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	11,826	0.394	B	11,997	0.400	0.006	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	45,968	0.766	C	46,309	0.772	0.006	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	D	10,137	0.676	D	10,649	0.710	0.034	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	26,732	2.673	F	27,073	2.707	0.034	YES

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

* Cumulative rate used on segments not fronting the project.

TABLE 17-7

Near Term With & Without Project (Phase 1 & 2) Intersection Summary

Cinema in Phase 2

#	Intersection	Near Term				Near Term + Project (Phase 1 & 2)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	31.4	C	43.6	D	32.2	C	0.8	N	47.3	D	3.7	N
2	El Camino Real / San Dieguito Road	16.9	B	25.2	C	17.3	B	0.4	N	27.1	C	1.9	N
3	El Camino Real / Derby Downs Road	4.3	A	4.5	A	4.3	A	0.0	N	5.0	A	0.5	N
4	El Camino Real / Half Mile Drive	20.6	B	18.0	B	21.8	C	1.2	N	18.4	B	0.4	N
5	El Camino Real / Quarter Mile Drive	20.6	C	15.1	B	20.6	C	0.0	N	16.4	B	1.3	N
6	Del Mar Heights Road / Mango Drive	33.3	C	31.4	C	34.9	C	1.6	N	34.4	C	3.0	N
7	Del Mar Heights Road / Portofino Drive	9.4	A	9.2	A	9.6	A	0.2	N	9.4	A	0.2	N
8	Del Mar Heights Road / I-5 SB Ramps	24.8	C	23	C	28.7	C	3.9	N	28.5	C	5.5	N
9	Del Mar Heights Road / I-5 NB Ramps	39.6	D	38.3	D	49.8	D	10.2	N	51	D	12.7	N
10	Del Mar Heights Road / High Bluff Drive	28.5	C	32.1	C	31.3	C	2.8	N	61.3	E	29.2	Y
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	6.5	A	0.0	N	14.8	B	0.0	N
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	6	A	0.0	N	15.8	B	0.0	N
13	Del Mar Heights Road / El Camino Real	29.9	C	29.5	C	34.5	C	4.6	N	64	E	34.5	Y
14	Del Mar Heights Road / Carmel Country Rd	22.9	C	21.1	C	26.4	C	3.5	N	26.2	C	5.1	N
15	Del Mar Heights Road / Torrey Ridge Drive	23.6	C	11.9	B	26.0	C	2.4	N	11.9	B	0.0	N
16	Del Mar Heights Road / Lansdale Drive	19.0	B	17.6	B	20.4	C	1.4	N	18.6	B	1.0	N
17	Del Mar Heights Road / Carmel Canyon Rd	13.8	B	10.2	B	14.0	B	0.2	N	10.2	B	0.0	N
18	El Camino Real / Del Mar Highlands Town Ctr.	6.8	A	13.5	B	14.3	B	7.5	N	28.4	C	14.9	N
19	Carmel Country Road / Townsgate Drive	26.5	C	21.8	C	27.4	C	0.9	N	22.7	C	0.9	N
20	El Camino Real / Townsgate Drive	20.8	C	20.7	C	20.9	C	0.1	N	21.9	C	1.2	N
21	Carmel Country Road / Carmel Creek Rd	58.6	E	24.1	C	60.4	E	1.8	N	27.7	C	3.6	N
22	El Camino Real / High Bluff Drive	21.1	C	26.2	C	21.6	C	0.5	N	29.2	C	3.0	N
23	Carmel View Road / High Bluff Drive	8.4	A	9.1	A	8.7	A	0.3	N	9.8	A	0.7	N
24	Carmel Creek Road / Carmel Grove Rd	27.8	C	17.5	B	27.8	C	0.0	N	17.9	B	0.4	N
25	Carmel Valley Road / I-5 SB Ramps	22.6	C	32.1	C	22.8	C	0.2	N	32.7	C	0.6	N
26	Carmel Valley Road / I-5 NB Ramps	13.6	B	20.4	C	14.1	B	0.5	N	20.7	C	0.3	N
27	El Camino Real / Valley Centre Drive	24.6	C	23.2	C	32.7	C	8.1	N	30	C	6.8	N
28	El Camino Real / Carmel Valley Rd	14.8	B	19.2	B	15	B	0.2	N	19.9	B	0.7	N
29	El Camino Real / SR-56 EB On Ramp	18.0	B	32.3	C	18.6	B	0.6	N	35.2	D	2.9	N
30	Carmel View Road / Valley Centre Drive	7.4	A	8.3	A	7.4	A	0.0	N	8.3	A	0.0	N
31	Carmel Creek Road / SR-56 WB Ramp	45.7	D	27	C	46.6	D	0.9	N	30.6	C	3.6	N
32	Carmel Creek Road / SR-56 EB Ramps	12.5	B	27.4	C	12.6	B	0.1	N	27.6	C	0.2	N
33	Carmel Country Road / Carmel Canyon Rd	33.1	C	25.6	C	35.9	D	2.8	N	25.6	C	0.0	N
34	Carmel Country Road / SR-56 WB Ramps	16.2	B	10.9	B	16.2	B	0.0	N	12.3	B	1.4	N
35	Carmel Country Road / SR-56 EB Ramps	14.1	B	11.7	B	14.3	B	0.2	N	12.1	B	0.4	N
36	Carmel Creek Road / Del Mar Trail	47.9	E	21.7	C	52.0	F	4.1	Y	23.9	C	2.2	N

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

DNE = Does not Exist

For Intersection #36, the worst approach delay and level of service is reported.

TABLE 17-8

Near Term With & Without Project (Phase 1 & 2) Ramp Meter Summary

Cinema in Phase 2

Most Restrictive Meter Rate

Cinema in Phase 2 - Alternative

Location		Near Term		Near Term + Project (Phase 1 & 2)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	9.29	1,653	13.86	2,465	4.57	NO
	PM	0.00	0	11.33	2,016	11.33	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	3.69	1,059	3.69	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, if change in delay is greater than 2 minutes and delay is greater than 15 minutes

TABLE 17-9

Near Term With & Without Project (Phase 1 & 2) Freeway Summary

Cinema in Phase 2

Segment	Dir.	Near Term		Near Term + Project (Phase 1 & 2)		Δ	Sig.?
		V/C	LOS	V/C	LOS		
I-5							
Lomas Santa Fe Drive/Via De La Valle	NB	0.6354	C	0.6394	C	0.0040	NO
Lomas Santa Fe Drive/Via De La Valle	SB	0.6558	C	0.6599	C	0.0041	NO
Via De La Valle/Del Mar Heights Rd.	NB	0.6481	C	0.6529	C	0.0049	NO
Via De La Valle/Del Mar Heights Rd.	SB	0.6688	C	0.6739	C	0.0050	NO
Del Mar Heights Rd./ SR-56	NB	0.5596	B	0.5679	B	0.0083	NO
Del Mar Heights Rd./ SR-56	SB	0.5774	B	0.5860	B	0.0086	NO
SR-56/ Carmel Mountain Road	NB	0.5778	B	0.5818	B	0.0040	NO
SR-56/ Carmel Mountain Road	SB	0.6325	C	0.6369	C	0.0044	NO
Carmel Mountain Road/ I-805 Merge	NB	0.5613	B	0.5644	B	0.0031	NO
Carmel Mountain Road/ I-805 Merge	SB	0.5512	B	0.5543	B	0.0030	NO
SR-56							
El Camino Real / Carmel Creek Rd.	EB	0.7801	C	0.7838	C	0.0037	NO
El Camino Real / Carmel Creek Rd.	WB	0.7999	D	0.8037	D	0.0038	NO
Carmel Creek Rd. / Carmel Country Rd.	EB	0.7266	C	0.7303	C	0.0037	NO
Carmel Creek Rd. / Carmel Country Rd.	WB	0.7451	C	0.7489	C	0.0038	NO

Legend:

Dir.= Direction
V/C= Volume to Capacity Ratio
LOS= Level of Service
Sig.?= Is this significant?

18.0 TRANSPORTATION DEMAND MANAGEMENT / TRANSIT

Transportation Demand Management, called “TDM” for short, is a strategy designed to reduce traffic impacts by reducing traffic during the AM and PM peak hours of the day. Since most commuting and congestion occur during peak hours, TDM seeks to shift commuters to transportation modes other than cars as well as eliminate peak hour trips by encouraging commuting in non-peak periods, or eliminating the need to travel by providing commercial support uses on-site.

Figure 18-1 shows the proposed bicycle and pedestrian routes through the project.

The One Paseo project is proposing to incorporate a Rideshare Program to encourage alternative transportation programs and/or use of public transit available in the area. **Figure 18-2** shows the future transportation locations for One Paseo. As shown on **Figure 18-2**, a bike station will be provided to visitors and residents of the project to encourage bicycling.

A future transit stop is located on **Figure 18-2** to identify a possible transit stop on El Camino Real. The Carmel Valley Community Plan references a future transportation terminal at or adjacent to the Town Center on the southeast corner of Del Mar Heights Road and El Camino Real. **Figure 18-3** is a figure from the Carmel Valley Community Plan showing possible transit routes on Del Mar Heights Road and El Camino Real.

The One Paseo project also incorporates two shuttle stops on-site to connect the project with activity centers in the surrounding area as shown on **Figure 18-2**.

Other TDM measures which One Paseo proposes to incorporate include the following:

- A TDM association / coordinator for the tenants of One Paseo.
- Priority parking spaces for carpoolers.
- Informational newsletters to residents and tenants discussing Ride Link and other tools for carpooling, bicycling, and alternative modes of transportation.

18.1 TRANSIT

Currently, there are no local or rapid bus routes along the corridors of El Camino Real or Del Mar Heights Road. However, in the 2050 Regional Transportation Plan approved by SANDAG, a Rapid Bus Service (Route 473) is part of the Capital Improvements of the Revenue Constrained Plan. The proposed Rapid Bus Route 473 would travel from Oceanside to UTC via the Highway 101 Coastal Communities such as Carmel Valley. Bus Route 473 would travel along both El Camino Real and Del Mar Heights Road.

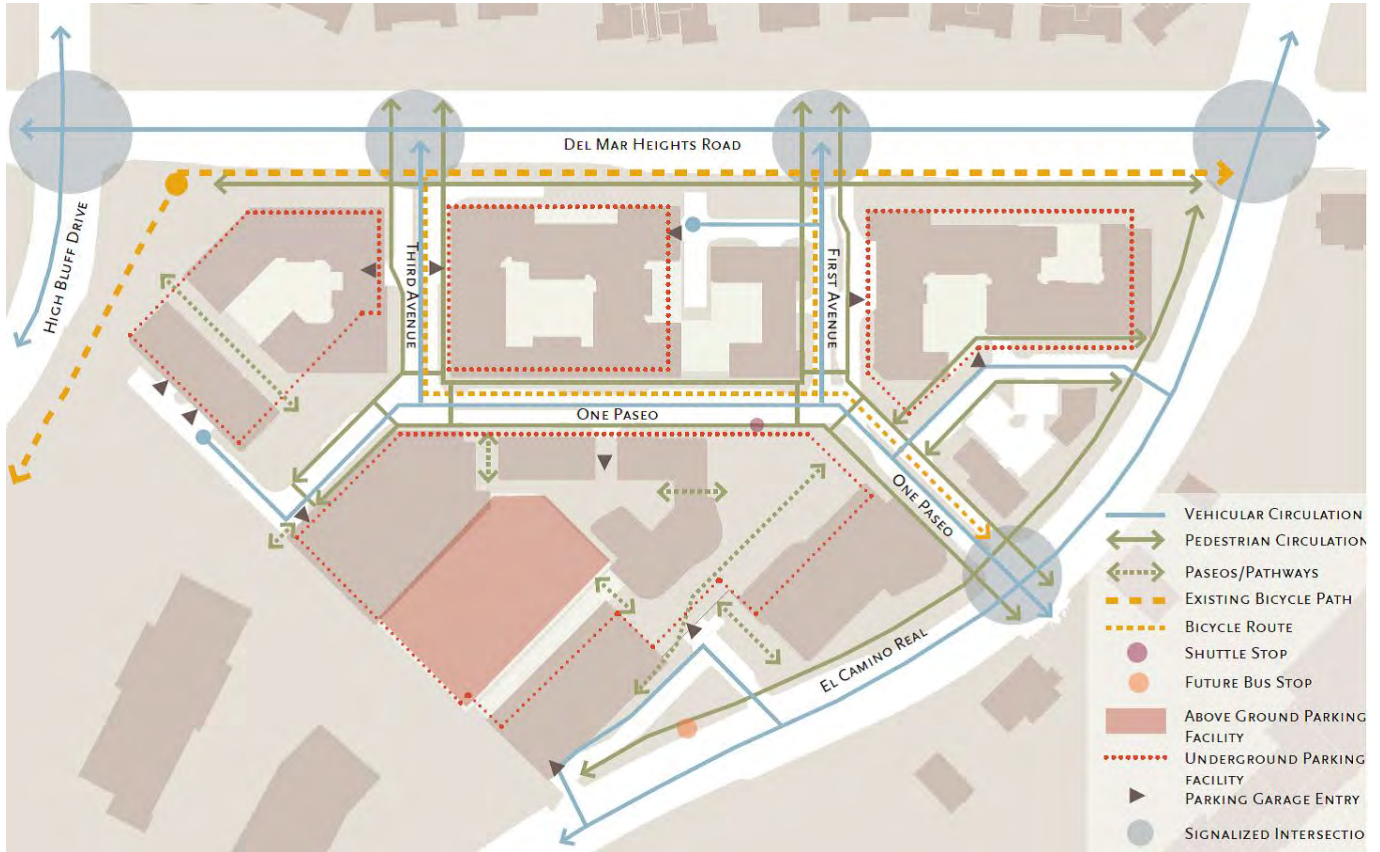
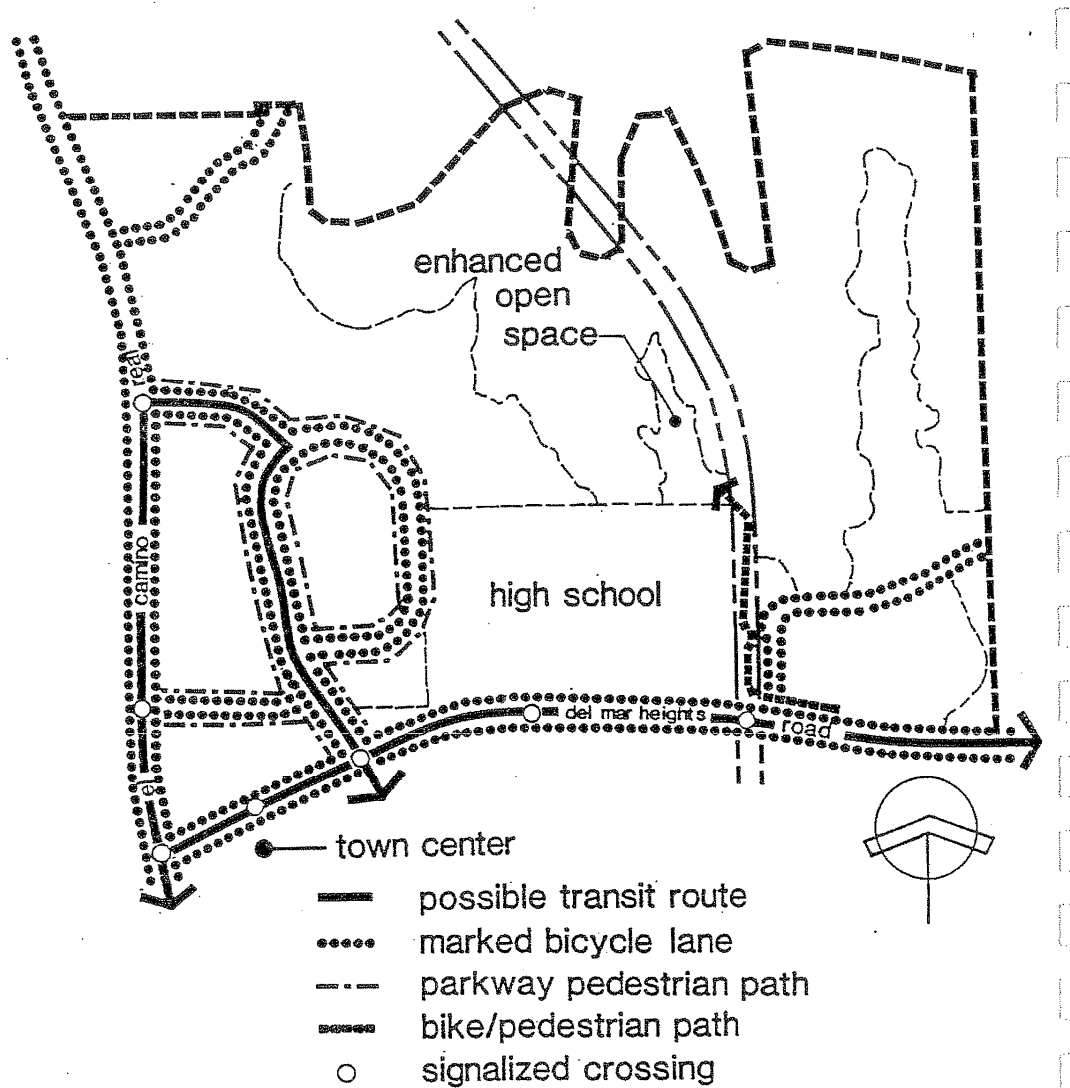


FIGURE 18-1
Bicycle & Pedestrian Circulation Plan

One Paseo – A Main Street for Carmel Valley
Future Transportation Locations



FIGURE 18-2
Future Transportation Locations



16 ALTERNATE CIRCULATION MODES

FIGURE 18-3
CARMEL VALLEY COMMUNITY PLAN ALTERNATIVE CIRCULATION MODES

19.0 CONCLUSIONS AND RECOMMENDATIONS

19.1 PROJECT TRIP GENERATION

The One Paseo at full project build-out is expected to generate a maximum of 26,961 average daily vehicle trips with 1,538 AM peak hour trips and 2,932 PM peak hour trips.

19.2 EXISTING CONDITIONS

Street Segments:

All street segments operate at an acceptable level of service in the Existing condition except for the following locations:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F
Via de la Valle	San Andres Dr. to El Camino Real (West)	F

Intersections:

All intersections operate at level of service “D” or better in the Existing condition except for Carmel Creek Road at Del Mar Trail and Carmel Country Road at Carmel Creek Road.

Freeway Segments:

The freeway segments analyzed on Interstate 5 and State Route 56 operate at acceptable levels of service.

Ramp Meter Analysis:

The only ramp showing a delay based on Caltrans most restrictive meter rate is Del Mar Heights Rd. / I-5 SB on ramp (Westbound Loop).

19.3 EXISTING WITH PROJECT

When project traffic in each phase is added to existing traffic, the following direct impacts occur.

DIRECT IMPACTS:

Street Segments:

In Phase 1, Phases 1&2, and Build-out, the project is projected to have three (3) significant direct street segment impacts in each phase. See **Table 19-1**, **Table 19-2**, and **Table 19-3**, respectively.

Intersections:

The analysis shows no significant direct intersection impacts in Phase 1, see **Table 19-4**. However, in Phases 1&2 and Build-out, there is one significant direct intersection impact at Carmel Creek Road at Del Mar Trail. See **Table 19-5** and **Table 19-6**, respectively.

Freeway Main-lanes:

There are no significant direct freeway main-lane impacts in Phase 1, Phases 1&2, and Build-out. See **Table 19-7**, **Table 16-8**, and **Table 19-9**, respectively.

Freeway Ramp Meters:

In Phase 1, Phases 1&2, and Build-out, the analysis shows no significant direct freeway ramp meter impacts. See **Table 19-10**, **Table 19-11**, and **Table 19-12**, respectively.

Mitigation is discussed in Section 19.9.

TABLE 19-1

Existing & Existing With Project Street Segment LOS Summary

(Phase 1)

Road	Segment	Class.	Existing			Existing + Project (Phase 1)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,314	0.474	B	22,204	0.493	0.020	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	36,086	0.722	C	37,273	0.745	0.024	NO
	I-5 Southbound Ramps and I-5 Northbound Ramps	5-PA	D	40,090	0.802	D	42,166	0.843	0.042	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	51,625	0.860	E	55,481	0.925	0.064	YES
	High Bluff Drive to Third Avenue	PA	C	37,910	0.632	C	42,360	0.706	0.074	NO
	Third Avenue to First Avenue	PA	C	37,910	0.632	C	41,371	0.690	0.058	NO
	First Avenue to El Camino Real	PA	C	37,910	0.632	C	40,382	0.673	0.041	NO
	El Camino Real to Carmel Country Road	PA	B	32,674	0.545	C	35,344	0.589	0.044	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	21,658	0.361	A	22,943	0.382	0.021	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,071	0.318	A	19,961	0.333	0.015	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,188	0.253	A	15,682	0.261	0.008	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	15,579	1.039	F	15,876	1.058	0.020	YES
	San Dieguito Road to Derby Downs Road	4-M	A	13,915	0.348	A	14,311	0.358	0.010	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,333	0.383	B	15,729	0.393	0.010	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,516	0.338	A	14,010	0.350	0.012	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	A	14,925	0.373	B	15,518	0.388	0.015	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	14,731	0.295	A	16,214	0.324	0.030	NO
	Townsgate Drive to High Bluff Drive	6-M	A	15,425	0.309	A	16,710	0.334	0.026	NO
	High Bluff Drive to Valley Centre Drive	6-M	A	19,364	0.387	B	20,254	0.405	0.018	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	27,589	0.613	C	28,182	0.626	0.013	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	15,932	0.398	B	16,921	0.423	0.025	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	13,878	0.347	A	14,669	0.367	0.020	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,137	0.328	A	13,631	0.341	0.012	NO
	Carmel Canyon Road to SR-56 Westbound Ramps	4-M	B	20,553	0.514	B	20,949	0.524	0.010	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	4-M	A	12,224	0.306	A	12,422	0.311	0.005	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,206	0.280	A	11,503	0.288	0.007	NO
	Carmel Grove Road to SR-56 Westbound Ramps	4-M	A	14,862	0.372	B	15,159	0.379	0.007	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	10,875	0.363	B	10,974	0.366	0.003	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	43,375	0.723	C	43,573	0.726	0.003	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	C	9,842	0.656	D	10,139	0.676	0.020	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	24,400	2.440	F	24,598	2.460	0.020	YES

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

TABLE 19-2
Existing & Existing With Project Street Segment LOS Summary
(Phase 1 & 2)

Road	Segment	Class.	Existing			Existing + Project (Phase 1 & 2)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,314	0.474	B	22,917	0.509	0.036	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	36,086	0.722	C	38,223	0.764	0.043	NO
	I-5 Southbound Ramps and I-5 Northbound Ramps	5-PA	D	40,090	0.802	D	43,831	0.877	0.075	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	51,625	0.860	E	58,572	0.976	0.116	YES
	High Bluff Drive to Third Avenue	PA	C	37,910	0.632	C	45,925	0.765	0.134	NO
	Third Avenue to First Avenue	PA	C	37,910	0.632	C	45,213	0.754	0.122	NO
	First Avenue to El Camino Real	PA	C	37,910	0.632	C	45,213	0.754	0.122	NO
	El Camino Real to Carmel Country Road	PA	B	32,674	0.545	C	37,483	0.625	0.080	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	21,658	0.361	A	23,974	0.400	0.039	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,071	0.318	A	20,674	0.345	0.027	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,188	0.253	A	16,079	0.268	0.015	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	15,579	1.039	F	16,113	1.074	0.036	YES
	San Dieguito Road to Derby Downs Road	4-M	A	13,915	0.348	A	14,627	0.366	0.018	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,333	0.383	B	16,045	0.401	0.018	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,516	0.338	A	14,407	0.360	0.022	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	A	14,925	0.373	B	15,994	0.400	0.027	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	14,731	0.295	A	17,403	0.348	0.053	NO
	Townsgate Drive to High Bluff Drive	6-M	A	15,425	0.309	A	17,741	0.355	0.046	NO
	High Bluff Drive to Valley Centre Drive	6-M	A	19,364	0.387	B	20,967	0.419	0.032	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	27,589	0.613	C	28,658	0.637	0.024	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	15,932	0.398	B	17,713	0.443	0.045	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	13,878	0.347	B	15,303	0.383	0.036	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,137	0.328	A	14,028	0.351	0.022	NO
	Carmel Canyon Road to SR-56 Westbound Ramps	4-M	B	20,553	0.514	C	21,265	0.532	0.018	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	4-M	A	12,224	0.306	A	12,580	0.315	0.009	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,206	0.280	A	11,740	0.294	0.013	NO
	Carmel Grove Road to SR-56 Westbound Ramps	4-M	A	14,862	0.372	B	15,396	0.385	0.013	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	10,875	0.363	B	11,053	0.368	0.006	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	43,375	0.723	C	43,731	0.729	0.006	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	C	9,842	0.656	D	10,376	0.692	0.036	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	24,400	2.440	F	24,756	2.476	0.036	YES

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

TABLE 19-3

Existing & Existing With Project Street Segment LOS Summary

(Build-out)

Road	Segment	Class.	Existing			Existing + Project (Buildout)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,314	0.474	B	23,740	0.528	0.054	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	36,086	0.722	C	39,321	0.786	0.065	NO
	I-5 Southbound Ramps and I-5 Northbound Ramps	5-PA	D	40,090	0.802	E	45,752	0.915	0.113	YES
	I-5 Northbound Ramps to High Bluff Drive	PA	D	51,625	0.860	F	62,140	1.036	0.175	YES
	High Bluff Drive to Third Avenue	PA	C	37,910	0.632	D	50,042	0.834	0.202	NO
	Third Avenue to First Avenue	PA	C	37,910	0.632	C	48,964	0.816	0.184	NO
	First Avenue to El Camino Real	PA	C	37,910	0.632	C	48,964	0.816	0.184	NO
	El Camino Real to Carmel Country Road	PA	B	32,674	0.545	C	39,953	0.666	0.121	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	21,658	0.361	B	25,163	0.419	0.058	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,071	0.318	A	21,497	0.358	0.040	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,188	0.253	A	16,536	0.276	0.022	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	15,579	1.039	F	16,388	1.093	0.054	YES
	San Dieguito Road to Derby Downs Road	4-M	A	13,915	0.348	A	14,993	0.375	0.027	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,333	0.383	B	16,411	0.410	0.027	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,516	0.338	A	14,864	0.372	0.034	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	A	14,925	0.373	B	16,543	0.414	0.040	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	14,731	0.295	B	20,123	0.402	0.108	NO
	Townsgate Drive to High Bluff Drive	6-M	A	15,425	0.309	A	18,930	0.379	0.070	NO
	High Bluff Drive to Valley Centre Drive	6-M	A	19,364	0.387	B	21,790	0.436	0.049	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	27,589	0.613	C	29,207	0.649	0.036	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	15,932	0.398	B	18,628	0.466	0.067	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	13,878	0.347	B	16,035	0.401	0.054	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,137	0.328	A	14,485	0.362	0.034	NO
	Carmel Canyon Road to SR-56 Westbound Ramps	4-M	B	20,553	0.514	C	21,631	0.541	0.027	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Road	4-M	A	12,224	0.306	A	12,763	0.319	0.013	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,206	0.280	A	12,015	0.300	0.020	NO
	Carmel Grove Road to SR-56 Westbound Ramps	4-M	A	14,862	0.372	B	15,671	0.392	0.020	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	10,875	0.363	B	11,145	0.371	0.009	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	43,375	0.723	C	43,914	0.732	0.009	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	C	9,842	0.656	D	10,651	0.710	0.054	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	24,400	2.440	F	24,939	2.494	0.054	YES

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

TABLE 19-4

Existing & Existing With Project Intersection LOS Summary

(Phase 1)

#	Intersection	Existing				Existing + Project (Phase 1)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	27.7	C	30.0	C	28.2	C	0.5	No	30.9	C	0.9	No
2	El Camino Real / San Dieguito Road	16.6	B	23.8	C	16.8	B	0.2	No	25.0	C	1.2	No
3	El Camino Real / Derby Downs Road	4.3	A	3.3	A	4.3	A	0.0	No	4.5	A	1.2	No
4	El Camino Real / Half Mile Drive	19.6	B	16.8	B	20.5	C	0.9	No	17.5	B	0.7	No
5	El Camino Real / Quarter Mile Drive	20.0	B	14.0	B	20.1	C	0.1	No	15.0	B	1.0	No
6	Del Mar Heights Road / Mango Drive	31.7	C	29.7	C	32.3	C	0.6	No	31.6	C	1.9	No
7	Del Mar Heights Road / Portofino Drive	9.3	A	9.1	A	9.5	A	0.2	No	9.2	A	0.1	No
8	Del Mar Heights Road / I-5 SB Ramps	22.5	C	20.3	C	24.2	C	1.7	No	22.2	C	1.9	No
9	Del Mar Heights Road / I-5 NB Ramps	35.1	C	37.5	D	36.2	D	1.1	No	38.0	D	0.5	No
10	Del Mar Heights Road / High Bluff Drive	26.1	C	28.9	C	26.6	C	0.5	No	34.2	C	5.3	No
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	5.4	A	N/A	No	10.5	B	N/A	No
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	4.0	A	N/A	No	11.3	B	N/A	No
13	Del Mar Heights Road / El Camino Real	27.2	C	26.9	C	30.6	C	3.4	No	30.3	C	3.4	No
14	Del Mar Heights Road / Carmel Country Rd	22.1	C	24.3	C	24.9	C	2.8	No	24.9	C	0.6	No
15	Del Mar Heights Road / Torrey Ridge Drive	22.7	C	14.9	B	24.0	C	1.3	No	16.6	B	1.7	No
16	Del Mar Heights Road / Lansdale Drive	20.4	C	19.8	B	21.7	C	1.3	No	19.9	B	0.1	No
17	Del Mar Heights Road / Carmel Canyon Rd	13.4	B	9.8	A	13.6	B	0.2	No	9.8	A	0.0	No
18	El Camino Real / Del Mar Highlands Town Ctr.	7.2	A	12.4	B	15.9	B	8.7	No	22.7	C	10.3	No
19	Carmel Country Road / Townsgate Drive	25.8	C	20.2	C	26.4	C	0.6	No	21.7	C	1.5	No
20	El Camino Real / Townsgate Drive	18.2	B	13.0	B	18.5	B	0.3	No	13.8	B	0.8	No
21	Carmel Country Road / Carmel Creek Rd	45.3	D	23.2	C	46.7	D	1.4	No	25.3	C	2.1	No
22	El Camino Real / High Bluff Drive	25.2	C	27.9	C	25.5	C	0.3	No	28.8	C	0.9	No
23	Carmel View Road / High Bluff Drive	8.3	A	9.0	A	8.6	A	0.3	No	9.3	A	0.3	No
24	Carmel Creek Road / Carmel Grove Rd	26.8	C	17.2	B	26.8	C	0.0	No	17.2	B	0.0	No
25	Carmel Valley Road / I-5 SB Ramps	19.6	B	27.0	C	20.0	B	0.4	No	27.7	C	0.7	No
26	Carmel Valley Road / I-5 NB Ramps	12.6	B	18.2	B	12.6	B	0.0	No	18.3	B	0.1	No
27	El Camino Real / Valley Centre Drive	20.9	C	19.7	B	20.9	C	0.0	No	20.1	C	0.4	No
28	El Camino Real / Carmel Valley Rd	14.0	B	16.8	B	14.9	B	0.9	No	20.5	C	3.7	No
29	El Camino Real / SR-56 EB On Ramp	15.4	B	24.4	C	15.6	B	0.2	No	25.3	C	0.9	No
30	Carmel View Road / Valley Centre Drive	6.7	A	7.8	A	6.7	A	0.0	No	7.8	A	0.0	No
31	Carmel Creek Road / SR-56 WB Ramp	37.0	D	20.7	C	38.8	D	1.8	No	20.8	C	0.1	No
32	Carmel Creek Road / SR-56 EB Ramps	11.6	B	19.5	B	11.7	B	0.1	No	25.0	C	5.5	No
33	Carmel Country Road / Carmel Canyon Rd	31.9	C	23.2	C	32.0	C	0.1	No	25.0	C	1.8	No
34	Carmel Country Road / SR-56 WB Ramps	15.7	B	10.9	B	15.8	B	0.1	No	11.3	B	0.4	No
35	Carmel Country Road / SR-56 EB Ramps	13.4	B	11.5	B	13.4	B	0.0	No	11.8	B	0.3	No
36	Carmel Creek Road / Del Mar Trail	41.6	E	20.1	C	43.6	E	2.0	No	20.9	C	0.8	No

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

DNE = Does Not Exist

N/A = Not Applicable

TABLE 19-5

Existing & Existing With Project Intersection LOS Summary

(Phase 1 & 2)

#	Intersection	Existing				Existing + Project (Phase 1 & 2)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	27.7	C	30.0	C	28.4	C	0.7	No	32.6	C	2.6	No
2	El Camino Real / San Dieguito Road	16.6	B	23.8	C	16.8	B	0.2	No	25.8	C	2.0	No
3	El Camino Real / Derby Downs Road	4.3	A	3.3	A	4.3	A	0.0	No	4.6	A	1.3	No
4	El Camino Real / Half Mile Drive	19.6	B	16.8	B	20.6	C	1.0	No	17.8	B	1.0	No
5	El Camino Real / Quarter Mile Drive	20.0	B	14.0	B	20.1	C	0.1	No	15.1	B	1.1	No
6	Del Mar Heights Road / Mango Drive	31.7	C	29.7	C	32.5	C	0.8	No	32.3	C	2.6	No
7	Del Mar Heights Road / Portofino Drive	9.3	A	9.1	A	9.5	A	0.2	No	9.3	A	0.2	No
8	Del Mar Heights Road / I-5 SB Ramps	22.5	C	20.3	C	24.8	C	2.3	No	24.0	C	3.7	No
9	Del Mar Heights Road / I-5 NB Ramps	35.1	D	37.5	D	37.7	D	2.6	No	41.2	D	3.7	No
10	Del Mar Heights Road / High Bluff Drive	26.1	C	28.9	C	27.4	C	1.3	No	40.4	D	11.5	No
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	6.8	A	N/A	No	14.1	B	N/A	No
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	6.0	A	N/A	No	15.8	B	N/A	No
13	Del Mar Heights Road / El Camino Real	27.2	C	26.9	C	32.2	C	5.0	No	37.3	D	10.4	No
14	Del Mar Heights Road / Carmel Country Rd	22.1	C	24.3	C	25.5	C	3.4	No	28.6	C	4.3	No
15	Del Mar Heights Road / Torrey Ridge Drive	22.7	C	14.9	B	25.1	C	2.4	No	16.2	B	1.3	No
16	Del Mar Heights Road / Lansdale Drive	20.4	C	19.8	B	22.1	C	1.7	No	23.8	C	4.0	No
17	Del Mar Heights Road / Carmel Canyon Rd	13.4	B	9.8	A	13.6	B	0.2	No	9.9	A	0.1	No
18	El Camino Real / Del Mar Highlands Town Ctr.	7.2	A	12.4	B	17.9	B	10.7	No	26.1	C	13.7	No
19	Carmel Country Road / Townsgate Drive	25.8	C	20.2	C	26.6	C	0.8	No	22.1	C	1.9	No
20	El Camino Real / Townsgate Drive	18.2	B	13.0	B	18.6	B	0.4	No	13.7	B	0.7	No
21	Carmel Country Road / Carmel Creek Rd	45.3	D	23.2	C	47.7	D	2.4	No	25.7	C	2.5	No
22	El Camino Real / High Bluff Drive	25.2	C	27.9	C	25.8	C	0.6	No	30.1	C	2.2	No
23	Carmel View Road / High Bluff Drive	8.3	A	9.0	A	8.6	A	0.3	No	9.5	A	0.5	No
24	Carmel Creek Road / Carmel Grove Rd	26.8	C	17.2	B	26.8	C	0.0	No	17.3	B	0.1	No
25	Carmel Valley Road / I-5 SB Ramps	19.6	B	27.0	C	20.1	C	0.5	No	27.9	C	0.9	No
26	Carmel Valley Road / I-5 NB Ramps	12.6	B	18.2	B	12.6	B	0.0	No	18.4	B	0.2	No
27	El Camino Real / Valley Centre Drive	20.9	C	19.7	B	21.0	C	0.1	No	20.2	C	0.5	No
28	El Camino Real / Carmel Valley Rd	14.0	B	16.8	B	14.9	B	0.9	No	20.6	C	3.8	No
29	El Camino Real / SR-56 EB On Ramp	15.4	B	24.4	C	15.7	B	0.3	No	26.0	C	1.6	No
30	Carmel View Road / Valley Centre Drive	6.7	A	7.8	A	6.7	A	0.0	No	7.8	A	0.0	No
31	Carmel Creek Road / SR-56 WB Ramp	37.0	D	20.7	C	39.0	D	2.0	No	21.5	C	0.8	No
32	Carmel Creek Road / SR-56 EB Ramps	11.6	B	19.5	B	11.8	B	0.2	No	25.6	C	6.1	No
33	Carmel Country Road / Carmel Canyon Rd	31.9	C	23.2	C	32.2	C	0.3	No	25.2	C	2.0	No
34	Carmel Country Road / SR-56 WB Ramps	15.7	B	10.9	B	15.8	B	0.1	No	11.3	B	0.4	No
35	Carmel Country Road / SR-56 EB Ramps	13.4	B	11.5	B	13.4	B	0.0	No	11.9	B	0.4	No
36	Carmel Creek Road / Del Mar Trail	41.6	E	20.1	C	44.5	E	2.9	Yes	21.9	C	1.8	No

Notes:

LOS = Level of Service

DNE = Does Not Exist

Δ = Change

N/A = Not Applicable

S = Significant

D = Delay

TABLE 19-6

Existing & Existing With Project Intersection LOS Summary

(Build-out)

#	Intersection	Existing				Existing + Project (Buildout)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	27.7	C	30.0	C	28.7	C	1.0	No	33.5	C	3.5	No
2	El Camino Real / San Dieguito Road	16.6	B	23.8	C	17.0	B	0.4	No	26.4	C	2.6	No
3	El Camino Real / Derby Downs Road	4.3	A	3.3	A	4.3	A	0.0	No	5.0	A	1.7	No
4	El Camino Real / Half Mile Drive	19.6	B	16.8	B	20.9	C	1.3	No	18.9	B	2.1	No
5	El Camino Real / Quarter Mile Drive	20.0	B	14.0	B	20.4	C	0.4	No	14.4	B	0.4	No
6	Del Mar Heights Road / Mango Drive	31.7	C	29.7	C	32.9	C	1.2	No	33.4	C	3.7	No
7	Del Mar Heights Road / Portofino Drive	9.3	A	9.1	A	9.6	A	0.3	No	9.4	A	0.3	No
8	Del Mar Heights Road / I-5 SB Ramps	22.5	C	20.3	C	25.1	C	2.6	No	25.9	C	5.6	No
9	Del Mar Heights Road / I-5 NB Ramps	35.1	D	37.5	D	40.4	D	5.3	No	51.3	D	13.8	No
10	Del Mar Heights Road / High Bluff Drive	26.1	C	28.9	C	29.1	C	3.0	No	47.2	D	18.3	No
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	8.7	A	N/A	No	21.2	C	N/A	No
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	7.7	A	N/A	No	22.0	C	N/A	No
13	Del Mar Heights Road / El Camino Real	27.2	C	26.9	C	33.6	C	6.4	No	45.5	D	18.6	No
14	Del Mar Heights Road / Carmel Country Rd	22.1	C	24.3	C	26.5	C	4.4	No	36.5	D	12.2	No
15	Del Mar Heights Road / Torrey Ridge Drive	22.7	C	14.9	B	25.3	C	2.6	No	15.4	B	0.5	No
16	Del Mar Heights Road / Lansdale Drive	20.4	C	19.8	B	22.9	C	2.5	No	27.6	C	7.8	No
17	Del Mar Heights Road / Carmel Canyon Rd	13.4	B	9.8	A	13.6	B	0.2	No	10.0	A	0.2	No
18	El Camino Real / Del Mar Highlands Town Ctr.	7.2	A	12.4	B	19.1	B	11.9	No	28.7	C	16.3	No
19	Carmel Country Road / Townsgate Drive	25.8	C	20.2	C	26.9	C	1.1	No	22.7	C	2.5	No
20	El Camino Real / Townsgate Drive	18.2	B	13.0	B	18.8	B	0.6	No	14.1	B	1.1	No
21	Carmel Country Road / Carmel Creek Rd	45.3	D	23.2	C	49.2	D	3.9	No	27.7	C	4.5	No
22	El Camino Real / High Bluff Drive	25.2	C	27.9	C	25.8	C	0.6	No	31.8	C	3.9	No
23	Carmel View Road / High Bluff Drive	8.3	A	9.0	A	8.7	A	0.4	No	9.8	A	0.8	No
24	Carmel Creek Road / Carmel Grove Rd	26.8	C	17.2	B	26.8	C	0.0	No	17.4	B	0.2	No
25	Carmel Valley Road / I-5 SB Ramps	19.6	B	27.0	C	20.1	C	0.5	No	27.6	C	0.6	No
26	Carmel Valley Road / I-5 NB Ramps	12.6	B	18.2	B	12.6	B	0.0	No	18.2	B	0.0	No
27	El Camino Real / Valley Centre Drive	20.9	C	19.7	B	21.1	C	0.2	No	20.2	C	0.5	No
28	El Camino Real / Carmel Valley Rd	14.0	B	16.8	B	14.9	B	0.9	No	20.9	C	4.1	No
29	El Camino Real / SR-56 EB On Ramp	15.4	B	24.4	C	16.1	B	0.7	No	26.5	C	2.1	No
30	Carmel View Road / Valley Centre Drive	6.7	A	7.8	A	6.7	A	0.0	No	7.8	A	0.0	No
31	Carmel Creek Road / SR-56 WB Ramp	37.0	D	20.7	C	39.4	D	2.4	No	21.6	C	0.9	No
32	Carmel Creek Road / SR-56 EB Ramps	11.6	B	19.5	B	11.7	B	0.1	No	26.0	C	6.5	No
33	Carmel Country Road / Carmel Canyon Rd	31.9	C	23.2	C	32.3	C	0.4	No	25.5	C	2.3	No
34	Carmel Country Road / SR-56 WB Ramps	15.7	B	10.9	B	15.8	B	0.1	No	11.4	B	0.5	No
35	Carmel Country Road / SR-56 EB Ramps	13.4	B	11.5	B	13.4	B	0.0	No	12.1	B	0.6	No
36	Carmel Creek Road / Del Mar Trail	41.6	E	20.1	C	46.2	E	4.6	Yes	22.9	C	2.8	No

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

N/A = Not Applicable

DNE = Does Not Exist

TABLE 19-7

Existing & Existing With Project Freeway Summary

(Phase 1)

Segment	Lanes	Capacity	Dir.	Existing		Existing + Project (Phase 1)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6319	C	0.6339	C	0.0020	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6523	C	0.6543	C	0.0020	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6447	C	0.6472	C	0.0024	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6655	C	0.6680	C	0.0025	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5565	B	0.5606	B	0.0041	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5744	B	0.5787	B	0.0042	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5746	B	0.5766	B	0.0020	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6290	C	0.6312	C	0.0022	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5582	B	0.5597	B	0.0015	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5482	B	0.5497	B	0.0015	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8144	D	0.8164	D	0.0020	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8352	D	0.8372	D	0.0020	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7641	C	0.7661	C	0.0020	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.7836	C	0.7857	C	0.0020	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP = # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln

#-M = # of Managed Lanes (Capacity for LOS "C" assumed at 1680 veh/hr/ln taken from Caltrans Guide, December 2002)

#-AX = # of Auxiliary lane with LOS E capacity of 1,800 veh/hr/ln

#-HOV = # of High Occupancy Vehicle lane with LOS E capacity of 1,600 veh/hr/ln

TABLE 19-8
Existing & Existing With Project Freeway Summary
(Phase 1 & 2)

Segment	Lanes	Capacity	Dir.	Existing		Existing + Project (Phase 1 & 2)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6319	C	0.6355	C	0.0035	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6523	C	0.6560	C	0.0037	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6447	C	0.6491	C	0.0043	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6655	C	0.6700	C	0.0045	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5565	B	0.5639	B	0.0074	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5744	B	0.5820	B	0.0076	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5746	B	0.5781	B	0.0036	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6290	C	0.6329	C	0.0039	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5582	B	0.5610	B	0.0028	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5482	B	0.5509	B	0.0027	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8144	D	0.8180	D	0.0036	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8352	D	0.8388	D	0.0037	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7641	C	0.7677	C	0.0036	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.7836	C	0.7873	C	0.0037	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP = # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln

#-M = # of Managed Lanes (Capacity for LOS "C" assumed at 1680 veh/hr/ln taken from Caltrans Guide, December 2002)

#-AX = # of Auxiliary lane with LOS E capacity of 1,800 veh/hr/ln

#-HOV = # of High Occupancy Vehicle lane with LOS E capacity of 1,600 veh/hr/ln

TABLE 19-9
Existing & Existing With Project Freeway Summary
(Build-out)

Segment	Lanes	Capacity	Dir.	Existing		Existing + Project (Build-out)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6319	C	0.6373	C	0.0054	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6523	C	0.6579	C	0.0055	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6447	C	0.6513	C	0.0066	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6655	C	0.6723	C	0.0068	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5565	B	0.5677	B	0.0112	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5744	B	0.5860	B	0.0116	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5746	B	0.5800	B	0.0054	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6290	C	0.6349	C	0.0059	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5582	B	0.5624	B	0.0042	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5482	B	0.5523	B	0.0041	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8144	D	0.8198	D	0.0054	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8352	D	0.8407	D	0.0056	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7641	C	0.7696	C	0.0054	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.7836	C	0.7892	C	0.0056	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP = # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln

#-M = # of Managed Lanes (Capacity for LOS "C" assumed at 1680 veh/hr/ln taken from Caltrans Guide, December 2002)

#-AX = # of Auxiliary lane with LOS E capacity of 1,800 veh/hr/ln

#-HOV = # of High Occupancy Vehicle lane with LOS E capacity of 1,600 veh/hr/ln

TABLE 19-10
Existing & Existing With Project Ramp Meter Summary
(Phase 1)

Most Restrictive Meter Rate

Location		Existing		Existing + Project (Phase 1)		Δ	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	6.20	1,102	8.07	1,436	1.88	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	0.00	0	0.00	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**.

TABLE 19-11
Existing & Existing With Project Ramp Meter Summary
(Phase 1 & 2)

Most Restrictive Meter Rate

Location		Existing		Existing + Project (Phase 1 & 2)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	6.20	1,102	10.76	1,914	4.57	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	0.00	0	0.00	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**.

TABLE 19-12

Existing & Existing With Project Ramp Meter Summary

(Build-out)

Most Restrictive Meter Rate

Location		Existing		Existing With Project (Buildout)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	6.20	1,102	13.53	2,407	7.34	NO
	PM	0.00	0	3.99	711	3.99	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	0.00	0	0.00	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, if change in delay is greater than 2 minutes and delay is greater than 15 minutes

Meter rate is based on the most restrictive meter rate provided by Caltrans, see **Appendix C**.

15 Minute Max. Meter Rate

Location		Existing		Existing With Project (Buildout)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	0.0	0	22.0	3,509	22.0	NO
	PM	0.0	0	37.3	4,365	37.3	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.0	0	15.0	2,088	15.0	NO
	PM	0.0	0	15.0	1,175	15.0	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.0	NO
	PM	0.0	0	22.0	4,611	22.0	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

19.4 NEAR TERM WITHOUT PROJECT

Street Segments:

All street segments are anticipated to operate at an acceptable level of service in the Near Term Without Project scenario except the following segments:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F
Via de la Valle	San Andres Dr. to El Camino Real (West)	F

Intersections:

All intersections are projected to operate at an acceptable level of service in this condition without the project and without any mitigation assumed except for Carmel Creek Road at Del Mar Trail.

Freeway Segments:

The freeway segments analyzed on Interstate 5 and State Route 56 are projected to operate at acceptable levels of service.

Ramp Meter Analysis:

The only ramp showing a delay based on Caltrans most restrictive meter rate is Del Mar Heights Rd. / I-5 SB on ramp (Westbound Loop) in the AM peak hour.

19.5 NEAR TERM WITH PROJECT PHASE 1

When the existing plus the “cumulative” projects plus the proposed project (Project Phase 1) is added, the following results occur.

Street Segments:

All street segments are projected to operate at acceptable levels of service in the Near Term With Project (Project Phase 1) condition except the following segments:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F
Via de la Valle	San Andres Dr. to El Camino Real (West)	F

Intersections:

All intersections are projected to operate at LOS “D” or better in this condition with the project in Project Phase 1 and without any mitigation assumed except for Carmel Creek Road at Del Mar Trail.

Freeway Segments:

The freeway segments analyzed on Interstate 5 and State Route 56 are projected to operate at acceptable levels of service.

Ramp Meter Analysis:

The ramps showing a delay based on Caltrans most restrictive meter rate is Del Mar Heights Rd. / I-5 SB on ramp (Westbound Loop) and the I-5 NB on ramp at Del Mar Heights Road.

19.6 NEAR TERM WITH PROJECT (Project Phase 1 & 2)

When the existing plus the “cumulative” projects plus the proposed project (Project Phase 1 & 2) is added, the following results occur.

Street Segments:

All street segments are projected to operate at acceptable levels of service in the Near Term With Project (Project Phase 1 & 2) condition except the following segments:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F
Via de la Valle	San Andres Dr. to El Camino Real (West)	F

Intersections:

All intersections are projected to operate at LOS “D” or better in this condition with the project in Project Phase 1 & 2 and without any mitigation assumed except for the following three intersections:

Del Mar Heights Rd. / High Bluff Drive	LOS “E” in the PM Peak
Del Mar Heights Rd. / El Camino Real	LOS “E” in the PM Peak
Carmel Creek Rd. / Del Mar Trail	LOS “F” in the AM Peak

Freeway Segments:

The freeway segments analyzed on Interstate 5 and State Route 56 are projected to operate at level of service D or better.

Ramp Meter Analysis:

Two ramps are showing a delay based on Caltrans most restrictive meter rate are Del Mar Heights Rd. / I-5 SB on ramp (Westbound Loop) and Del Mar Heights Rd. / I-5 NB on-ramp.

19.7 NEAR TERM WITH PROJECT (BUILD-OUT)

When the existing plus the “cumulative” projects plus the proposed project (Build-out) is added, the following results occur.

Street Segments:

All street segments are projected to operate at acceptable levels of service in the Near Term With Project (Build-out) condition except the following segments:

<u>Road</u>	<u>Segment</u>	<u>LOS</u>
Del Mar Heights Rd.	I-5 SB Ramps to I-5 NB Ramps	E
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	F
El Camino Real	Via de la Valle to San Dieguito Rd.	F
Via de la Valle	San Andres Dr. to El Camino Real (West)	F

Intersections:

All intersections are projected to operate at LOS “D” or better in this condition with the project in Project Build-out and without any mitigation assumed except for the following three intersections:

Del Mar Heights Rd. / I-5 NB Ramps	LOS “E” in the PM Peak
Del Mar Heights Rd. / High Bluff Drive	LOS “E” in the PM Peak
Del Mar Heights Rd. / El Camino Real	LOS “E” in the PM Peak
Carmel Creek Rd. / Del Mar Trail	LOS “F” in the AM Peak

Freeway Segments:

The freeway segments analyzed on Interstate 5 and State Route 56 are projected to operate at level of service D or better.

Ramp Meter Analysis:

Three ramps are showing a delay based on Caltrans most restrictive meter rate are Del Mar Heights Rd. / I-5 SB on ramp (Westbound Loop) and Del Mar Heights Rd. / I-5 NB on-ramp.

19.7 DIRECT IMPACTS cont.:

STREET SEGMENTS:

Project Phase 1:

Table 19-13 shows the summary of the direct impacts for Project Phase 1 on street segments within the study area. As shown in the table, significant impacts which occur and require mitigation are identified at three (3) locations shown highlighted in yellow. Mitigation for these impacts is discussed in Section 19.9.

Project Phase 1 & 2:

Table 19-14 shows the summary of the direct impacts for Project Phase 1 & 2 on street segments within the study area. As shown in the table, significant impacts which occur and require mitigation are identified at three (3) locations shown highlighted in yellow, identical to those associated with Project Phase 1. Mitigation for these impacts is discussed in Section 19.9.

Project Build-out:

Table 19-15 shows the summary of the direct impacts for Project Build-out on street segments within the study area. As shown in the table, significant impacts which occur and require mitigation are identified at four (4) locations shown highlighted in yellow, including three impacts identified in Project Phase 1 & 2 plus one additional impact. Mitigation for these impacts is discussed in Section 19.9.

INTERSECTIONS:

Project Phase 1:

Table 19-16 shows the summary of the Near Term impacts with and without the proposed project (Project Phase 1) for intersections within the study area. As shown in the table, there is one (1) significant direct project impact at the intersection of Carmel Creek Road at Del Mar Trail, so therefore, mitigation is required. The intersection is currently four-way stop controlled. In the Existing condition, peak hour warrants for a signal are met for this intersection and provided in **Appendix N**.

Project Phase 1 & 2:

Table 19-17 shows the summary of the Near Term impacts with and without the proposed project (Project Phase 1 & 2) for intersections within the study area. As shown in the table, there are three (3) significant direct project impacts, so therefore, mitigation is required, including the impact identified in Phase 1 plus 2 additional impacts. Mitigation for these impacts is discussed in Section 19.9.

Project Build-out:

Table 19-18 shows the summary of the Near Term impacts with and without the proposed project (Project Build-out) for intersections within the study area. As shown in the table, there are four (4) significant direct project impacts, so therefore, mitigation is required, including 3 impacts shown in Phase 1&2, plus one additional impact. Mitigation for these impacts is discussed in Section 19.9.

TABLE 19-13

Near Term With and Without Project Street Segment LOS Summary

(Phase 1)

Road	Segment	Class.	Near Term			Near Term + Project (Phase 1)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,953	0.488	B	22,843	0.508	0.020	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	37,169	0.743	C	38,355	0.767	0.024	NO
	I-5 SB Ramps and I-5 NB Ramps	5-PA	D	41,213	0.824	D	43,289	0.866	0.042	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	54,775	0.913	E	58,631	0.977	0.064	YES
	High Bluff Drive to Third Avenue	PA	C	40,648	0.677	C	45,098	0.752	0.074	NO
	Thirth Avenue to First Avenue	PA	C	40,648	0.677	C	44,109	0.735	0.058	NO
	First Avenue to El Camino Real	PA	C	40,648	0.677	C	43,120	0.719	0.041	NO
	El Camino Real to Carmel Country Road	PA	B	33,654	0.561	C	36,324	0.605	0.044	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	22,308	0.372	A	23,593	0.393	0.021	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,643	0.327	A	20,533	0.342	0.015	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,644	0.261	A	16,138	0.269	0.008	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	16,235	1.082	F	16,532	1.102	0.020	YES
	San Dieguito Road to Derby Downs Road	4-M	A	14,332	0.358	A	14,728	0.368	0.010	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,793	0.395	B	16,189	0.405	0.010	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,921	0.348	A	14,416	0.360	0.012	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	B	15,373	0.384	B	15,966	0.399	0.015	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	17,014	0.340	A	18,497	0.370	0.030	NO
	Townsgate Drive to High Bluff Drive	6-M	A	16,662	0.333	A	17,947	0.359	0.026	NO
	High Bluff Drive to Valley Centre Drive	6-M	B	21,035	0.421	B	21,925	0.438	0.018	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	30,131	0.670	C	30,724	0.683	0.013	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	16,410	0.410	B	17,399	0.435	0.025	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	14,294	0.357	B	15,085	0.377	0.020	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,531	0.338	A	14,026	0.351	0.012	NO
	Carmel Canyon Road to SR-56 WB Ramps	4-M	C	21,170	0.529	C	21,565	0.539	0.010	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	4-M	A	12,591	0.315	A	12,788	0.320	0.005	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,542	0.289	A	11,839	0.296	0.007	NO
	Carmel Grove Road to SR-56 WB Ramps	4-M	B	15,933	0.398	B	16,230	0.406	0.007	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	11,826	0.394	B	11,925	0.398	0.003	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	45,968	0.766	C	46,166	0.769	0.003	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	D	10,137	0.676	D	10,434	0.696	0.020	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	26,732	2.673	F	26,930	2.693	0.020	YES

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

5-M = 5 lane Major with LOS E capacity of 45,000 ADT

5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

4-M=4 lane Major

PA = 6 lane Primary Arterial

2-Ca=2 lane collector

6-M = 6 lane Major

2-Cb = 2 lane Collector with no fronting property

TABLE 19-14

Near Term With and Without Project Street Segment Significance

(Project Phase 1 & 2)

Road	Segment	Class.	Near Term			Near Term + Project (Phase 1 & 2)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,953	0.488	B	23,557	0.523	0.036	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	37,169	0.743	C	39,306	0.786	0.043	NO
	I-5 SB Ramps and I-5 NB Ramps	5-PA	D	41,213	0.824	D	44,953	0.899	0.075	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	54,775	0.913	F	61,721	1.029	0.116	YES
	High Bluff Drive to Third Avenue	PA	C	40,648	0.677	C	48,664	0.811	0.134	NO
	Third Avenue to First Avenue	PA	C	40,648	0.677	C	47,951	0.799	0.122	NO
	First Avenue to El Camino Real	PA	C	40,648	0.677	C	47,951	0.799	0.122	NO
	El Camino Real to Carmel Country Road	PA	B	33,654	0.561	C	38,463	0.641	0.080	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	22,308	0.372	A	24,623	0.410	0.039	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,643	0.327	A	21,246	0.354	0.027	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,644	0.261	A	16,534	0.276	0.015	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	16,235	1.082	F	16,770	1.118	0.036	YES
	San Dieguito Road to Derby Downs Road	4-M	A	14,332	0.358	B	15,045	0.376	0.018	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,793	0.395	B	16,505	0.413	0.018	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,921	0.348	A	14,812	0.370	0.022	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	B	15,373	0.384	B	16,441	0.411	0.027	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	17,014	0.340	A	19,686	0.394	0.053	NO
	Townsgate Drive to High Bluff Drive	6-M	A	16,662	0.333	A	18,977	0.380	0.046	NO
	High Bluff Drive to Valley Centre Drive	6-M	B	21,035	0.421	B	22,638	0.453	0.032	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	30,131	0.670	C	31,199	0.693	0.024	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	16,410	0.410	B	18,191	0.455	0.045	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	14,294	0.357	B	15,719	0.393	0.036	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,531	0.338	A	14,422	0.361	0.022	NO
	Carmel Canyon Road to SR-56 WB Ramps	4-M	C	21,170	0.529	C	21,882	0.547	0.018	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	4-M	A	12,591	0.315	A	12,947	0.324	0.009	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,542	0.289	A	12,077	0.302	0.013	NO
	Carmel Grove Road to SR-56 WB Ramps	4-M	B	15,933	0.398	B	16,467	0.412	0.013	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	11,826	0.394	B	12,004	0.400	0.006	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	45,968	0.766	C	46,324	0.772	0.006	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	D	10,137	0.676	D	10,672	0.711	0.036	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	26,732	2.673	F	27,088	2.709	0.036	YES

Legend:

- LOS= Level of Service
V/C= Volume to Capacity Ratio
ΔV/C= Change in V/C ratio
- 5-M = 5 lane Major with LOS E capacity of 45,000 ADT
5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT
4-M=4 lane Major
2-Ca=2 lane collector
2-Cb = 2 lane Collector with no fronting property
- PA = 6 lane Primary Arterial
6-M = 6 lane Major

TABLE 19-15

Near Term With and Without Project Street Segment Significance

(Build-out)

Road	Segment	Class.	Near Term			Near Term + Project (Build-out)			Δ V/C	Is this impact Significant?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	B	21,953	0.488	B	24,013	0.534	0.046	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	37,169	0.743	D	40,404	0.808	0.065	NO
	I-5 SB Ramps and I-5 NB Ramps	5-PA	D	41,213	0.824	E	46,874	0.937	0.113	YES
	I-5 Northbound Ramps to High Bluff Drive	PA	D	54,775	0.913	F	65,290	1.088	0.175	YES
	High Bluff Drive to Third Avenue	PA	C	40,648	0.677	D	52,781	0.880	0.202	NO
	Thirth Avenue to First Avenue	PA	C	40,648	0.677	D	51,702	0.862	0.184	NO
	First Avenue to El Camino Real	PA	C	40,648	0.677	D	51,702	0.862	0.184	NO
	El Camino Real to Carmel Country Road	PA	B	33,654	0.561	C	41,473	0.691	0.130	NO
	Carmel Country Road to Torrey Ridge Road	PA	A	22,308	0.372	B	25,813	0.430	0.058	NO
	Torrey Ridge Road to Lansdale Drive	PA	A	19,643	0.327	A	22,070	0.368	0.040	NO
Lansdale Drive to Carmel Canyon Road	PA	A	15,644	0.261	A	16,992	0.283	0.022	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	16,235	1.082	F	17,044	1.136	0.054	YES
	San Dieguito Road to Derby Downs Road	4-M	A	14,332	0.358	B	15,411	0.385	0.027	NO
	Derby Downs Road to Half Mile Drive	4-M	B	15,793	0.395	B	16,871	0.422	0.027	NO
	Half Mile Drive to Quarter Mile Drive	4-M	A	13,921	0.348	B	15,270	0.382	0.034	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	B	15,373	0.384	B	16,990	0.425	0.040	NO
	Del Mar Heights Road to Townsgate Drive	6-M	A	17,014	0.340	B	22,406	0.448	0.108	NO
	Townsgate Drive to High Bluff Drive	6-M	A	16,662	0.333	B	20,167	0.403	0.070	NO
	High Bluff Drive to Valley Centre Drive	6-M	B	21,035	0.421	B	23,461	0.469	0.049	NO
Valley Centre Drive to Carmel Valley Road	5-M	C	30,131	0.670	C	31,748	0.706	0.036	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	B	16,410	0.410	B	19,106	0.478	0.067	NO
	Townsgate Drive to Carmel Creek Road	4-M	A	14,294	0.357	B	16,451	0.411	0.054	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,531	0.338	A	14,879	0.372	0.034	NO
	Carmel Canyon Road to SR-56 WB Ramps	4-M	C	21,170	0.529	C	22,248	0.556	0.027	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	4-M	A	12,591	0.315	A	13,130	0.328	0.013	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	A	11,542	0.289	A	12,351	0.309	0.020	NO
	Carmel Grove Road to SR-56 WB Ramps	4-M	B	15,933	0.398	B	16,742	0.419	0.020	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	B	11,826	0.394	B	12,096	0.403	0.009	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	45,968	0.766	C	46,507	0.775	0.009	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	D	10,137	0.676	D	10,946	0.730	0.054	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	26,732	2.673	F	27,271	2.727	0.054	YES

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

5-M = 5 lane Major with LOS E capacity of 45,000 ADT

5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT

4-M=4 lane Major

PA = 6 lane Primary Arterial

2-Ca=2 lane collector

6-M = 6 lane Major

2-Cb = 2 lane Collector with no fronting property

TABLE 19-16

Near Term With and Without Project Intersection LOS Summary

(Phase 1)

#	Intersection	Near Term				Near Term + Project (Phase 1)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	31.4	C	38.8	D	31.9	C	0.5	N	40.6	D	1.8	N
2	El Camino Real / San Dieguito Road	16.9	B	25.2	C	17.1	B	0.2	N	27.3	C	2.1	N
3	El Camino Real / Derby Downs Road	4.3	A	4.5	A	4.3	A	0.0	N	5.0	A	0.5	N
4	El Camino Real / Half Mile Drive	20.6	B	14.0	B	21.7	C	1.1	N	14.1	B	0.1	N
5	El Camino Real / Quarter Mile Drive	20.6	C	15.1	B	21.8	C	1.2	N	15.5	B	0.4	N
6	Del Mar Heights Road / Mango Drive	33.3	C	31.4	C	34.2	C	0.9	N	33.5	D	2.1	N
7	Del Mar Heights Road / Portofino Drive	9.4	A	9.2	A	9.6	A	0.2	N	9.3	A	0.1	N
8	Del Mar Heights Road / I-5 SB Ramps	24.8	C	23	C	29.6	C	4.8	N	24.6	C	1.6	N
9	Del Mar Heights Road / I-5 NB Ramps	39.6	D	38.3	D	49.2	D	9.6	N	43.5	D	5.2	N
10	Del Mar Heights Road / High Bluff Drive	28.5	C	32.1	C	28.9	C	0.4	N	41.3	D	9.2	N
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	5.9	A	0.0	N	10	A	0.0	N
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	4.2	A	0.0	N	10.7	B	0.0	N
13	Del Mar Heights Road / El Camino Real	29.9	C	29.5	C	32.1	C	2.2	N	37	D	7.5	N
14	Del Mar Heights Road / Carmel Country Rd	22.9	C	21.1	C	25.7	C	2.8	N	23.5	C	2.4	N
15	Del Mar Heights Road / Torrey Ridge Drive	23.6	C	11.9	B	24.8	C	1.2	N	16.4	B	4.5	N
16	Del Mar Heights Road / Lansdale Drive	19	B	17.6	B	20.4	C	1.4	N	18.3	B	0.7	N
17	Del Mar Heights Road / Carmel Canyon Rd	13.8	B	10.2	B	13.9	B	0.1	N	10.3	B	0.1	N
18	El Camino Real / Del Mar Highlands Town Ctr.	6.8	A	13.5	B	14	B	7.2	N	22.6	A	9.1	N
19	Carmel Country Road / Townsgate Drive	26.5	C	21.8	C	27.2	C	0.7	N	27.2	C	5.4	N
20	El Camino Real / Townsgate Drive	21.3	C	20.7	C	21.3	C	0.0	N	20.7	C	0.0	N
21	Carmel Country Road / Carmel Creek Rd	58.6	E	24.1	C	60.4	E	1.8	N	26.1	C	2.0	N
22	El Camino Real / High Bluff Drive	21.1	C	26.2	C	23.3	C	2.2	N	27.7	C	1.5	N
23	Carmel View Road / High Bluff Drive	8.4	A	9.1	A	8.6	A	0.2	N	9.5	A	0.4	N
24	Carmel Creek Road / Carmel Grove Rd	27.8	C	17.5	B	27.8	C	0.0	N	17.6	B	0.1	N
25	Carmel Valley Road / I-5 SB Ramps	22.6	C	32.1	C	23.1	C	0.5	N	32.2	C	0.1	N
26	Carmel Valley Road / I-5 NB Ramps	13.6	B	20.4	C	13.7	B	0.1	N	20.5	C	0.1	N
27	El Camino Real / Valley Centre Drive	24.6	C	23.2	C	25	C	0.4	N	29.7	C	6.5	N
28	El Camino Real / Carmel Valley Rd	14.8	B	19.2	B	16.4	B	1.6	N	19.6	B	0.4	N
29	El Camino Real / SR-56 EB On Ramp	18	B	32.3	C	18.2	B	0.2	N	34	C	1.7	N
30	Carmel View Road / Valley Centre Drive	7.4	A	8.3	A	7.4	A	0.0	N	8.3	A	0.0	N
31	Carmel Creek Road / SR-56 WB Ramp	45.7	D	27	C	46.3	D	0.6	N	27.1	C	0.1	N
32	Carmel Creek Road / SR-56 EB Ramps	12.5	B	27.4	C	12.6	B	0.1	N	27.5	C	0.1	N
33	Carmel Country Road / Carmel Canyon Rd	33.1	C	25.6	C	35.7	D	2.6	N	25.9	C	0.3	N
34	Carmel Country Road / SR-56 WB Ramps	16.2	B	10.9	B	16.3	B	0.1	N	11.4	B	0.5	N
35	Carmel Country Road / SR-56 EB Ramps	14.1	B	11.7	B	14.1	B	0.0	N	11.9	B	0.2	N
36	Carmel Creek Road / Del Mar Trail	47.9	E	21.7	C	50.8	F	2.9	Y	22.6	C	0.9	N

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

DNE = Does not Exist

For Intersection #36, the worst approach delay and level of service was reported.

TABLE 19-17

Near Term With and Without Project Intersection LOS Summary

(Phase 1 & 2)

#	Intersection	Near Term				Near Term + Project (Phase 1 & 2)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	31.4	C	38.8	D	32.2	C	0.8	N	42.5	D	3.7	N
2	El Camino Real / San Dieguito Road	16.9	B	25.2	C	17.3	B	0.4	N	26.9	C	1.7	N
3	El Camino Real / Derby Downs Road	4.3	A	4.5	A	4.3	A	0.0	N	5.0	A	0.5	N
4	El Camino Real / Half Mile Drive	20.6	B	14.0	B	21.8	C	1.2	N	14.2	B	0.2	N
5	El Camino Real / Quarter Mile Drive	20.6	C	15.1	B	20.6	C	0.0	N	16.4	B	1.3	N
6	Del Mar Heights Road / Mango Drive	33.3	C	31.4	C	34.5	C	1.2	N	34.3	C	2.9	N
7	Del Mar Heights Road / Portofino Drive	9.4	A	9.2	A	9.6	A	0.2	N	9.4	A	0.2	N
8	Del Mar Heights Road / I-5 SB Ramps	24.8	C	23	C	28.7	C	3.9	N	27.8	C	4.8	N
9	Del Mar Heights Road / I-5 NB Ramps	39.6	D	38.3	D	49.8	D	10.2	N	50.5	D	12.2	N
10	Del Mar Heights Road / High Bluff Drive	28.5	C	32.1	C	31.3	C	2.8	N	56.2	E	24.1	Y
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	6.5	A	0.0	N	13.5	B	0.0	N
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	6	A	0.0	N	15.6	B	0.0	N
13	Del Mar Heights Road / El Camino Real	29.9	C	29.5	C	34.5	C	4.6	N	59.1	E	29.6	Y
14	Del Mar Heights Road / Carmel Country Rd	22.9	C	21.1	C	26.4	C	3.5	N	25.6	C	4.5	N
15	Del Mar Heights Road / Torrey Ridge Drive	23.6	C	11.9	B	26.0	C	2.4	N	11.9	B	0.0	N
16	Del Mar Heights Road / Lansdale Drive	19.0	B	17.6	B	20.4	C	1.4	N	18.4	B	0.8	N
17	Del Mar Heights Road / Carmel Canyon Rd	13.8	B	10.2	B	14.0	B	0.2	N	10.2	B	0.0	N
18	El Camino Real / Del Mar Highlands Town Ctr.	6.8	A	13.5	B	14.3	B	7.5	N	27.5	C	14.0	N
19	Carmel Country Road / Townsgate Drive	26.5	C	21.8	C	27.4	C	0.9	N	22.6	C	0.8	N
20	El Camino Real / Townsgate Drive	21.3	C	20.7	C	21.3	C	0.0	N	20.9	C	0.2	N
21	Carmel Country Road / Carmel Creek Rd	58.6	E	24.1	C	60.4	E	1.8	N	27.4	C	3.3	N
22	El Camino Real / High Bluff Drive	21.1	C	26.2	C	21.6	C	0.5	N	29.0	C	2.8	N
23	Carmel View Road / High Bluff Drive	8.4	A	9.1	A	8.7	A	0.3	N	9.7	A	0.6	N
24	Carmel Creek Road / Carmel Grove Rd	27.8	C	17.5	B	27.8	C	0.0	N	17.7	B	0.2	N
25	Carmel Valley Road / I-5 SB Ramps	22.6	C	32.1	C	22.8	C	0.2	N	32.6	C	0.5	N
26	Carmel Valley Road / I-5 NB Ramps	13.6	B	20.4	C	14.1	B	0.5	N	20.6	C	0.2	N
27	El Camino Real / Valley Centre Drive	24.6	C	23.2	C	32.7	C	8.1	N	29.8	C	6.6	N
28	El Camino Real / Carmel Valley Rd	14.8	B	19.2	B	15	B	0.2	N	19.8	B	0.6	N
29	El Camino Real / SR-56 EB On Ramp	18.0	B	32.3	C	18.6	B	0.6	N	35.1	D	2.8	N
30	Carmel View Road / Valley Centre Drive	7.4	A	8.3	A	7.4	A	0.0	N	8.3	A	0.0	N
31	Carmel Creek Road / SR-56 WB Ramp	45.7	D	27	C	46.6	D	0.9	N	30.6	C	3.6	N
32	Carmel Creek Road / SR-56 EB Ramps	12.5	B	27.4	C	12.6	B	0.1	N	27.6	C	0.2	N
33	Carmel Country Road / Carmel Canyon Rd	33.1	C	25.6	C	35.9	D	2.8	N	25.6	C	0.0	N
34	Carmel Country Road / SR-56 WB Ramps	16.2	B	10.9	B	16.2	B	0.0	N	12.3	B	1.4	N
35	Carmel Country Road / SR-56 EB Ramps	14.1	B	11.7	B	14.3	B	0.2	N	12.1	B	0.4	N
36	Carmel Creek Road / Del Mar Trail	47.9	E	21.7	C	52.0	F	4.1	Y	23.8	C	2.1	N

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

DNE = Does not Exist

For Intersection #36, the worst approach delay and level of service is reported.

TABLE 19-18

Near Term With and Without Project Intersection LOS Summary

(Build-out)

#	Intersection	Near Term				Near Term + Project (Build-out)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	31.4	C	38.8	D	32.5	C	1.1	N	45.3	D	6.5	N
2	El Camino Real / San Dieguito Road	16.9	B	25.2	C	17.4	B	0.5	N	27.6	C	2.4	N
3	El Camino Real / Derby Downs Road	4.3	A	4.5	A	4.3	A	0.0	N	5	A	0.5	N
4	El Camino Real / Half Mile Drive	20.6	B	14.0	B	22.4	C	1.8	N	14.2	B	0.2	N
5	El Camino Real / Quarter Mile Drive	20.6	C	15.1	B	20.6	C	0.0	N	17.9	B	2.8	N
6	Del Mar Heights Road / Mango Drive	33.3	C	31.4	C	35.1	D	1.8	N	35.9	D	4.5	N
7	Del Mar Heights Road / Portofino Drive	9.4	A	9.2	A	9.6	A	0.2	N	9.4	A	0.2	N
8	Del Mar Heights Road / I-5 SB Ramps	24.8	C	23	C	29.9	C	5.1	N	28.5	C	5.5	N
9	Del Mar Heights Road / I-5 NB Ramps	39.6	D	38.3	D	49.2	D	9.6	N	56.1	E	17.8	Y
10	Del Mar Heights Road / High Bluff Drive	28.5	C	32.1	C	34.2	C	5.7	N	57	E	24.9	Y
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	8.5	A	0.0	N	21.4	C	0.0	N
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	7.9	A	0.0	N	25.3	C	0.0	N
13	Del Mar Heights Road / El Camino Real	29.9	C	29.5	C	37.4	D	7.5	N	62.9	E	33.4	Y
14	Del Mar Heights Road / Carmel Country Rd	22.9	C	21.1	C	27.3	C	4.4	N	28.2	C	7.1	N
15	Del Mar Heights Road / Torrey Ridge Drive	23.6	C	11.9	B	26.3	C	2.7	N	12	B	0.1	N
16	Del Mar Heights Road / Lansdale Drive	19.0	B	17.6	B	20.8	C	1.8	N	19.7	B	2.1	N
17	Del Mar Heights Road / Carmel Canyon Rd	13.8	B	10.2	B	14	B	0.2	N	10.7	B	0.5	N
18	El Camino Real / Del Mar Highlands Town Ctr.	6.8	A	13.5	B	15.6	B	8.8	N	30.8	C	17.3	N
19	Carmel Country Road / Townsgate Drive	26.5	C	21.8	C	27.7	C	1.2	N	23.2	C	1.4	N
20	El Camino Real / Townsgate Drive	21.3	C	20.7	C	21.6	C	0.3	N	22.3	C	1.6	N
21	Carmel Country Road / Carmel Creek Rd	58.6	E	24.1	C	60.4	E	1.8	N	28.6	C	4.5	N
22	El Camino Real / High Bluff Drive	21.1	C	26.2	C	22.2	C	1.1	N	30.6	C	4.4	N
23	Carmel View Road / High Bluff Drive	8.4	A	9.1	A	8.8	A	0.4	N	10	A	0.9	N
24	Carmel Creek Road / Carmel Grove Rd	27.8	C	17.5	B	27.9	C	0.1	N	17.9	B	0.4	N
25	Carmel Valley Road / I-5 SB Ramps	22.6	C	32.1	C	23	C	0.4	N	33.1	C	1.0	N
26	Carmel Valley Road / I-5 NB Ramps	13.6	B	20.4	C	14.1	B	0.5	N	20.8	C	0.4	N
27	El Camino Real / Valley Centre Drive	24.6	C	23.2	C	32.9	C	8.3	N	30.5	C	7.3	N
28	El Camino Real / Carmel Valley Rd	14.8	B	19.2	B	15.1	B	0.3	N	20	B	0.8	N
29	El Camino Real / SR-56 EB On Ramp	18.0	B	32.3	C	18.8	B	0.8	N	35.8	D	3.5	N
30	Carmel View Road / Valley Centre Drive	7.4	A	8.3	A	7.4	A	0.0	N	8.3	A	0.0	N
31	Carmel Creek Road / SR-56 WB Ramp	45.7	D	27	C	46.8	D	1.1	N	30.8	C	3.8	N
32	Carmel Creek Road / SR-56 EB Ramps	12.5	B	27.4	C	12.6	B	0.1	N	27.8	C	0.4	N
33	Carmel Country Road / Carmel Canyon Rd	33.1	C	25.6	C	35.9	D	2.8	N	25.8	C	0.2	N
34	Carmel Country Road / SR-56 WB Ramps	16.2	B	10.9	B	16.2	B	0.0	N	12.4	B	1.5	N
35	Carmel Country Road / SR-56 EB Ramps	14.1	B	11.7	B	14.3	B	0.2	N	12.2	B	0.5	N
36	Carmel Creek Road / Del Mar Trail	47.9	E	21.7	C	53.5	F	5.6	Y	25.1	D	3.4	N

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D= Delay

DNE = Does not Exist

DIRECT IMPACTS cont.:

FREEWAY SEGMENTS:

There are no freeway main-lane significant direct project impacts for Phase 1 as shown in **Table 19-19**.

Phases 1&2 show no freeway main-lane significant direct project impacts, see **Table 19-20**. Project

Build-out shows no freeway main-lane significant direct project impacts, see **Table 19-21**.

RAMP METERS:

Project Phase 1 – The proposed project during this phase has no significant direct ramp meter impacts as shown in **Table 19-22**.

Project Phase 1 & 2 – The proposed project during this phase has no significant direct ramp meter impacts as shown in **Table 19-23**.

Project Build-out – The proposed project during this final phase has no significant direct ramp meter impacts as shown in **Table 19-24**.

TABLE 19-19

Near Term With & Without Project Freeway Summary

(Phase 1)

Segment	Lanes	Capacity	Dir.	Near Term		Near Term with Project (Phase 1)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6354	C	0.6374	C	0.0020	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6558	C	0.6578	C	0.0020	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6481	C	0.6505	C	0.0024	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6688	C	0.6713	C	0.0025	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5596	B	0.5637	B	0.0041	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5774	B	0.5817	B	0.0042	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5778	B	0.5798	B	0.0020	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6325	C	0.6347	C	0.0022	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5613	B	0.5628	B	0.0015	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5512	B	0.5528	B	0.0015	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8461	D	0.8481	D	0.0020	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8676	D	0.8697	D	0.0020	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7881	C	0.7901	D	0.0020	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.8082	D	0.8102	D	0.0020	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP= # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln.

#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1,680 veh/hr/ln taken from Caltrans Guide, December 2002)

AX = Auxiliary Lane with LOS "E" capacity of 1,800 veh/hr/ln.

HOV = High Occupancy Vehicle lane with LOS "E" capacity of 1,600 veh/hr/ln.

TABLE 19-20
Near Term With & Without Project Freeway Summary
(Phase 1 & 2)

Segment	Lanes	Capacity	Dir.	Near Term		Near Term + Project (Phase 1 & 2)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6354	C	0.6390	C	0.0035	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6558	C	0.6594	C	0.0037	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6481	C	0.6524	C	0.0043	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6688	C	0.6733	C	0.0045	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5596	B	0.5670	B	0.0074	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5774	B	0.5851	B	0.0076	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5778	B	0.5813	B	0.0036	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6325	C	0.6364	C	0.0039	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5613	B	0.5641	B	0.0028	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5512	B	0.5540	B	0.0027	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8461	D	0.8496	D	0.0036	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8676	D	0.8713	D	0.0037	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7881	C	0.7917	D	0.0036	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.8082	D	0.8118	D	0.0037	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP= # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln.

#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1,680 veh/hr/ln taken from Caltrans Guide, December 2002)

AX = Auxiliary Lane with LOS "E" capacity of 1,800 veh/hr/ln.

HOV = High Occupancy Vehicle lane with LOS "E" capacity of 1,600 veh/hr/ln.

TABLE 19-21
Near Term With & Without Project Freeway Summary
(Build-out)

Segment	Lanes	Capacity	Dir.	Near Term		Near Term + Project (Build-out)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.6354	C	0.6408	C	0.0054	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.6558	C	0.6613	C	0.0055	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.6481	C	0.6546	C	0.0066	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.6688	C	0.6756	C	0.0068	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.5596	B	0.5708	B	0.0112	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.5774	B	0.5890	B	0.0116	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.5778	B	0.5832	B	0.0054	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.6325	C	0.6384	C	0.0059	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.5613	B	0.5655	B	0.0042	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.5512	B	0.5554	B	0.0041	NO
SR-56									
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	EB	0.8461	D	0.8507	D	0.0046	NO
El Camino Real / Carmel Creek Rd.	2-GP + 1-AX	6,500	WB	0.8676	D	0.8723	D	0.0047	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	EB	0.7881	C	0.7927	D	0.0046	NO
Carmel Creek Rd. / Carmel Country Rd.	2-GP + 1-AX	6,500	WB	0.8082	D	0.8129	D	0.0047	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP= # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln.

#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1,680 veh/hr/ln taken from Caltrans Guide, December 2002)

AX = Auxiliary Lane with LOS "E" capacity of 1,800 veh/hr/ln.

HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 veh/hr/ln.

TABLE 19-22

Near Term With & Without Project Ramp Meter Summary

(Phase 1)

Most Restrictive Meter Rate

Location		Near Term		Near Term + Project (Phase 1)		Δ	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	9.29	1,653	11.17	1,987	1.88	NO
	PM	0.00	0	3.42	609	3.42	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	1.26	363	1.26	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

Meter rates are based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

TABLE 19-23

Near Term With & Without Project Ramp Meter Summary

(Phase 1 & 2)

Most Restrictive Meter Rate

Location		Near Term		Near Term + Project (Phase 1 & 2)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	9.29	1,653	13.86	2,465	4.57	NO
	PM	0.00	0	10.52	1,871	10.52	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	3.14	899	3.14	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

Meter rates are based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

TABLE 19-24

Near Term With & Without Project Ramp Meter Summary

(Build-out)

Most Restrictive Meter Rate

Location		Near Term		Near Term + Project (Buildout)		Δ	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
		Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	9.29	1,653		
	PM	0.00	0	15.16	2,697	15.16	NO
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	Meter is not turned on				0.00	NO
	PM	0.00	0	5.01	1,436	5.01	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

Meter rates are based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

19.8 LONG TERM CUMULATIVE (YEAR 2030) WITH & WITHOUT PROJECT

LONG TERM CUMULATIVE IMPACTS:

STREET SEGMENTS:

Street segments operating at an unacceptable level of service in these conditions were discussed in Section 12.0 & 13.0. The street segment Long Term Cumulative (Year 2030) significant impacts are shown on **Table 19-25**. These tables summarize impacts shown in yellow which are expected to occur on street segments in the Year 2030 conditions. As shown in **Table 19-25**, there are three (3) Long Term Cumulative significant street segment impacts.

Proposed mitigation for these street segment impacts is discussed in Section 19.9.

INTERSECTIONS:

Intersections operating at an unacceptable level of service in these conditions were discussed in Section 12.0 & 13.0. The Long Term Cumulative significant intersection impacts are shown in **Table 19-26**. As shown, there are seven (7) Long Term Cumulative significant intersection impacts at five intersections. These intersection impacts are considered Long Term Cumulative impacts and only require a fair-share contribution. Proposed mitigation for these intersection impacts is discussed in Section 19.9.

TABLE 19-25

Year 2030 With & Without Project Street Segment LOS Summary

(Build-out)

Road	Segment	Class.	Year 2030			Year 2030 + Project (Buildout)			Δ V/C	Is this impact Significant ?
			LOS	Volume	V/C	LOS	Volume	V/C		
Del Mar Heights Rd.	Mango Drive to Portofino Drive	5-M	D	39,580	0.880	D	41,639	0.930	0.050	NO
	Portofino Drive to I-5 Southbound Ramps	5-PA	C	39,580	0.792	D	42,815	0.856	0.065	NO
	I-5 SB Ramps and I-5 NB Ramps	5-PA	C	37,820	0.756	D	43,482	0.870	0.113	NO
	I-5 Northbound Ramps to High Bluff Drive	PA	D	51,800	0.863	F	62,315	1.039	0.175	YES
	High Bluff Drive to Third Avenue	PA	C	42,770	0.713	D	54,902	0.915	0.202	NO
	Thirth Avenue to First Avenue	PA	C	42,770	0.713	D	53,824	0.897	0.184	NO
	First Avenue to El Camino Real	PA	C	42,770	0.713	D	53,824	0.897	0.184	NO
	El Camino Real to Carmel Country Road	PA	C	38,370	0.640	C	46,189	0.770	0.130	NO
	Carmel Country Road to Torrey Ridge Road	PA	B	34,400	0.573	C	37,905	0.632	0.058	NO
	Torrey Ridge Road to Lansdale Drive	PA	B	34,400	0.573	C	36,826	0.614	0.040	NO
Lansdale Drive to Carmel Canyon Road	PA	B	34,400	0.573	C	35,748	0.596	0.022	NO	
El Camino Real	Via de la Valle to San Dieguito Road	2-Ca	F	31,320	2.088	F	32,129	2.142	0.054	YES
	San Dieguito Road to Derby Downs Road	4-M	C	29,000	0.725	D	30,078	0.752	0.027	NO
	Derby Downs Road to Half Mile Drive	4-M	C	29,000	0.725	D	30,078	0.752	0.027	NO
	Half Mile Drive to Quarter Mile Drive	4-M	C	29,000	0.725	D	30,348	0.759	0.034	NO
	Quarter Mile Drive to Del Mar Heights Road	4-M	C	29,000	0.725	D	30,618	0.765	0.040	NO
	Del Mar Heights Road to Townsgate Drive	6-M	B	23,000	0.460	C	28,392	0.568	0.108	NO
	Townsgate Drive to High Bluff Drive	6-M	B	26,000	0.520	C	29,505	0.590	0.070	NO
	High Bluff Drive to Valley Centre Drive	6-M	C	35,620	0.712	C	38,046	0.761	0.049	NO
Valley Centre Drive to Carmel Valley Road	5-M	D	36,470	0.810	D	38,088	0.846	0.036	NO	
Carmel Country Road	Del Mar Heights Road to Townsgate Drive	4-M	C	22,280	0.557	C	24,976	0.624	0.067	NO
	Townsgate Drive to Carmel Creek Road	4-M	B	18,800	0.470	B	20,957	0.524	0.054	NO
	Carmel Creek Road to Carmel Canyon Road	4-M	A	13,590	0.340	A	14,938	0.373	0.034	NO
	Carmel Canyon Road to SR-56 WB Ramps	4-M	C	26,000	0.650	C	27,078	0.677	0.027	NO
Carmel Canyon Road	Del Mar Heights Road to Carmel Country Rd.	4-M	A	13,000	0.325	A	13,539	0.338	0.013	NO
Carmel Creek Road	Carmel Country Road to Carmel Grove Road	4-M	B	15,000	0.375	B	15,809	0.395	0.020	NO
	Carmel Grove Road to SR-56 WB Ramps	4-M	B	17,000	0.425	B	17,809	0.445	0.020	NO
Valley Centre Drive	Carmel View Road to Carmel Creek Road	4-C	D	20,000	0.667	D	20,270	0.676	0.009	NO
Carmel Valley Road	I-5 Northbound Ramps to El Camino Real	PA	C	43,020	0.717	C	43,559	0.726	0.009	NO
High Bluff Drive	Del Mar Heights Road to El Camino Real	2-Ca	D	11,700	0.780	D	12,509	0.834	0.054	NO
Via de la Valle	San Andres Drive to El Camino Real (West)	2-Cb	F	33,100	3.310	F	33,639	3.364	0.054	YES

Legend:

LOS= Level of Service
V/C= Volume to Capacity Ratio
ΔV/C= Change in V/C ratio

5-M = 5 lane Major with LOS E capacity of 45,000 ADT
5-PA = 5 lane Primary Arterial with LOS E capacity of 50,000 ADT
4-M=4 lane Major
2-Ca=2 lane collector
2-Cb = 2 lane Collector with no fronting property

PA = 6 lane Primary Arterial
6-M = 6 lane Major

TABLE 19-26
Year 2030 With & Without Project Intersection Summary
(Build-out)

#	Intersection	Year 2030				Year 2030 + Project (Buildout)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	El Camino Real / Via de la Valle	22.2	C	19.1	B	23.1	C	0.9	No	20.4	C	1.3	No
2	El Camino Real / San Dieguito Road	24.2	C	47.2	D	26.7	C	2.5	No	52.5	D	5.3	No
3	El Camino Real / Derby Downs Road	4.3	A	5.1	A	4.3	A	0.0	No	5.1	A	0.0	No
4	El Camino Real / Half Mile Drive	22.9	C	14.0	B	24.8	C	1.9	No	14.1	B	0.1	No
5	El Camino Real / Quarter Mile Drive	20.6	C	12.1	B	25.2	C	4.6	No	12.7	B	0.6	No
6	Del Mar Heights Road / Mango Drive	36.8	D	29.3	C	39.6	D	2.8	No	35.7	D	6.4	No
7	Del Mar Heights Road / Portofino Drive	9.8	A	9.6	A	10.1	B	0.3	No	10.1	B	0.5	No
8	Del Mar Heights Road / I-5 SB Ramps	26.1	C	22.4	C	29	C	2.9	No	25.7	C	3.3	No
9	Del Mar Heights Road / I-5 NB Ramps	71.5	E	55.5	E	107.1	F	35.6	Yes	94.0	F	38.5	Yes
10	Del Mar Heights Road / High Bluff Drive	44.0	D	40.1	D	55.3	E	11.3	Yes	80.2	F	40.1	Yes
11	Del Mar Heights Road / Third Avenue	DNE	DNE	DNE	DNE	8.3	A	0.0	No	20.7	C	0.0	No
12	Del Mar Heights Road / First Avenue	DNE	DNE	DNE	DNE	7.7	A	0.0	No	20.9	C	0.0	No
13	Del Mar Heights Road / El Camino Real	35.0	C	41.5	D	50.8	D	15.8	No	84.1	F	42.6	Yes
14	Del Mar Heights Road / Carmel Country Rd	33.6	C	34.1	C	41.3	D	7.7	No	49.3	D	15.2	No
15	Del Mar Heights Road / Torrey Ridge Drive	29.5	C	11.9	B	33.1	C	3.6	No	14.4	B	2.5	No
16	Del Mar Heights Road / Lansdale Drive	32.7	C	18.7	B	41.1	D	8.4	No	20.9	C	2.2	No
17	Del Mar Heights Road / Carmel Canyon Rd	29.4	C	16.0	B	29.8	C	0.4	No	17.2	B	1.2	No
18	El Camino Real / Del Mar Highlands Town Ctr.	6.2	A	14.2	B	17.4	B	11.2	No	33.7	C	19.5	No
19	Carmel Country Road / Townsgate Drive	32.0	C	29.8	C	32.9	C	0.9	No	34.6	C	4.8	No
20	El Camino Real / Townsgate Drive	22.5	C	24.3	C	22.7	C	0.2	No	35.4	D	11.1	No
21	Carmel Country Road / Carmel Creek Rd	41.5	D	19.7	B	45.7	D	4.2	No	21.5	C	1.8	No
22	El Camino Real / High Bluff Drive	22.9	C	33.6	C	24.4	C	1.5	No	40.0	D	6.4	No
23	Carmel View Road / High Bluff Drive	8.9	A	9.8	A	9.3	A	0.4	No	10.9	B	1.1	No
24	Carmel Creek Road / Carmel Grove Rd	15.3	B	11.4	B	15.3	B	0.0	No	17.3	B	5.9	No
25	Carmel Valley Road / I-5 SB Ramps	25.3	C	30.9	C	26.3	C	1.0	No	35.3	D	4.4	No
26	Carmel Valley Road / I-5 NB Ramps	26.8	C	19.6	B	27.3	C	0.5	No	20.0	B	0.4	No
27	El Camino Real / Valley Centre Drive	22.0	C	27.4	C	22.2	C	0.2	No	29.3	C	1.9	No
28	El Camino Real / Carmel Valley Rd	22.0	C	17.6	B	22.2	C	0.2	No	19.2	B	1.6	No
29	El Camino Real / SR-56 EB On Ramp	23.1	C	89.0	F	23.6	C	0.5	No	97.6	F	8.6	Yes
30	Carmel View Road / Valley Centre Drive	7.7	A	6.2	A	7.7	A	0.0	No	6.2	A	0.0	No
31	Carmel Creek Road / SR-56 WB Ramp	47.0	D	42.6	D	54.2	D	7.2	No	53.3	D	10.7	No
32	Carmel Creek Road / SR-56 EB Ramps	15.0	B	22.9	C	15.0	B	0.0	No	23.4	C	0.5	No
33	Carmel Country Road / Carmel Canyon Rd	34.5	C	33.4	C	36.6	D	2.1	No	34.1	C	0.7	No
34	Carmel Country Road / SR-56 WB Ramps	17.1	B	9.9	A	17.1	B	0.0	No	12.7	B	2.8	No
35	Carmel Country Road / SR-56 EB Ramps	20.1	C	18.2	B	22.0	C	1.9	No	18.7	B	0.5	No
36	Carmel Creek Road / Del Mar Trail	43.3	E	20.6	C	48.3	E	5.0	Yes	23.6	C	3.0	No

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D= Delay

DNE = Does not exist

For Intersection #36, the worst approach delay and level of service is reported.

LONG TERM CUMULATIVE IMPACTS CONTINUED:

FREEWAY SEGMENTS:

Freeway segments operating at an unacceptable level of service in Year 2030 with and without the project were discussed in Section 12.0 & 13.0. As shown in **Table 19-27**, there are NO freeway segment cumulative significant impacts, therefore, no mitigation is required.

RAMP METERS:

The ramp meter analysis for the I-5 / Del Mar Heights Rd. northbound and southbound ramps and SR-56 EB on ramps at El Camino Real and Carmel Country Road in Year 2030 with and without the project is discussed in Section 12.0 & 13.0. As shown in **Table 19-28**, there are three (3) cumulative significant impacts at two ramps. If the change in delay exceeds two minutes and the freeway level of service is “F”, then the ramp is considered significant and mitigation is required. Proposed mitigation for these ramp meter impacts is discussed in Section 19.9.

TABLE 19-27
Year 2030 With & Without Project Freeway Summary
(Build-out)

Segment	Lanes	Capacity	Dir.	Year 2030		Year 2030 + Project (Buildout)		Δ	Sig.?
				V/C	LOS	V/C	LOS		
I-5									
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	NB	0.7370	C	0.7424	C	0.0054	NO
Lomas Santa Fe Drive/Via De La Valle	4-GP+1-AX+1-HOV	12,800	SB	0.7608	C	0.7663	C	0.0055	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	NB	0.7771	C	0.7837	C	0.0066	NO
Via De La Valle/Del Mar Heights Rd.	5-GP+1-M	13,450	SB	0.8022	D	0.8090	D	0.0068	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	NB	0.6956	C	0.7068	C	0.0112	NO
Del Mar Heights Rd./ SR-56	6-GP+1-M	15,780	SB	0.7180	C	0.7296	C	0.0116	NO
SR-56/ Carmel Mountain Road	9-GP+1-M	22,830	NB	0.8172	D	0.8226	D	0.0054	NO
SR-56/ Carmel Mountain Road	8-GP+1-M	20,480	SB	0.8946	D	0.9005	D	0.0059	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	NB	0.7548	C	0.7590	C	0.0042	NO
Carmel Mountain Road/ I-805 Merge	10	23,500	SB	0.7413	C	0.7454	C	0.0041	NO
SR-56									
El Camino Real / Carmel Creek Rd.	3-GP + 1-AX	8,850	EB	0.9847	E	0.9881	E	0.0034	NO
El Camino Real / Carmel Creek Rd.	3-GP + 1-AX	8,850	WB	1.0098	F	1.0132	F	0.0035	NO
Carmel Creek Rd. / Carmel Country Rd.	3-GP + 1-AX	8,850	EB	0.9027	D	0.9061	D	0.0034	NO
Carmel Creek Rd. / Carmel Country Rd.	3-GP + 1-AX	8,850	WB	0.9257	E	0.9292	E	0.0035	NO

Legend:

Dir.= Direction

V/C= Volume to Capacity Ratio

LOS= Level of Service

Sig.?= Is this significant?

#-GP= # of General Purpose Lanes with LOS E capacity of 2,350 veh/hr/ln.

#-M=# of Managed Lanes (Capacity for LOS "C" assumed at 1,680 veh/hr/ln taken from Caltrans Guide, December 2002)

AX = Auxiliary Lane with LOS "E" capacity of 1,800 veh/hr/ln.

HOV = High Occupancy Vehicle lane with LOS"E" capacity of 1,600 veh/hr/ln.

TABLE 19-28

Year 2030 With & Without Project Ramp Meter Summary

(Build-out)

Most Restrictive Meter Rate

Location		Year 2030		Year 2030 With Project (Buildout)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	40.27	7,163	47.61	8,468	7.34	YES
	PM	5.22	928	29.84	5,307	24.62	YES
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	0.00	0	1.37	392	1.37	NO
	PM	8.30	2,378	16.04	4,597	7.74	YES
El Camino Real / SR-56 EB on Ramp	AM	0.00	0	0.00	0	0.00	NO
	PM	3.93	2,277	4.78	2,770	0.85	NO
Carmel Country Rd. / SR-56 EB on Ramp	AM	0.00	0	0.00	0	0.00	NO
	PM	0.00	0	0.00	0	0.00	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, if change in delay is greater than 2 minutes and delay is greater than 15 minutes

Meter rates are based on the most restrictive meter rate provided by Caltrans, see **Appendix C**

15 Minute Max. Meter Rate

Location		Year 2030		Year 2030 With Project (Buildout)		∇	S
		Delay (Min)	Queue (Ft)	Delay (Min)	Queue (Ft)		
Del Mar Heights Rd. / I-5 SB on Ramp (Westbound Loop)	AM	15.0	3,567	20.5	4,872	5.5	YES
	PM	15.0	2,320	43.3	6,699	28.3	YES
Del Mar Heights Rd. / I-5 SB on Ramp (Eastbound)	AM	15.0	2,291	15.0	2,291	0.0	NO
	PM	15.0	1,740	15.0	1,740	0.0	NO
Del Mar Heights Rd. / I-5 NB on Ramp	AM	15.0	3,393	17.8	4,031	2.8	YES
	PM	15.0	3,915	23.6	6,148	8.6	YES
El Camino Real / SR-56 EB on Ramp	AM	15.0	4,060	15.5	4,205	0.5	NO
	PM	15.0	7,415	16.0	7,903	1.0	NO
Carmel Country Rd. / SR-56 EB on Ramp	AM	15.0	1,914	16.1	2,059	1.1	NO
	PM	15.0	1,711	19.3	2,204	4.3	NO

Notes:

Δ = Change in Delay (minutes)

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 min.

S = Significant, the allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 min.

19.9 MITIGATION

Table 19-29 shows a summary of the proposed mitigation as the project is phased.

Table 19-30 summarizes the “with mitigation” levels of service which may be expected at intersections mitigated by the One Paseo project. **Table 19-31** summarizes the “with mitigation” levels of service which may be expected at street segments mitigated by the One Paseo project.

Table 19-32 shows a summary of the improvements and fair share contributions to the intersections that have significant impacts as a result of the project. The combined fair share contribution for all five intersection improvements is estimated at \$2,251,800.

Table 19-33 shows a summary of the improvements and fair share contributions to the street segments that have significant impacts as a result of the project. Per the City’s request, the Via de la Valle contribution is based similar to other projects in the area contributing to the widening project. The combined estimated fair share contribution for all six improvements is estimated at \$3,474,800. So the total mitigation cost for street, ramp and intersection impacts is estimated at \$5,726,600. **Table 19-34** shows the summary of project features. Appendix N includes the opinions of probable costs for each improvement. A conceptual striping layout of Del Mar Heights Road between the I-5 SB ramps and High Bluff Drive is included in Appendix N. Also included in Appendix N is a conceptual layout of the improvements to El Camino Real at SR-56 eastbound on-ramp. The widening of Del Mar Heights Road was evaluated to determine if widening is feasible, see Appendix N for details.

TABLE 19-29

Transportation Mitigation Phasing Plan

#	Location	Responsible Party	Improvement	Impact Fully Mitigated?	When Impact is Significant ?
Project Phase 1 9,888 ADT with 894 AM (768 in / 126 out) & 1,188 PM (312 in / 876 out) Peak Hour Trips Prior to issuance of first building permit, the following improvements shall be assured to the satisfaction of the City Engineer					
10	Del Mar Heights Rd. / High Bluff Dr.	One Paseo	Widen to provide a dedicated Northbound Right Turn Lane	Yes	Phase 1&2
11	Del Mar Heights Road / Third Avenue	One Paseo	Project Access to be Signalized: Add two left turn lanes and one right turn lane in the NB direction; Widen to add a WB left turn lane and an EB right turn lane.	Yes	Phase 1
12	Del Mar Heights Road / First Avenue	One Paseo	Project Access to be Signalized: Add one left turn lane and one right turn lane in the NB direction; Widen to provide two WB left turn lanes and an EB right turn lane.	Yes	Phase 1
13	Del Mar Heights Rd. / El Camino Real	One Paseo	Widen to provide a 365 foot long dedicated EB right turn lane	Yes	Phase 1 & 2
18	El Camino Real / Del Mar Highlands Town Center	One Paseo	Modify Signalized Intersection and Add EB leg: In the EB direction, provide a dedicated left turn lane and a left/through/right turn lane. In the NB direction, widen for a dual left turn lane; in the SB direction, widen for a right turn lane.	Yes	Phase 1
A	El Camino Real (Via de la Valle to San Dieguito Rd.)	City of San Diego CIP/One Paseo	Widen to a 4 lane major	Partially*	Phase 1
9	Del Mar Heights Rd. / I-5 NB Ramps	One Paseo	Modify I-5 NB On/Off Ramps: Widen Off-Ramp to include dual left and shared through/right and right turn lane at intersection; Extend WB right turn pocket by 845 feet; Reconfigure median on bridge to extend EB dual left turn pocket to 400 feet.	Partially	Project Buildout
BB	I-5 NB Ramp Meter / Del Mar Heights Road	One Paseo	Widen to provide HOV lane to NB on ramp	Yes	Project Buildout
B	Del Mar Heights Rd. (I-5 SB Ramps to I-5 NB Ramps) Bridge	One Paseo	Reconfigure median on bridge to extend EB dual left turn pocket to 400 feet.	Partially	Project Buildout
C	Del Mar Heights Rd. (I-5 NB Ramps to High Bluff Dr.)	One Paseo	Extend WB right turn pocket at I-5 NB ramps by 845 feet.	Partially	Phase 1
D	Via de la Valle (San Andres Dr. to El Camino Real)	One Paseo & Other Projects	Contribute fair share (19.4%) towards the widening to a 4 lane Major.	Partially*	Phase 1
36	Carmel Creek / Del Mar Trail	One Paseo	Signalize Intersection	Yes	Phase 1
Project Phase 2 17,812 ADT with 1,182 AM (910 in / 272 out) & 2,021 PM (747 in / 1,273 out) Peak Hour Trips Prior to issuance of first building permit in Phase 2, the following improvements shall be assured to the satisfaction of the City Engineer					
10	Del Mar Heights Rd. / High Bluff Dr.	One Paseo	Widen Del Mar Heights Road on north side receiving lanes and restripe and modify signal to provide third left turn lane in the NB direction. Modify EB & WB left turn lanes to dual left turn lanes. Widen EB approach by 2 feet on the south side to accommodate dual EB & WB left turn lanes.	Yes	Phase 1&2
Project Buildout 26,961 ADT with 1,538 AM (1,057 in / 481 out) & 2,932 PM (1,231 in / 1,701 out) Peak Hour Trips Prior to issuance of first building permit in Phase 3, the following fair share contributions shall be made to the satisfaction of the City Engineer					
AA	I-5 SB (Loop) Ramp Meter / Del Mar Heights Road	One Paseo & Other Projects	Contribute fair share (34.8%) towards widening to add an HOV lane to the on-ramp.	Partially	Project Buildout
29	El Camino Real / SR-56 EB On Ramp	One Paseo & Other Projects	Contribute fair share (3.5%) of the cost of the following improvement: Widen & Restripe EB approach to provide 1 left, 1 through/left, 1 through, and 2 dedicated right turn lanes	Yes	Project Buildout

Notes:

* Notwithstanding the applicant's fair share financial contribution, the timing of these improvements are uncertain and cannot be assured prior to the issuance of the first project building permit, therefore the impact is considered significant and partially mitigated.

AA & BB = Ramp Meters

All improvements and contributions are to be assured to the satisfaction of the City Engineer.

A,B,C, D = Street Segments

#s = Intersections

TABLE 19-30

Intersection Levels of Service With & Without Mitigation

Near Term + Project (Phase 1 & 2)

Number	Intersection	Control	Without Mitigation				With Mitigation			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
9	Del Mar Heights Road / I-5 NB Ramps*	Signalized	49.8	D	50.5	D	43.4	D	46.4	D
10	Del Mar Heights Road / High Bluff Drive*	Signalized	31.3	D	56.2	E	20.7	C	27.8	C
11	Del Mar Heights Road / Third Avenue*	Signalized	6.5	A	13.5	B	5.5	A	12.5	B
12	Del Mar Heights Road / First Avenue*	Signalized	6.0	A	15.6	B	5.0	A	10.0	B
13	Del Mar Heights Road / El Camino Real*	Signalized	34.5	C	59.1	E	34.2	C	45.6	D
29	El Camino Real / SR-56 EB On-Ramp	Signalized	18.6	B	35.1	D	18.3	B	28.0	C
36	Carmel Creek Road / Del Mar Trail**	Signalized	52.0	F	23.8	C	16.9	B	9.9	A

Near Term + Project (Build-out)

Number	Intersection	Control	Without Mitigation				With Mitigation			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
9	Del Mar Heights Road / I-5 NB Ramps*	Signalized	49.2	D	56.1	E	49.0	D	55.4	E
10	Del Mar Heights Road / High Bluff Drive*	Signalized	34.2	D	57	E	21.6	C	31.7	C
11	Del Mar Heights Road / Third Avenue*	Signalized	8.5	A	21.4	C	6.9	A	14.8	B
12	Del Mar Heights Road / First Avenue*	Signalized	7.9	A	25.3	C	7.0	A	12.7	B
13	Del Mar Heights Road / El Camino Real*	Signalized	37.4	D	62.9	E	34.5	C	49.7	D
29	El Camino Real / SR-56 EB On-Ramp	Signalized	18.8	B	35.8	D	18.5	B	28.8	C
36	Carmel Creek Road / Del Mar Trail**	Signalized	53.5	F	25.1	D	16.9	B	9.9	A

Year 2030 + Project (Build-out)

Number	Intersection	Control	Without Mitigation				With Mitigation			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
9	Del Mar Heights Road / I-5 NB Ramps*	Signalized	107.1	F	94.0	F	96.1	F	78.2	E
10	Del Mar Heights Road / High Bluff Drive*	Signalized	55.3	E	80.2	F	32.6	C	43.4	D
11	Del Mar Heights Road / Third Avenue*	Signalized	8.3	A	20.7	C	7.4	A	19.7	B
12	Del Mar Heights Road / First Avenue*	Signalized	7.7	A	20.9	C	8.6	A	17.5	B
13	Del Mar Heights Road / El Camino Real*	Signalized	50.8	D	84.1	F	44.9	D	50.2	D
29	El Camino Real / SR-56 EB On-Ramp	Signalized	23.6	C	97.6	F	23.5	C	53.4	D
36	Carmel Creek Road / Del Mar Trail**	Signalized	48.3	E	23.6	C	18.8	B	10.0	A

Notes:

LOS = Level of Service

* = Signals are coordinated.

Orange indicates unacceptable level of service.

**Intersection #36 is two-way stop controlled without mitigation.

TABLE 19-31
Street Segments Levels of Service With Mitigation

Near Term + Project (Phase 1 & 2)

Road	Segment	Jurisd.	Class.	Cap.	Volume	V/C	LOS
Del Mar Heights Rd.	I-5 SB Ramps and I-5 NB Ramps	SD	5-PA	50,000	44,953	0.90	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	61,721	1.03	F
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	4-M	40,000	27,088	0.68	C

Near Term + Project (Build-out)

Road	Segment	Jurisd.	Class.	Cap.	Volume	V/C	LOS
Del Mar Heights Rd.	I-5 SB Ramps and I-5 NB Ramps	SD	5-PA	50,000	46,874	0.94	E
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	65,290	1.09	F
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	4-M	40,000	27,271	0.68	C

Year 2030 + Project

Road	Segment	Jurisd.	Class.	Cap.	Volume	V/C	LOS
Del Mar Heights Rd.	I-5 SB Ramps and I-5 NB Ramps	SD	5-PA	50,000	43,482	0.87	D
	I-5 Northbound Ramps to High Bluff Drive	SD	PA	60,000	62,315	1.04	F
Via de la Valle	San Andres Drive to El Camino Real (West)	SD	4-M	40,000	33,639	0.84	D

Legend:

SD= City of San Diego 5-PA = 5 lane Prime Arterial has LOS E capacity of 50,000 ADT
 Cap.= Capacity PA = 6 lane Prime Arterial
 Class.= Classification 4-M=4 lane Major
 LOS= Level of Service
 V/C= Volume to Capacity Ratio

TABLE 19-32
Summary of Mitigation
(Intersections)

Location	Intersection	Direct or Cumulative Significant Impact?	Mitigation Responsibility	Description	Impact Fully or Partially Mitigated?	Current Estimated Cost of Improvement	Fair Share Percentage	Current Estimated Fair Share Contribution*
# 10	Del Mar Heights Rd. / High Bluff Dr.	Direct & Cumulative	One Paseo to construct	Widen to provide dedicated NB right turn lane at Phase 1 & widen Del Mar Heights Rd. on north side receiving lanes and restripe NB left and rephase signal to provide triple left. Modify EB & WB left turn lanes to dual left turn lanes. Widen EB approach by 2 feet on the south side to accommodate the EB & WB dual lefts.	Fully Mitigated	\$532,700	100.0%	\$532,700
# 13	Del Mar Heights Rd. / El Camino Real	Direct & Cumulative	One Paseo to construct	Widen to provide dedicated 365 foot long EB right turn lane	Fully Mitigated	\$463,400	100.0%	\$463,400
# 36	Camel Creek Rd. / Del Mar Trail	Direct & Cumulative	One Paseo to construct	Signalize	Fully Mitigated	\$200,000	100%	\$200,000
#9	Del Mar Heights Rd. / I-5 NB Ramps	Direct & Cumulative	One Paseo	Modify I-5 NB On/Off Ramps:Widen & Restripe off-ramp to include dual left, a shared through/right and right turn lanes.Extend WB right turn pocket by 845 feet; Reconfigure median on bridge to extend dual left turn pocket to 400 feet. ☞	Partially Mitigated	\$1,045,000	100.0%	\$1,045,000
# 29	El Camino Real / SR-56 EB On-Ramp	Cumulative	One Paseo & Other Projects	Widen & Restripe the EB approach to provide 1 left, 1 through/left, 1 through, and 2 dedicated right turn lanes	Fully Mitigated	\$305,100	3.5%	\$10,700
TOTAL ESTIMATED COST								\$2,251,800

* The actual dollar amount of the fair share contribution will depend on the cost estimate current at the time the payment is made, satisfactory to the City Engineer.
Note: ☞ Caltrans has identified improvements for the I-5 / Del Mar Heights Road interchange and SR-56 EB on-ramp at El Camino Real as the result of their continuing efforts to implement the I-5 / SR-56 connectors project as well as the I-5 North Coast Corridor project. See discussion in Section 19.10 in the report.

TABLE 19-33
Summary of Mitigation
(Street Segments & Ramp Meters)

Road	Street Segment	Direct or Cumulative Significant Impact?	Mitigation Responsibility	Description	Impact Mitigated? ²	Current Estimated Cost of Improvement	Fair Share Percentage	Current Estimated Fair Share Contribution ¹
Del Mar Heights Rd.	I-5 SB Ramps to I-5 NB Ramps (Bridge)	Direct ☉	One Paseo to construct	Reconfigure median on bridge to extend EB to NB dual left turn pocket to 400 feet	Partially	Cost is included in Int. # 9	100%	Cost is included in Int. # 9
El Camino Real	Via de la Valle to San Dieguito Road	Direct & Cumulative	City of San Diego CIP (T-12.3)	Widen to 4 lane Major	Partially	\$5,800,000	4.9%	\$284,000
Del Mar Heights Rd.	I-5 NB Ramps to High Bluff Dr.	Direct & Cumulative	One Paseo to construct	Widen to lengthen by 845 feet the WB right turn pocket at I-5 NB ramps and modify raised median.	Partially	Cost is included in Int. # 9	100%	Cost is included in Int. # 9
Via de la Valle	San Andres Dr. to El Camino Real	Direct & Cumulative	One Paseo & Other Projects	Widen to 4 lane Major	Partially	\$15,800,000	19.4%	\$3,069,000*
I-5 Southbound (Loop) Ramp Meter / Del Mar Heights Road		Cumulative	One Paseo & Other Projects	Widen to add an HOV lane to the loop ramp	Partially	\$350,000	34.8%	\$121,800
I-5 Northbound Ramp Meter / Del Mar Heights Road		Cumulative	One Paseo to construct	Widen to add an HOV lane to the ramp	Yes	Cost is included in Int. # 9	32.6%	Cost is included in Int. # 9
TOTAL ESTIMATED COST								\$3,474,800

* 539 ADT x \$5,692.61 per ADT = \$3,069,000

¹ The actual dollar amount of the fair share contribution will depend on the cost estimate current at the time the payment is made, satisfactory to the City Engineer.

² These impacts are partially mitigated due to a fair share contribution towards the improvement such as El Camino Real and Via de la Valle and/or improvements are consistent with Caltrans I-5 North Coast Corridor project, however, not below a level of significance.

Note: ☉ Caltrans has identified improvements for the I-5 / Del Mar Heights Road interchange as the result of their continuing efforts to implement the I-5 / SR-56 connectors project as well as the I-5 North Coast Corridor project. See discussion in Section 19.10 in the report.

TABLE 19-34
Summary of Project Features

Location	Intersection	Responsibility	Description
# 11 & 12	Del Mar Heights Road / Third & First Avenue	One Paseo to construct	Signalize Third & First Avenue. Include single left turn lane at Third Ave in the WB direction. Include dual left turn lane at First Ave in WB direction. Include dedicated right turn lanes for both Third and First Ave in the EB direction. Widen Del Mar Heights Road to include curb, gutter & sidewalk
# 18	El Camino Real / Market Street/Del Mar Highlands Town Center	One Paseo to construct	Modify signal to include fourth leg for project access. Widen to provide SB right turn lane. Modify median to provide dual lefts in the NB direction. In the EB direction, provide dedicated left turn lane, and a shared left, through, right turn lane.

19.10 CALTRANS MITIGATION

Extensive efforts by the project applicant to coordinate with Caltrans were initiated early in the process of preparing this traffic study. The following discussion is based on those coordination efforts. The northbound off-ramp, northbound on-ramp, and southbound loop on-ramp improvements at Del Mar Heights Road and I-5 were actually overlaid on the Caltrans interchange improvements to be sure improvements were consistent with Caltrans proposed improvements. These exhibits were then provided to Caltrans I-5 North Coast Corridor engineers and reviewed for consistency. Caltrans engineers determined that the applicants proposed interchange ramp improvements were in fact consistent with Caltrans Corridor improvements. The following discussion and concepts for ramp improvements were based on these coordination efforts with Caltrans engineers.

As discussed in this report, the project has impacts that require mitigation at the I-5 Del Mar Heights Road interchange, within the jurisdiction of Caltrans. **Figure 19-1** shows one concept for interchange improvements. This figure is from the CALTRANS FTP site for the I-5 North Coast Corridor Study and represents the most impactful alternative being considered by Caltrans, i.e. the 10 + 4 with buffer alternative.

As shown in the exhibit, there are six (6) northbound through lanes, five (5) southbound through lanes and four (4) median HOV lanes. The widening and main lane improvements are accomplished by building retaining walls under each end of the existing Del Mar Heights Road bridge, but the existing bridge itself is retained.

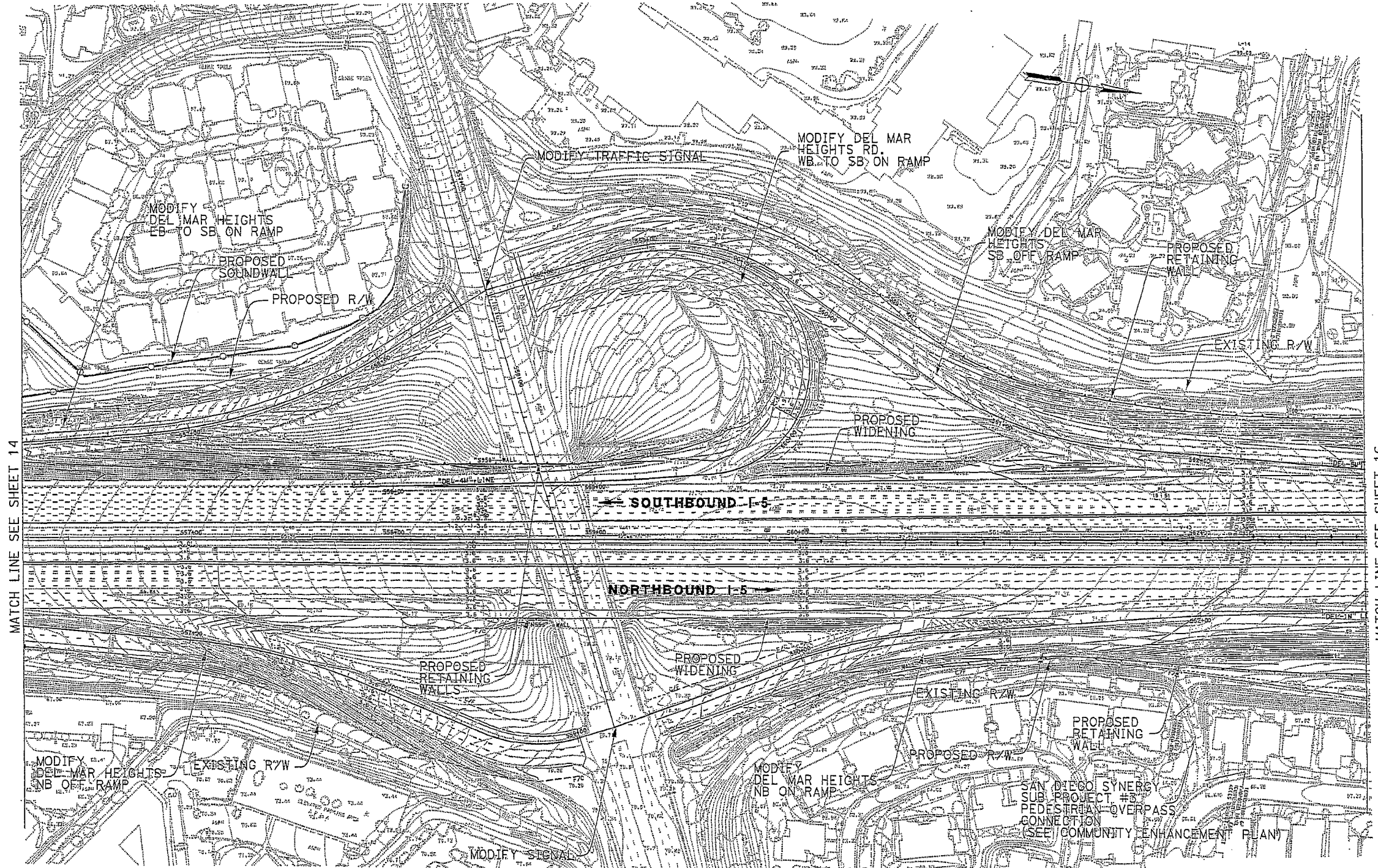
The proposed I-5 corridor improvements have not yet been approved. There is an extensive environmental review process and public information process underway. **Appendix R** summarizes the current status of review and anticipated schedule for Caltrans environmental review. **Table 19-35** summarizes this information. As shown in **Table 19-35**, the Caltrans EIR has been finalized from Manchester North to SR-78 but for the section of I-5 which includes the Del Mar Heights Road interchange, the main lane EIR is not planned to be complete until after July of 2012. Consequently, until an improvement option is selected or approved by Caltrans, a final recommendation for mitigation cannot be determined.

Figure 19-1 also shows northbound off ramp, northbound on ramp, and southbound loop on ramp improvements to add HOV or additional lanes. No improvements however are shown on Del Mar Heights Road itself. This is because Del Mar Heights Road is a City street, not within the jurisdiction of Caltrans.

FIGURE 19-1

Caltrans I-5 North Coast Corridor 10+4 with Buffer Alternative (Layout)

(See Next Page)




MATCH LINE SEE SHEET 14

MATCH LINE SEE SHEET 16

LEGEND			
-----	PROPOSED STRIPING	-----	EXISTING R/W
- - - - -	PROPOSED AUX LANE STRIPING	-----	PROPOSED R/W
=====	PROPOSED STRIPING	- - - - -	PROPOSED CUT AND FILL
=====	PROPOSED PAVEMENT EDGE	=====	PROPOSED CONTOUR GRADING
=====	PROPOSED RETAINING WALL	=====	PROPOSED STRUCTURE
=====	PROPOSED CONCRETE BARRIER	=====	PROPOSED DAR
=====	PROPOSED RETAINING WALL/BARRIER	=====	PROPOSED DETENTION BASIN
=====	PROPOSED SOUNDWALL	=====	PROPOSED BIOSWALE
=====	PROPOSED SYNERGY SUBPROJECT	=====	REMOVE/REPLACE GUARDRAIL

11-SD-5
 KP R54.9/R87.9
 11-235800

**I-5 NORTH COAST CORRIDOR
 10+4 with BUFFER ALTERNATIVE
 (LAYOUT)**


EXHIBIT A1

SCALE 1:2000
SHEET 15 OF 68

TABLE 19-35

North Coast Corridor Schedule

Project	Overall Schedule	DEIR/FEIR Schedule
I-5 North Coast/ Two HOV lanes (Manchester to SR-78)	Feb. 2010 to April 2019	DONE
Lomas Interchange / Two HOV lanes (Sorrento Valley Blvd. to N/O Lomas Santa Fe)	Jan. 2001 to Nov. 2016	Jan. 2001 to 2006 (Final EIR - July 2006)
I-5 North Coast/ Four main lanes (La Jolla Village Dr. to Vandergrift Blvd.)	May 2004 to Jan. 2013	Sept. 2005 to April 2010 (Final - July 2012)

Figure 19-2 A and B shows a conceptual striping layout for the northbound off ramp, northbound on ramp improvements with the additional HOV lane, plus improvements on Del Mar Heights Road.

In addition to the northbound off/on ramps, the eastbound left turn lanes are proposed to be extended on the Del Mar Heights Road bridge. The westbound right turn lane extension is intended to provide sufficient storage so that eastbound left turning vehicles onto the northbound I-5 on ramp do not extend beyond the turn lane thus blocking one of the two through lanes on Del Mar Heights Road. On Del Mar Heights Road between I-5 NB ramps and High Bluff Drive, the eastbound left/u-turn lane has been removed and reconstruction of the median is proposed to accommodate the extended WB right turn lane, see **Figure 19-2 A**.

Other suggested improvements shown on **Figure 19-2 A** include a longer west to northbound I-5 on right turn lane. Again, the purpose of the extension is to provide turn lane storage sufficient for future traffic growth to minimize or avoid blockage of through lanes on Del Mar Heights Road. Another design concept feature shown on this figure is eastbound to northbound dual left turn lanes from Del Mar Heights Road to High Bluff Drive. This feature improves overall traffic flow along Del Mar Heights Road but is not related to the interchange improvements.

Figure 19-2 C shows proposed westbound to southbound loop on ramp improvements. The addition of a HOV lane and elimination of the westbound free right turn lane along with realignment of the southbound on ramp are also proposed to improve interchange operation.

The traffic analysis bases the improvements identified and discussed in this section on a comparison of three different studies of future traffic conditions in the I-5 Del Mar Heights Road interchange area.

Appendix S contains these comparisons which are based upon:

FIGURE 19-2 A

(See Next Page)

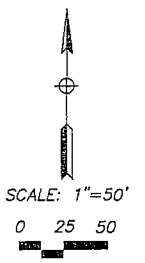
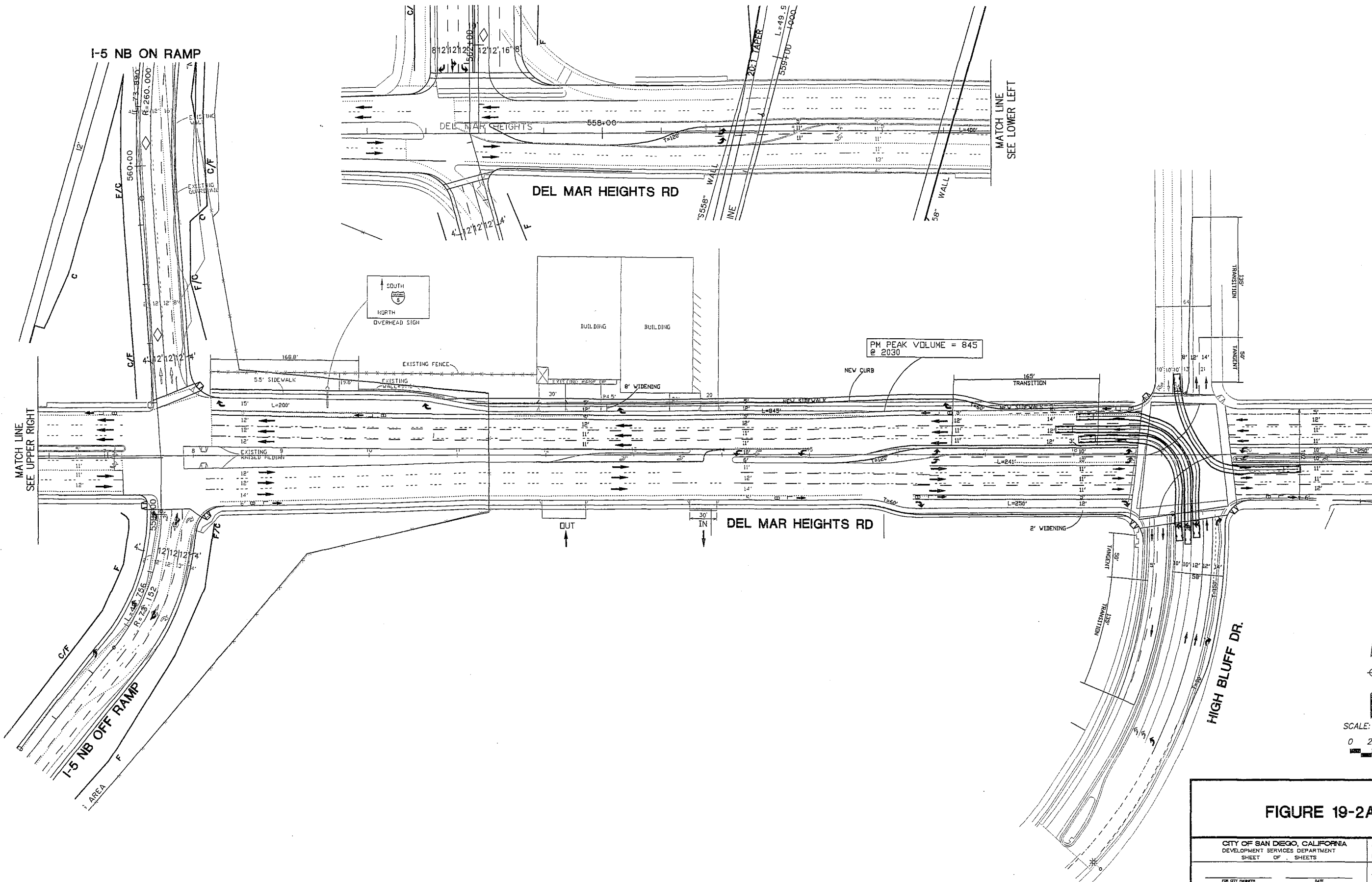


FIGURE 19-2A

CITY OF SAN DIEGO, CALIFORNIA DEVELOPMENT SERVICES DEPARTMENT SHEET OF SHEETS				W.G. NO. _____ P.T.S. NO. _____
FOR CITY ENGINEER	DATE	TM/IPM		
DESCRIPTION	BY	APPROVED	DATE	FILED
ORIGINAL	USAI			
				PID _____
				EOT _____
				NAD 83 COORDINATES _____
				LAMBERT COORDINATES _____
CONTRACTOR	DATE STARTED			
INSPECTOR	DATE COMPLETED			

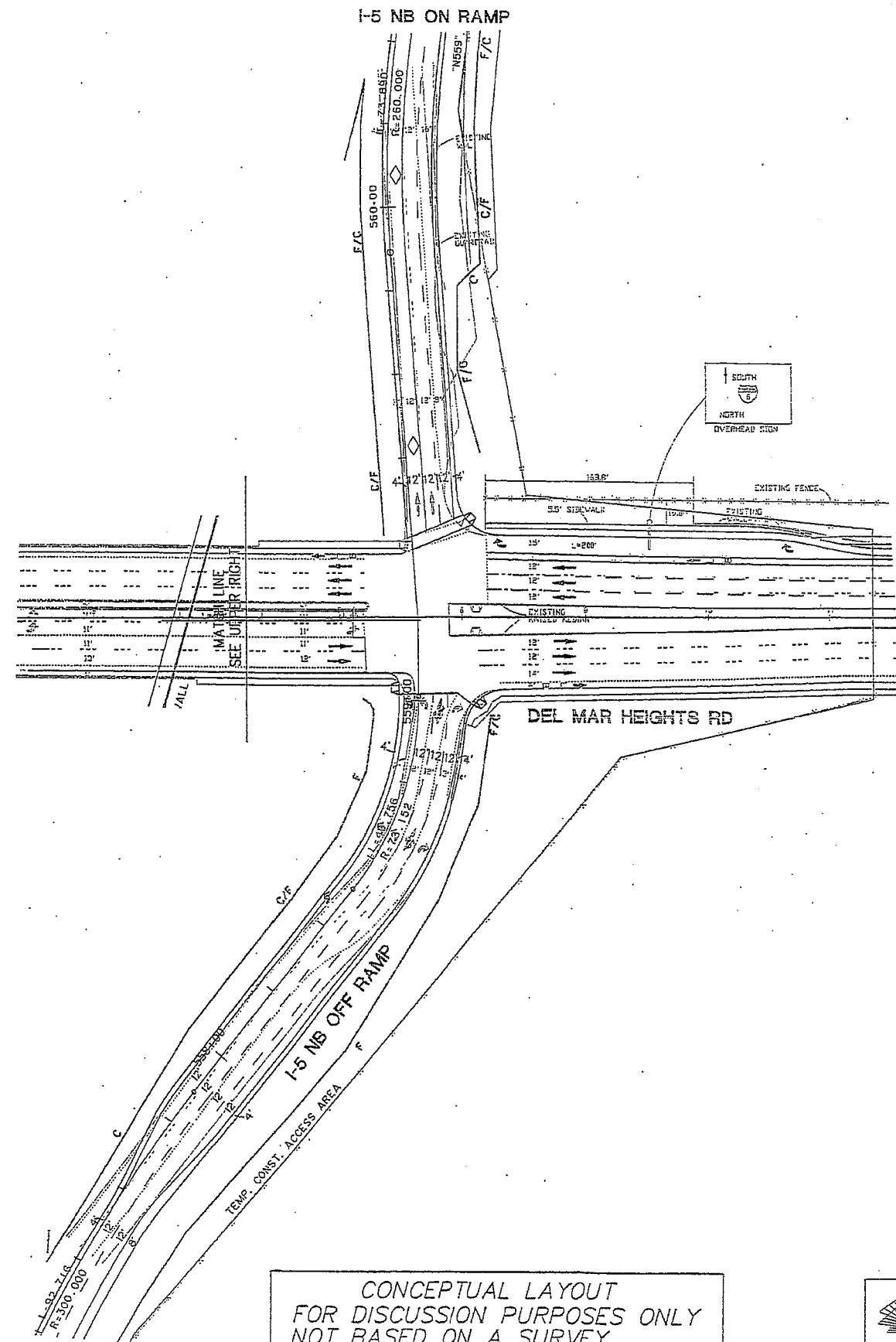
NOTE: PRELIMINARY OPINION OF COST BASED ON CONCEPTUAL PLANS WHICH ARE SUBJECT TO SIGNIFICANT CHANGE BASED ON AGENCY REVIEW AND APPROVAL.

CONCEPTUAL LAYOUT
FOR DISCUSSION PURPOSES ONLY
NOT BASED ON A SURVEY

URBAN SYSTEMS ASSOCIATES, INC.
4540 KEARNY VILLA ROAD, SUITE 106
SAN DIEGO, CA 92123, (619) 560-4911

FIGURE 19-2 B

(See Next Page)



NOTE: PRELIMINARY OPINION OF COST BASED ON CONCEPTUAL PLANS WHICH ARE SUBJECT TO SIGNIFICANT CHANGE BASED ON AGENCY REVIEW AND APPROVAL.

CONCEPTUAL LAYOUT FOR DISCUSSION PURPOSES ONLY NOT BASED ON A SURVEY

URBAN SYSTEMS ASSOCIATES, INC.
4540 KEARNY VILLA ROAD, SUITE 100
SAN DIEGO, CA 92123, (619) 580-4911

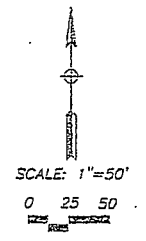
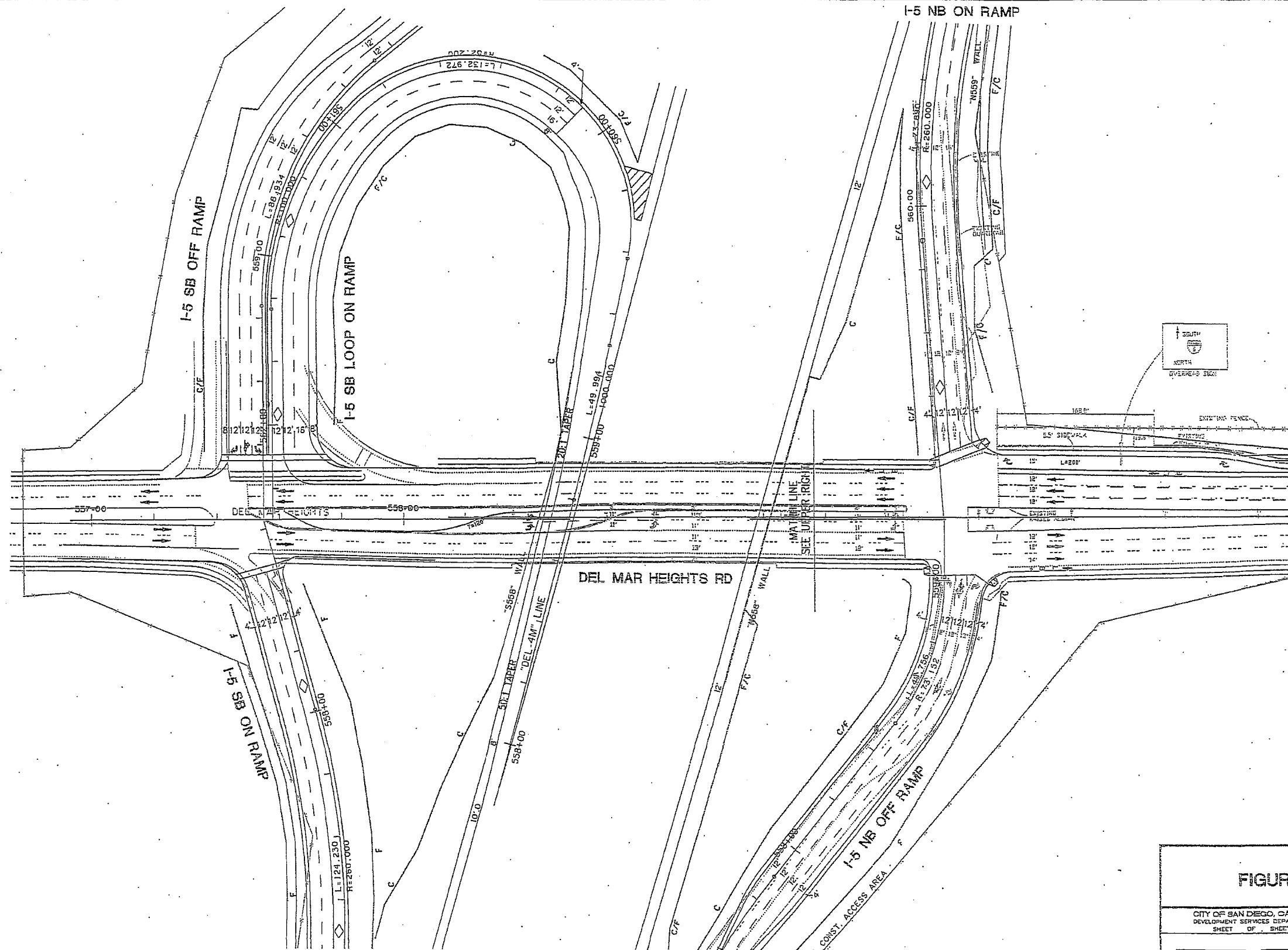


FIGURE 19-2B					
CITY OF SAN DIEGO, CALIFORNIA DEVELOPMENT SERVICES DEPARTMENT SHEET OF SHEETS					W.D. NO. _____ P.T.S. NO. _____
FOR CITY DOWNS					TL/TPH _____
DESCRIPTION	BY	APPROVED	DATE	FILED	PID _____
CREDIAL	USAI				EDT _____
					HAS AS CORRECTED _____
					LABORATORY _____
CONTRACTOR			DATE STARTED		
INSPECTOR			DATE COMPLETED		

FIGURE 19-2 C

(See Next Page)



NOTE: PRELIMINARY OPINION OF COST BASED ON CONCEPTUAL PLANS WHICH ARE SUBJECT TO SIGNIFICANT CHANGE BASED ON AGENCY REVIEW AND APPROVAL.

CONCEPTUAL LAYOUT FOR DISCUSSION PURPOSES ONLY NOT BASED ON A SURVEY

URBAN SYSTEMS ASSOCIATES, INC.
 4540 KEARNEY VILLA ROAD, SUITE 108
 SAN DIEGO, CA 92122, (619) 560-4311

FIGURE 19-2C				
CITY OF SAN DIEGO, CALIFORNIA DEVELOPMENT SERVICES DEPARTMENT SHEET OF SHEETS			W.D. NO.	
			P.T.S. NO.	
FOR CITY ENGINEER	DATE		TW/EPH	
DISCUSSION	BY	APPROVED	DATE	FILED
ORIGINAL	USAI			PG
				CDT
				NO. OF ESTIMATES
				LAUREN ESTIMATES
CONTRACTOR	DATE STARTED			
SUPERVISOR	DATE COMPLETED			

- A. The I-5 North Coast Corridor Study – The Wilson Co.
- B. The I-5/SR-56 Northbound Connector Study – LLG
- C. One Paseo (this project) Traffic Study – Urban Systems

As shown by the comparisons in this appendix, the Year 2030 future traffic volumes from all three studies are consistent.

In addition to the I-5 North Coast Corridor Study there is an I-5 / SR-56 connectors study also underway by Caltrans. Caltrans is presently studying 5 alternatives as summarized in **Table 19-36**. These alternatives are shown in **Figures 19-3 A, B, C and D**.

As discussed on **Table 19-36** and as illustrated on **Figures 19-3 A, B, C and D**, some of the connector study alternatives impact the I-5 Del Mar Heights Road bridge by either replacing or widening the bridge. If any of the replacement or bridge widening alternatives are selected in the future, then the ramp improvements illustrated in **Figures 19-2 A, B and C** may be rendered infeasible.

Because both the I-5 North Coast Corridor study and I-5/SR-56 Connector study propose widening by Caltrans, as of the time of preparation of this analysis, the future configuration of the I-5 Del Mar Heights Road interchange is uncertain. The applicant has met with Caltrans staff on numerous occasions to seek agreement on mitigation of the projects' impacts to Caltrans facilities in a manner consistent with the various Caltrans' improvements proposals detailed above. The following section discusses mitigation of the project's cumulative impacts through fair share contributions by the developer and/or physical improvements to the interchange.

TABLE 19-36

I-5 / SR-56 Connectors Alternatives

Project Description

1. No Build Alternative

The no build option contains no new construction and/or measures to mitigate changes in traffic conditions.

2. Auxiliary Lane Alternative (only local and freeway improvements, no connectors)

Includes widening of the city street and the freeway. This alternative would not construct either the Westbound to Northbound or the Southbound to Eastbound Connector. West of I-5, new retaining walls would be constructed on the existing slopes, but impacts would be east of the existing sound walls.

3. Direct Connector Alternative(includes the two missing connectors)

This alternative would require the realignment of Portofino Circle. To the North of Portofino Circle, new retaining walls are anticipated in the area of the existing sound walls. This alternative would require easements and would have right of way impacts, **but would not require acquisition of residence**

4. Hybrid Connector Alternative (one connector only)

Construct the Westbound to Northbound connector and the Auxiliary Lane Alternative components in the south to east direction. Please note: while studies are required for both Westbound/Northbound and Southbound/Eastbound connectors, if the cost and impacts of one significantly outweighs its benefits, that factor can cause only one to be constructed.

5. Modified Hybrid Connector Alternative

The Hybrid with Flyover Alternative is a variation of the Hybrid Alternative. This alternative includes a proposed flyover structure that would connect eastbound Carmel Valley Road to the eastbound SR-56 fast lane, in addition to the westbound SR-56 to northbound I-5 connector featured in the Direct Connector Alternative. The Hybrid with Flyover Alternative would require use of non-standard lane and shoulder widths along Carmel Valley Road and would require tunneling behind the Carmel Valley Road undercrossing abutments to provide pedestrian/bicycle access. The Hybrid with Flyover Alternative would provide operational improvements in the westbound and northbound directions and would provide slight operational improvements over the Hybrid Alternative in the southbound and eastbound directions.

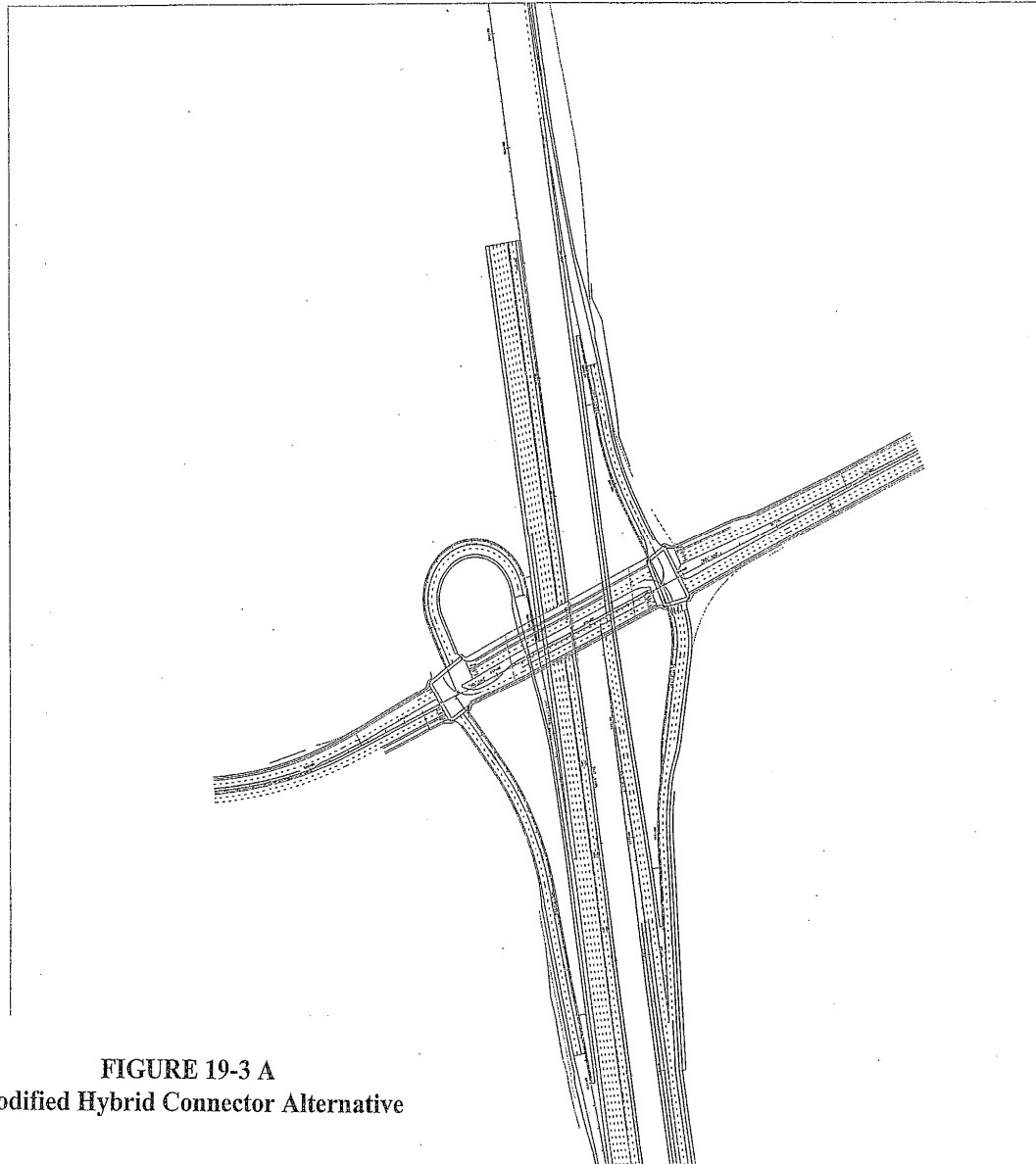


FIGURE 19-3 A
Modified Hybrid Connector Alternative

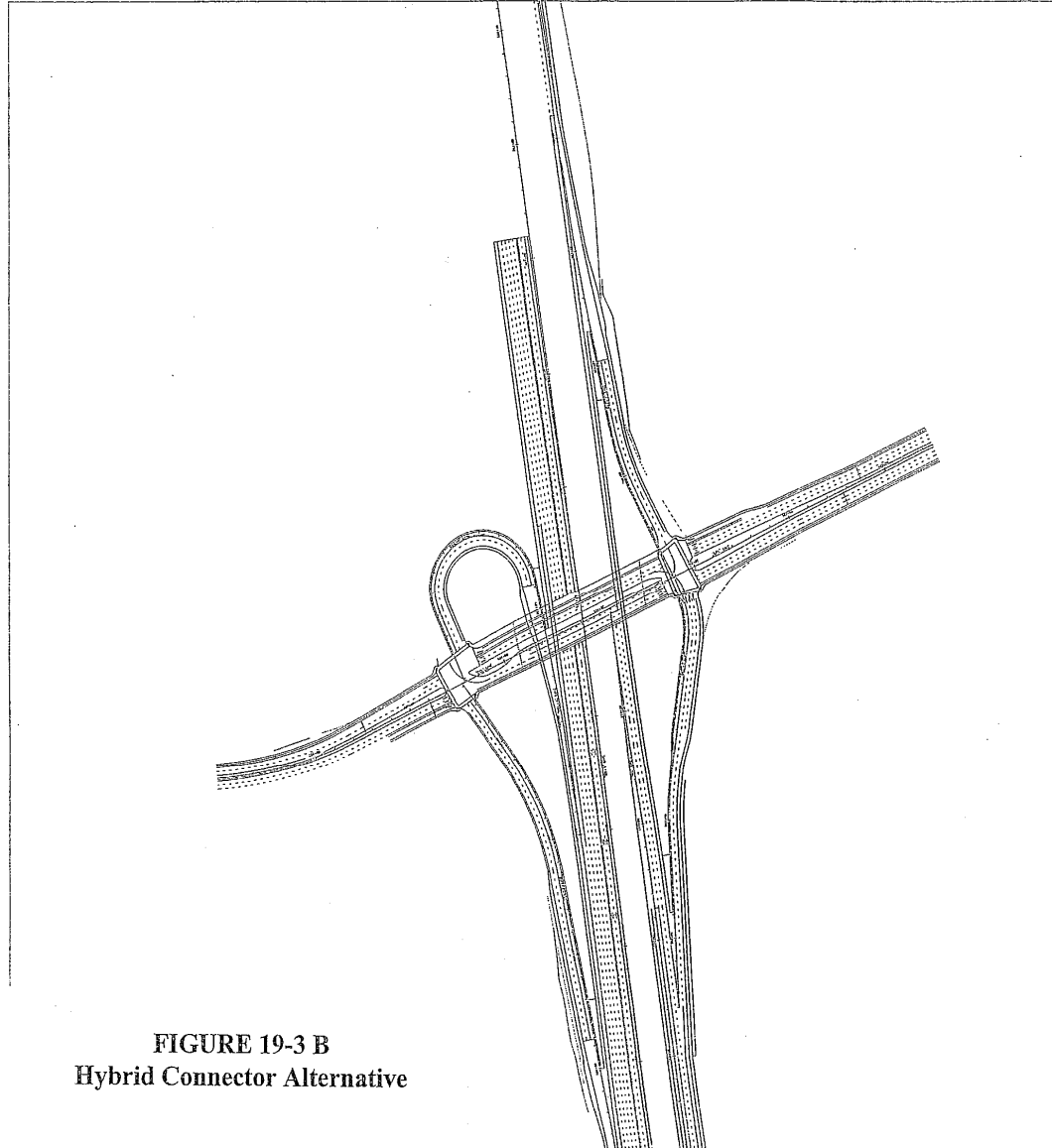


FIGURE 19-3 B
Hybrid Connector Alternative

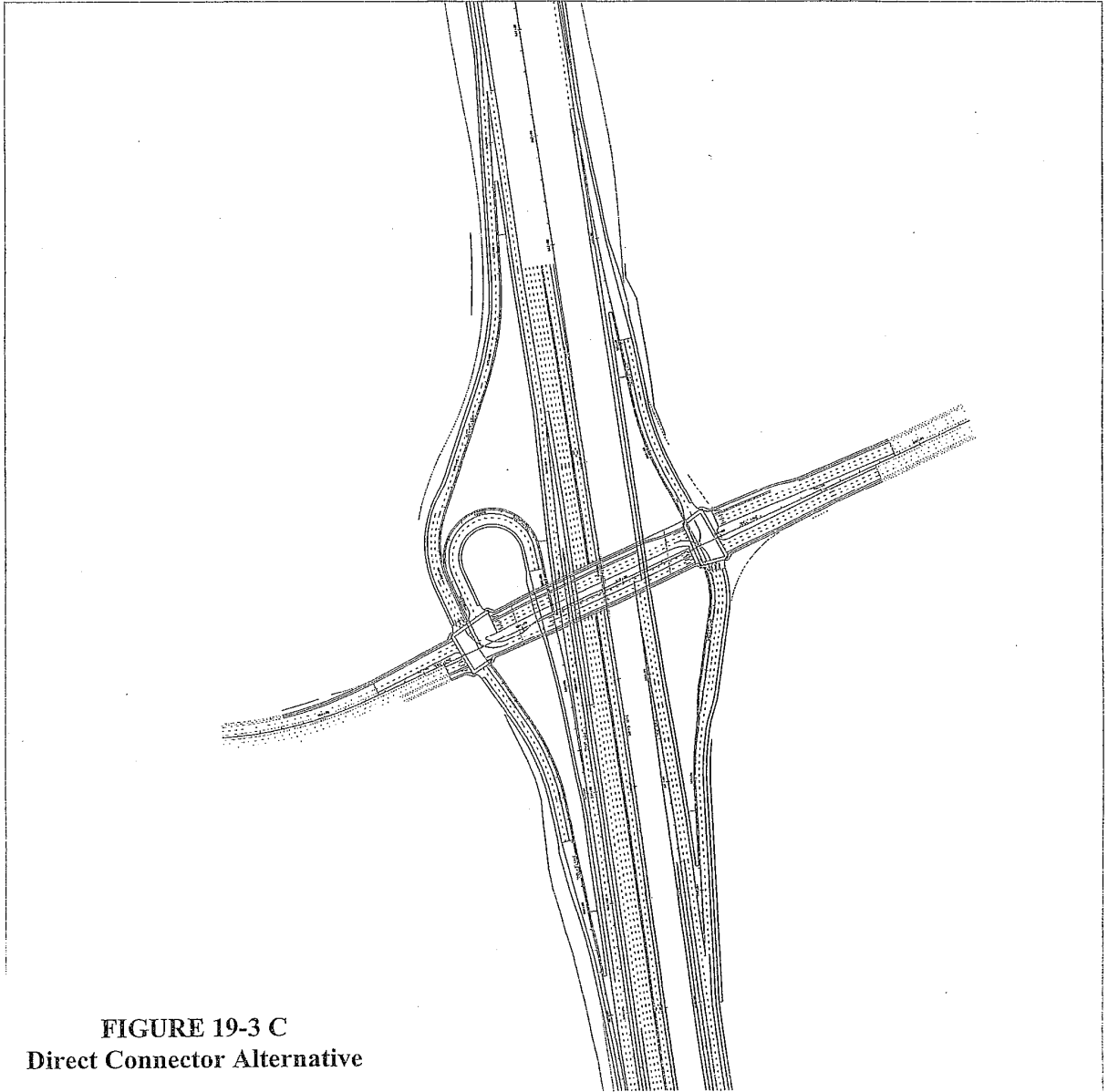


FIGURE 19-3 C
Direct Connector Alternative

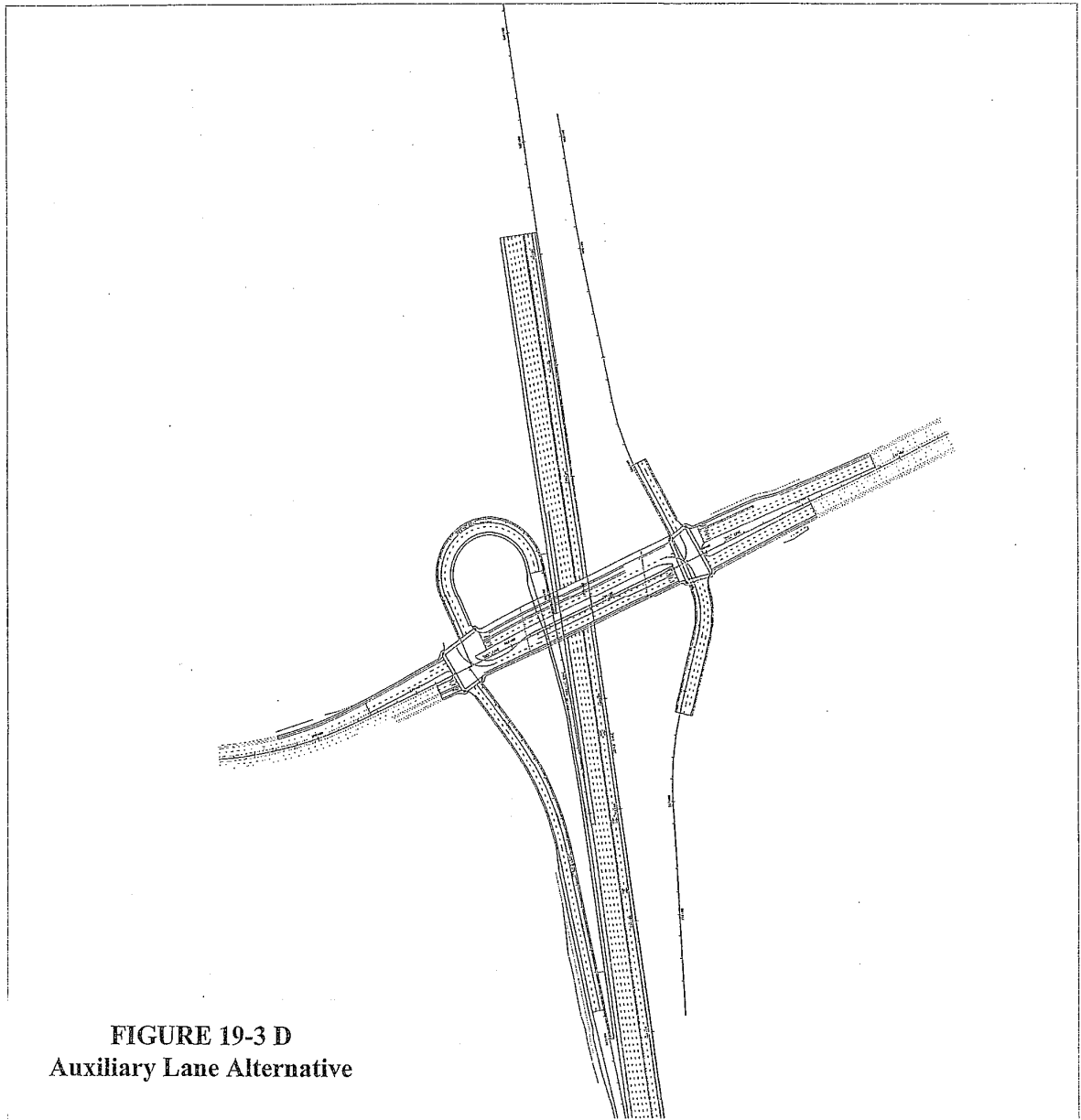


FIGURE 19-3 D
Auxiliary Lane Alternative

19.10.1 FAIR SHARE CONTRIBUTIONS / IMPLEMENTATION

Appendix T contains worksheets which determine the fair share percentage that would normally be required by a project to contribute towards a cumulative impact at a freeway interchange. For mitigation, the project proposes the following:

1. I-5 Southbound loop ramp fair share contribution, Cost \$350,000; 34.8%; Contribution: \$121,800.
2. Northbound off ramp, Northbound on ramp, median and High Bluff intersection improvements \$1,000,000.
3. SR-56 Eastbound On-Ramp at El Camino Real fair share contribution, Cost: \$305,100; 3.5%; Contribution: \$10,700.

It is proposed that a Traffic Mitigation Agreement between Caltrans and Kilroy Realty, see **Appendix U**, serve as the basis for either construction of the improvements or contribution towards the improvements as determined by CALTRANS. More specifically, it is proposed that the Del Mar Heights Road median and right turn lane improvements be constructed by the applicant under the CALTRANS permit process and that a financial contribution be made towards the remaining improvements.

19.10.2 EAST TO NORTHBOUND LOOP ON RAMP CONCEPT

Another strategy for improving the I-5 Del Mar Heights Road interchange and mitigating the project's cumulative impacts was identified. **Figure 19-4** illustrates the concept. By providing an east to north

bound loop on ramp the northbound ramp signalized intersection operation can be significantly improved. The improvement results from the removal of east to northbound on left turns which with the loop would have a free movement. Because of the main lane widening, which has or might occur as the result of the I-5 North Coast Corridor study, and because of the uncertainty of retaining the existing bridge as the result of the I-5 / SR-56 connector studies now underway, the loop on ramp is considered infeasible. As illustrated on **Figure 19-4**, the loop radius does not meet Caltrans standards, and is significantly smaller than the existing west to southbound loop. Caltrans and FHWA are unlikely to approve such a design.

19.10.3 DEL MAR HEIGHTS ROAD / HIGH BLUFF DRIVE TRIPLE LEFT – RECEIVING LANES

Figure 19-5 shows the intersection of Del Mar Heights Road at High Bluff Drive with the proposed northbound triple left configuration. As illustrated, the two inside receiving lanes are 12 feet wide and the outside left turn lane is 14 feet wide with a 5 foot bike lane. The proposed widening is all within the existing right of way on Del Mar Heights Road.



FIGURE 19-4

Eastbound to Northbound Loop On Ramp Concept

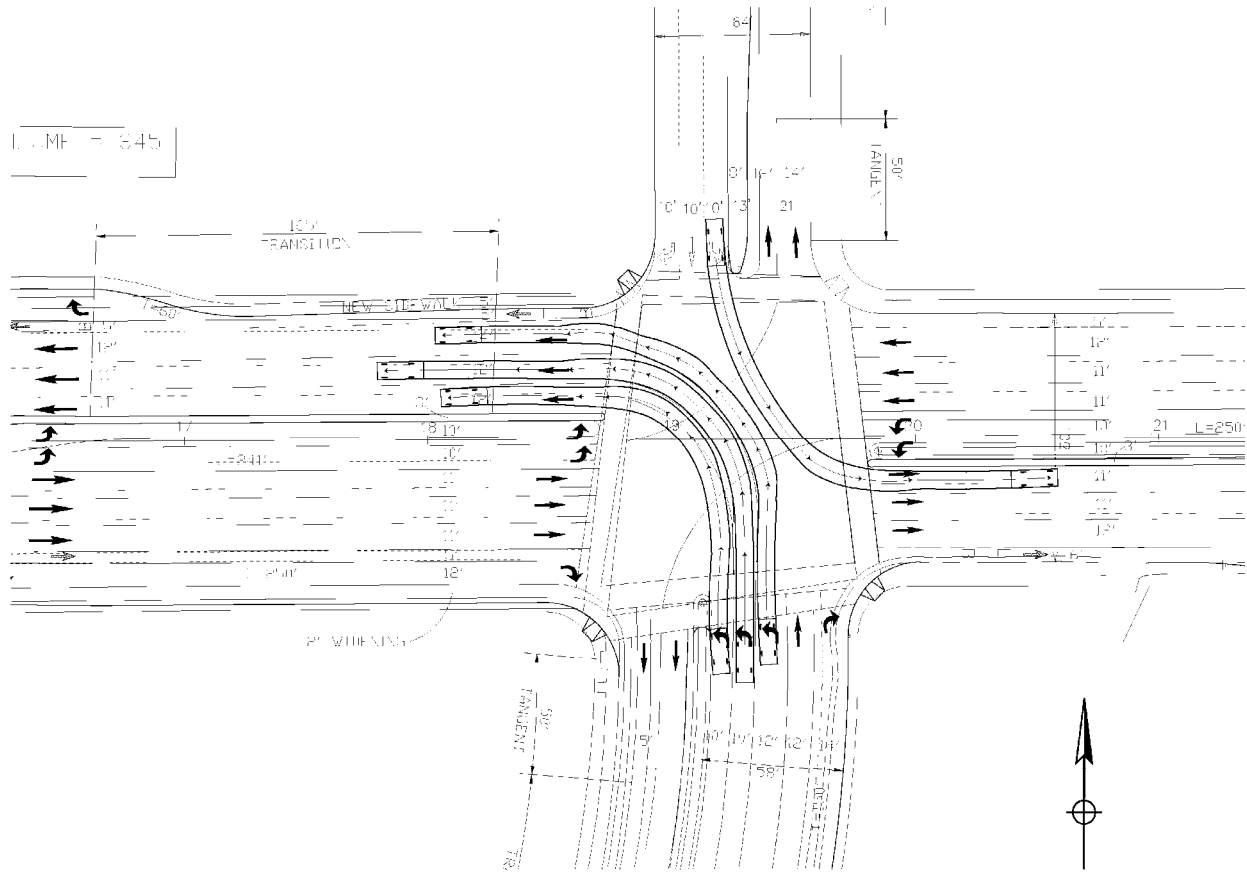


FIGURE 19-5

Del Mar Heights Road / High Bluff Drive Triple Left Conceptual Layout

20.0 REFERENCES

San Diego Region Traffic Engineer's Council (SANTEC) and Institute of Transportation Engineers (ITE),
California Border Section, Guidelines for Congestion Management Program (CMP),
Traffic Impact Report, 2008 San Diego, CA

City of San Diego, Development Services Department, Traffic Impact Study Manual
July 1998, San Diego, CA

City of San Diego, Development Services Department, San Diego Municipal Code, Land Development
Code, Trip Generation Manual, May 2003, San Diego, CA

City of San Diego, Development Services Department, California Environmental Quality Act, Significant
Determination Thresholds, January 2011, San Diego, CA

San Diego Association of Governments, 2006 Congestion Management Program Update, Appendix D,
July 2006, San Diego, CA

21.0 URBAN SYSTEMS ASSOCIATES, INC. PREPARERS

Principal Engineer

Andrew P. Schlaefli; M.S. Civil Engineering, B.S. Civil Engineering
Registered Civil Engineer, Licensed Traffic Engineer

Senior Project Manager

Justin P. Schlaefli; M.S. Civil Engineering, B.S. Civil Engineering
Registered Civil Engineer, Licensed Traffic Engineer

Project Manager

Jacob D. Swim; B.S. Civil Engineering

Senior Technical Support, Graphics and Illustrations

Jacob D. Swim

Word Processing, Report Production and Compilation

Lisa Diaz

This report is site and time specific and is intended for a one-time use for this intended project under the conditions described as "Proposed Project". Any changes or delay in implementation may require re-analysis and re-consideration by the public agency granting approvals. California land development planning involves subjective political considerations as well as frequently re-interpreted principals of law as well as changes in regulations, policies, guidelines and procedures. Urban Systems and their professionals make no warrant, either express or implied, regarding our findings, recommendations, or professional advice as to the ability to successfully accomplish this land development project.

Traffic is a consequence of human behavior and as such is predictable only in a gross cumulative methodology of user opportunities, using accepted standards and following patterns of past behavior and physical constraints attempting to project into a future window of circumstances. Any counts or existing conditions cited are only as reliable as to the time and conditions under which they were recorded. As such the preparer of this analysis is unable to warrant, either express or implied, that any forecasts are statements of actual true conditions which will in fact exist at any future date.

Services performed by Urban Systems professionals resulting in this document are of a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation expressed or implied and no warranty or guarantee is included or intended in this report, document opinion or otherwise.

Any changes by others to this analysis or re-use of document at a later point in time or other location, without the express consent and concurrence of Urban Systems releases and relieves Urban Systems of any liability, responsibility or duty for subsequent questions, claims, or damages.