

**SOUTH ORANGE COUNTY TRANSPORTATION
INFRASTRUCTURE IMPROVEMENT PROJECT
TRAFFIC AND CIRCULATION TECHNICAL REPORT**

Prepared for:

**Foothill/Eastern Transportation Corridor Agency
125 Pacifica
Irvine, CA 92618-3406**

Contact: Macie Cleary-Milan, Deputy Director, Environmental and Planning

Prepared by:

**Austin-Foust Associates, Inc.
2020 North Tustin Avenue
Santa Ana, CA 92705
Contact: Terence W. Austin, P.E.**

December 2003

PREFACE

The alternatives considered for the South Orange County Transportation Infrastructure Improvement Project (SOCTIIP) are described in detail in the following technical report:

Project Alternatives Technical Report (P&D Consultants, 2003).

The alternatives include a number of build alternatives including extensions to the existing Foothill Transportation Corridor, improvements to Interstate 5 and arterial highway improvements.

Individual technical reports were prepared to assess the potential environmental impacts of the SOCTIIP alternatives. Each of the following reports describes the study area for the individual parameter, existing conditions, study methodology, short and long term adverse and beneficial effects of the SOCTIIP alternatives, and appropriate mitigation measures.

Air Quality Technical Report (Mestre Greve Associates, 2003).

Geotechnical, Geology and Soils Technical Report (GeoPentech, 2003).

Hazardous Materials and Wastes Technical Report (Initial Site Assessment) (P&D Consultants, 2003).

Phase I Historical Resource Inventory Report (Greenwood and Associates, 2003).

Hydrology Technical Report (Psomas, 2003).

Land Use Technical Report (P&D Consultants, 2003).

Location Hydraulic Studies (Psomas, 2003).

Military Impacts Technical Report (P&D Consultants, 2003).

Natural Environment Study (P&D Consultants, 2003).

Noise Assessment (Mestre Greve Associates, 2003).

Paleontological Resources Technical Report (SWCA, 2003).

Phase I Archeological Inventory (Greenwood and Associates, 2003).

Public Services and Utilities Technical Report (P&D Consultants, 2003).

Recreation Resources Technical Report (P&D Consultants, 2003).

Relocation Impacts Technical Report (P&D Consultants, 2003).

Runoff Management Plan (Psomas, 2003).

Socioeconomics and Growth Inducing Impacts Technical Report (P&D Consultants, 2003).

Traffic and Circulation Technical Report (Austin Foust Associates, 2003).

Visual Impact Assessment Technical Report (P&D Consultants, 2003).

These technical reports are available for review at the Transportation Corridor Agencies office.

This Technical Report identifies and evaluates the potential environmental impacts of a wide range of build and no action alternatives considered for the SOCTIIP. Based on the findings of the analysis of the potential effects of these alternatives as documented in the technical reports, the SOCTIIP Collaborative evaluated each alternative and made a decision whether to advance an alternative for detailed evaluation in the EIS/SEIR or to eliminate that alternative from detailed consideration in the EIS/SEIR. Table P-1 lists the SOCTIIP alternatives described in this Technical Report and identifies which were advanced for detailed evaluation in the EIS/SEIR and which were eliminated from further consideration in the EIS/SEIR. The detailed explanation for why each alternative was eliminated is provided in the EIS/SEIR.

During the preparation of the technical studies for the SOCTIIP, the name of the Rancho Mission Viejo (RMV) Land Conservancy was changed to the Donna O'Neill Land Conservancy. All references to the RMV Land Conservancy or the RMV Conservancy in this Technical Report should be interpreted to refer to the Donna O'Neill Land Conservancy.

TABLE P-1
SOCTIP ALTERNATIVES ADVANCED TO THE EIS/SEIR OR ELIMINATED
FROM DETAILED EVALUATION IN THE EIS/SEIR

TOLL ROAD CORRIDOR ALTERNATIVES	
FAR EAST CORRIDOR ALIGNMENT ALTERNATIVES	Alternative Advanced or Eliminated (1)
Far East Corridor - Complete - Initial Alternative	Eliminated.
Far East Corridor - Complete - Ultimate Alternative	Eliminated.
Far East Corridor - Talega Variation - Initial Alternative	Eliminated
Far East Corridor - Talega Variation - Ultimate Alternative	Eliminated
Far East Corridor - Cristianitos Variation - Initial Alternative	Eliminated.
Far East Corridor - Cristianitos Variation - Ultimate Alternative	Eliminated.
Far East Corridor - Agricultural Fields Variation - Initial Alternative	Eliminated.
Far East Corridor - Agricultural Fields Variation - Ultimate Alternative	Eliminated.
Far East Corridor - Ortega Highway Variation - Initial Alternative	Eliminated.
Far East Corridor - Ortega Highway Variation - Ultimate Alternative	Eliminated.
Far East Corridor - Avenida Pico Variation - Initial Alternative	Eliminated.
Far East Corridor - Avenida Pico Variation - Ultimate Alternative	Eliminated.
Far East Corridor - West - Initial Alternative	Advanced.
Far East Corridor - West - Ultimate Alternative	Advanced.
Far East Corridor - Modified - Initial Alternative	Advanced.
Far East Corridor - Modified - Ultimate Alternative	Advanced.
CENTRAL CORRIDOR ALIGNMENT ALTERNATIVES	Alternative Advanced or Eliminated (1)
Central Corridor - Complete - Initial Alternative	Advanced.
Central Corridor - Complete - Ultimate Alternative	Advanced.
Central Corridor - Avenida La Pata Variation - Initial Alternative	Advanced.
Central Corridor - Avenida La Pata Variation - Ultimate Alternative	Advanced.
Central Corridor - Ortega Highway Variation - Initial Alternative	Eliminated.
Central Corridor - Ortega Highway Variation - Ultimate Alternative	Eliminated.
ALIGNMENT 7 CORRIDOR ALIGNMENT ALTERNATIVES	Alternative Advanced or Eliminated (1)
Alignment 7 Corridor - Complete - Initial Alternative	Eliminated.
Alignment 7 Corridor - Complete - Ultimate Alternative	Eliminated.
Alignment 7 Corridor - 7 Swing Variation - Initial Alternative	Eliminated.
Alignment 7 Corridor - 7 Swing Variation - Ultimate Alternative	Eliminated.
Alignment 7 Corridor - Far East Crossover Variation - Initial Alternative	Eliminated.
Alignment 7 Corridor - Far East Crossover Variation - Ultimate Alternative	Eliminated.
Alignment 7 Corridor - Far East Crossover (Cristianitos) Variation - Initial Alternative	Eliminated.
Alignment 7 Corridor - Far East Crossover (Cristianitos) Variation - Ultimate Alternative	Eliminated.
Alignment 7 Corridor - Far East Crossover (Agricultural Fields) Variation - Initial Alternative	Eliminated.
Alignment 7 Corridor - Far East Crossover (Agricultural Fields) Variation - Ultimate Alternative	Eliminated.

**TABLE P-1
SOCTIIP ALTERNATIVES ADVANCED TO THE EIS/SEIR OR ELIMINATED
FROM DETAILED EVALUATION IN THE EIS/SEIR**

TOLL ROAD CORRIDOR ALTERNATIVES	
Alignment 7 Corridor - Ortega Highway Variation - Initial Alternative	Eliminated.
Alignment 7 Corridor - Ortega Highway Variation - Ultimate Alternative	Eliminated.
Alignment 7 Corridor - Avenida La Pata Variation - Initial Alternative	Advanced.
Alignment 7 Corridor - Avenida La Pata Variation - Ultimate Alternative	Advanced.
Alignment 7 Corridor - Far East Corridor - West - Initial Alternative	Advanced.
Alignment 7 Corridor - Far East Corridor - West - Ultimate Alternative	Advanced.
NON-TOLL ROAD ALTERNATIVES	
ARTERIAL IMPROVEMENTS ALTERNATIVES	
Arterial Improvements Only - Alternative	Advanced.
Arterial Improvements Only Plus HOV and Spot Mixed-Flow Lanes on I-5 Alternative	Eliminated.
I-5 ALTERNATIVE	
I-5 Widening Alternative	Advanced.
NO ACTION ALTERNATIVES	
No Action Alternative - Orange County Projections 2000	Advanced.
No Action Alternative - Rancho Mission Viejo (RMV) Development Plan	Advanced.

(1) Advanced: Alternative was advanced for detailed evaluation in the EIS/SEIR.
 Eliminated: Alternative was eliminated from detailed evaluation in the EIS/SEIR and is discussed in the EIS/SEIR as an alternative “considered and eliminated.”

TABLE OF CONTENTS (cont)

GLOSSARY OF ACRONYMS G-1

G.1 Acronyms for the Build Alternatives..... G-1

G.2 Other Acronyms..... G-2

G.3 Measurements G-5

1.0 INTRODUCTION..... 1-1

1.1 Background..... 1-1

1.2 Overview of the Traffic Analysis 1-2

1.3 Overview of the SOCTIIP Alternatives..... 1-3

 1.3.1 Selection of a Preferred Alternative 1-3

 1.3.2 I-5 and Arterial Alternatives 1-4

1.4 Traffic Analysis Approach and Methodology 1-5

 1.4.1 Study Area..... 1-5

 1.4.2 Traffic Forecasting Methodology..... 1-7

 1.4.3 Land Use Assumptions..... 1-10

 1.4.4 Highway Network Assumptions 1-11

 1.4.5 Initial and Ultimate Corridor Alternatives 1-12

 1.4.6 Toll Versus Toll-Free Conditions 1-13

1.5 Performance Criteria and Standards 1-13

 1.5.1 Impact Criteria..... 1-13

 1.5.1.1 Impact Criteria for Freeway/Tollway Mainline Segments 1-17

 1.5.1.2 Impact Criteria for Arterial Roads..... 1-18

 1.5.1.3 Impact Criteria for Freeway/Tollway Ramps 1-20

 1.5.2 Measures of Effectiveness..... 1-20

 1.5.2.1 VMT and VHT Statistics 1-20

 1.5.2.2 Congestion Statistics..... 1-25

 1.5.2.3 Travel Time Statistics 1-26

2.0 DESCRIPTION OF THE ALTERNATIVES 2-1

2.1 Description of the Alternatives 2-1

 2.1.1 No Action Alternative 2-1

 2.1.2 Far East Corridor Alternatives 2-1

 2.1.2.1 Far East Corridor-Complete-Initial and Ultimate Alternatives 2-1

 2.1.2.2 Far East Corridor-Modified-Initial and Ultimate Alternatives..... 2-2

 2.1.2.3 Far East Corridor-West-Initial and Ultimate Alternatives..... 2-2

 2.1.2.4 Far East Corridor-Talega Variation-Initial and Ultimate Alternatives..... 2-4

 2.1.2.5 Far East Corridor-Cristianitos Variation-Initial and Ultimate Alternatives..... 2-4

 2.1.2.6 Far East Corridor-Agricultural Fields Variation-Initial and Ultimate Alternatives..... 2-4

TABLE OF CONTENTS (cont)

2.0 DESCRIPTION OF THE ALTERNATIVES (cont).....

- 2.1.2.7 Far East Corridor-Ortega Highway Variation-Initial and Ultimate Alternatives..... 2-7
- 2.1.2.8 Far East Corridor-Avenida Pico Variation-Initial and Ultimate Alternatives..... 2-7
- 2.1.3 Central Corridor Alternatives..... 2-7
 - 2.1.3.1 Central Corridor-Complete-Initial and Ultimate Alternatives..... 2-7
 - 2.1.3.2 Central Corridor-Avenida La Pata Variation-Initial and Ultimate Alternatives..... 2-11
 - 2.1.3.3 Central Corridor-Ortega Highway Variation-Initial and Ultimate Alternatives..... 2-11
- 2.1.4 Alignment 7 Corridor Alternatives 2-11
 - 2.1.4.1 Alignment 7 Corridor-Complete-Initial and Ultimate Alternatives..... 2-14
 - 2.1.4.2 Alignment 7 Corridor-7 Swing Variation-Initial and Ultimate Alternatives..... 2-14
 - 2.1.4.3 Alignment 7 Corridor-Far East Crossover Variation-Initial and Ultimate Alternatives..... 2-16
 - 2.1.4.4 Alignment 7 Corridor-Far East Crossover-Modified-Initial and Ultimate Alternatives..... 2-16
 - 2.1.4.5 Alignment 7 Corridor-Far East Crossover (Cristianitos) Variation-Initial and Ultimate Alternatives..... 2-16
 - 2.1.4.6 Alignment 7 Corridor-Far East Crossover (Agricultural Fields) Variation-Initial and Ultimate Alternatives..... 2-16
 - 2.1.4.7 Alignment 7 Corridor-Ortega Highway Variation-Initial and Ultimate Alternatives..... 2-19
 - 2.1.4.8 Alignment 7 Corridor-Avenida La Pata Variation-Initial and Ultimate Alternatives..... 2-19
- 2.1.5 Arterial and I-5 Improvement Alternatives..... 2-19
 - 2.1.5.1 Arterial Improvements Only Alternative..... 2-19
 - 2.1.5.2 Arterial Improvements Plus HOV and Mixed-Flow Lanes on I-5 Alternative..... 2-23
 - 2.1.5.3 I-5 Widening Alternative..... 2-23
- 2.2 Analysis Scenarios..... 2-23
 - 2.2.1 No Action Alternative Analysis Scenarios..... 2-30
 - 2.2.2 Build Alternative Analysis Scenarios 2-30
 - 2.2.3 Toll-Free Analysis Scenarios 2-32

3.0 TRANSPORTATION SETTING..... **3-1**

- 3.1 Existing Circulation System 3-1
- 3.2 Existing Traffic Conditions..... 3-1

TABLE OF CONTENTS (cont)

3.0 TRANSPORTATION SETTING (cont)..... 3-4

3.3 Existing and Future Land Use..... 3-4

3.3.1 Future Rancho Mission Viejo Land Use..... 3-7

3.4 Future Circulation System 3-10

3.4.1 Future Rancho Mission Viejo Circulation System..... 3-13

3.5 Future Traffic Demand and Travel Patterns 3-22

3.5.1 Orange County Traffic Demand..... 3-24

3.5.2 Future Rancho Mission Viejo Traffic Demand..... 3-24

3.5.3 Future I-5 Traffic Demand 3-28

3.5.4 Future I-5 Travel Patterns 3-29

4.0 LONG-RANGE ANALYSIS..... 4-1

4.1 Introduction..... 4-1

4.2 Long-Range Traffic Conditions..... 4-1

4.2.1 Definition of Beneficial Effects and Adverse Impacts..... 4-1

4.2.2 ADT Traffic Forecasts 4-3

4.2.3 Peak Hour Traffic Conditions 4-9

4.2.3.1 No Action Alternative..... 4-10

4.2.3.2 FEC-Initial and Ultimate Alternatives..... 4-15

4.2.3.3 FEC-M-Initial and Ultimate Alternatives..... 4-19

4.2.3.4 FEC-W-Initial and Ultimate Alternatives..... 4-19

4.2.3.5 FEC-TV-Initial and Ultimate Alternatives 4-19

4.2.3.6 FEC-CV-Initial and Ultimate Alternatives..... 4-28

4.2.3.7 FEC-AFV-Initial and Ultimate Alternatives 4-32

4.2.3.8 FEC-OHV-Initial and Ultimate Alternatives..... 4-32

4.2.3.9 FEC-APV-Initial and Ultimate Alternatives 4-37

4.2.3.10 CC-Initial and Ultimate Alternatives..... 4-46

4.2.3.11 CC-ALPV-Initial and Ultimate Alternatives..... 4-55

4.2.3.12 CC-OHV-Initial and Ultimate Alternatives..... 4-58

4.2.3.13 A7C-Initial and Ultimate Alternatives..... 4-64

4.2.3.14 A7C-7SV-Initial and Ultimate Alternatives 4-74

4.2.3.15 A7C-FECV-Initial and Ultimate Alternatives 4-74

4.2.3.16 A7C-FEC-M-Initial and Ultimate Alternatives 4-81

4.2.3.17 A7C-FECV-C-Initial and Ultimate Alternatives 4-81

4.2.3.18 A7C-FECV-AF-Initial and Ultimate Alternatives..... 4-84

4.2.3.19 A7C-OHV-Initial and Ultimate Alternatives..... 4-84

4.2.3.20 A7C-ALPV-Initial and Ultimate Alternatives..... 4-84

4.2.3.21 AIO Alternative 4-87

4.2.3.22 AIP Alternative..... 4-92

4.2.3.23 I-5 Alternative..... 4-102

TABLE OF CONTENTS (cont)

4.0 LONG-RANGE ANALYSIS (cont)..... 4-106

4.3 Long-Range Measures of Effectiveness 4-106

4.3.1 Systemwide VMT and VHT Statistics 4-106

4.3.2 I-5 Congestion in the Study Area 4-116

4.3.3 Arterial Congestion in the Study Area 4-121

4.3.4 Point to Point Travel Time Statistics..... 4-124

5.0 MITIGATION MEASURES..... 5-1

5.1 Introduction..... 5-1

5.2 Mitigation Measures for Indirect Adverse Impacts 5-1

5.3 Mitigation Measures for Direct Adverse Impacts..... 5-2

5.3.1 FEC-Initial and Ultimate Alternatives 5-2

5.3.2 FEC-M-Initial and Ultimate Alternatives 5-2

5.3.3 FEC-W-Initial and Ultimate Alternatives 5-2

5.3.4 FEC-TV-Initial and Ultimate Alternatives..... 5-2

5.3.5 FEC-CV-Initial and Ultimate Alternatives 5-4

5.3.6 FEC-AFV-Initial and Ultimate Alternatives 5-4

5.3.7 FEC-OHV-Initial and Ultimate Alternatives 5-4

5.3.8 FEC-APV-Initial and Ultimate Alternatives 5-4

5.3.9 CC-Initial and Ultimate Alternatives 5-4

5.3.10 CC-ALPV-Initial and Ultimate Alternatives..... 5-8

5.3.11 CC-OHV-Initial and Ultimate Alternatives 5-8

5.3.12 A7C-Initial and Ultimate Alternatives 5-8

5.3.13 A7C-7SV-Initial and Ultimate Alternatives..... 5-12

5.3.14 A7C-FECV-Initial and Ultimate Alternatives..... 5-12

5.3.15 A7C-FEC-M-Initial and Ultimate Alternatives..... 5-12

5.3.16 A7C-FECV-C-Initial and Ultimate Alternatives..... 5-12

5.3.17 A7C-FECV-AF-Initial and Ultimate Alternatives 5-12

5.3.18 A7C-OHV-Initial and Ultimate Alternatives 5-12

5.3.19 A7C-ALPV-Initial and Ultimate Alternatives 5-13

5.3.20 AIO Alternative..... 5-13

5.3.21 AIP Alternative 5-17

5.3.22 I-5 Alternative 5-22

6.0 CEQA SIGNIFICANCE 6-1

6.1 CEQA Thresholds of Significance..... 6-1

6.2 Summary of Significant Adverse Impacts 6-1

6.3 Summary of Significant Adverse Impacts After Mitigation..... 6-2

7.0 SPECIAL ISSUES 7-1

7.1 No Action Alternative Special Analysis Scenarios 7-1

7.2 Toll-Free Special Analysis Scenarios 7-6

TABLE OF CONTENTS (cont)

7.0	SPECIAL ISSUES (cont)	
7.3	FTC-S/I-5 Confluence	7-11
	7.3.1 Far East Alignment Confluence	7-11
	7.3.2 Central Alignment Confluence.....	7-14
7.4	Weekend Traffic Assessment	7-16
	7.4.1 Background	7-16
	7.4.2 Existing Freeway and Toll Road Traffic Patterns.....	7-19
	7.4.3 Implications for SOCTIIP Roadways	7-22
7.5	Geographic Composition of FTC-S Traffic.....	7-23
8.0	LIST OF REFERENCES	8-1
9.0	LIST OF PREPARERS	9-1

TABLE OF CONTENTS (cont)

The appendices for this technical report are bound separately and are available for review at the TCA as follows:

Appendices Volume 1: Appendices A to F

Appendices Volume 2: Appendix G (Part 1)

Appendices Volume 3: Appendix G (Part 2)

Appendix A	Study Area Demographic Projections and Cumulative Projects
Appendix B	Regionwide VMT/VHT Summaries
Appendix C	ADT Illustrations
Appendix D	Freeway/Tollway Mainline Peak Hour LOS and I-5 Congestion Summaries
Appendix E	Freeway/Tollway Ramp Peak Hour LOS Summaries
Appendix F	Intersection Lane Configuration, Peak Hour ICU and Intersection Delay Summaries
Appendix G	Peak Hour ICU Worksheets

LIST OF FIGURES

ES-1 SOCTIIP Traffic Analysis Study AreaES-4

ES-2 Existing Weekday Peak Hour Traffic ConditionsES-17

ES-3 2025 Weekday Peak Hour Traffic Conditions – No Action Alternative (Buildout
Circulation System with Proposed RMV Plan)ES-25

ES-4 2025 Weekday Peak Hour Traffic Conditions – FEC, FEC-M, FEC-W and
FEC-AFV Initial and Ultimate Alternatives (Buildout Circulation System with
Proposed RMV Plan)ES-27

ES-5 2025 Weekday Peak Hour Traffic Conditions – FEC-TV Initial and Ultimate
Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-28

ES-6 2025 Weekday Peak Hour Traffic Conditions – FEC-CV Initial and Ultimate
Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-29

ES-7 2025 Weekday Peak Hour Traffic Conditions – FEC-OHV Initial and Ultimate
Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-30

ES-8 2025 Weekday Peak Hour Traffic Conditions – FEC-APV Initial and Ultimate
Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-31

ES-9 2025 Weekday Peak Hour Traffic Conditions – CC Initial and Ultimate
Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-32

ES-10 2025 Weekday Peak Hour Traffic Conditions – CC-ALPV Initial and Ultimate
Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-33

ES-11 2025 Weekday Peak Hour Traffic Conditions – CC-OHV Initial and Ultimate
Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-34

ES-12 2025 Weekday Peak Hour Traffic Conditions – A7C and A7C-7SV Initial and
Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-35

ES-13 2025 Weekday Peak Hour Traffic Conditions – A7C-FECV, A7C-FEC-M and
A7C-FECV-AF Initial and Ultimate Alternatives (Buildout Circulation System
with Proposed RMV Plan)ES-36

ES-14 2025 Weekday Peak Hour Traffic Conditions – A7C-FECV-C Initial and
Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-37

ES-15 2025 Weekday Peak Hour Traffic Conditions – A7C-OHV Initial and Ultimate
Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-38

ES-16 2025 Weekday Peak Hour Traffic Conditions – A7C-ALPV Initial and Ultimate
Alternatives (Buildout Circulation System with Proposed RMV Plan)ES-39

ES-17 2025 Weekday Peak Hour Traffic Conditions – AIO Alternative (Buildout
Circulation System with Proposed RMV Plan)ES-40

ES-18 2025 Weekday Peak Hour Traffic Conditions – AIP Alternative (Buildout
Circulation System with Proposed RMV Plan)ES-41

ES-19 2025 Weekday Peak Hour Traffic Conditions – I-5 Alternative (Buildout
Circulation System with Proposed RMV Plan)ES-42

ES-20 Summary of Build Alternative Systemwide Travel Time Savings.....ES-59

ES-21 Summary of I-5 Congestion in the SOCTIIP Study Area.....ES-63

ES-22 Summary of Arterial System Congestion in the SOCTIIP Study Area.....ES-67

LIST OF FIGURES (cont)

1-1	SOCTIIP Traffic Analysis Study Area	1-6
2-1	Far East Corridor – Complete – Initial and Ultimate Alternatives	2-3
2-2	Far East Corridor – Talega Variation – Initial and Ultimate Alternatives.....	2-5
2-3	Far East Corridor – Cristianitos Variation – Initial and Ultimate Alternatives	2-6
2-4	Far East Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives	2-8
2-5	Far East Corridor – Avenida Pico Variation – Initial and Ultimate Alternatives.....	2-9
2-6	Central Corridor – Complete – Initial and Ultimate Alternatives.....	2-10
2-7	Central Corridor – Avenida La Pata Variation – Initial and Ultimate Alternatives	2-12
2-8	Central Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives	2-13
2-9	Alignment 7 Corridor – Complete – Initial and Ultimate Alternatives	2-15
2-10	Alignment 7 Corridor – Far East Crossover Variation – Initial and Ultimate Alternatives	2-17
2-11	Alignment 7 Corridor – Far East Crossover (Cristianitos) Variation – Initial and Ultimate Alternatives	2-18
2-12	Alignment 7 Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives.....	2-20
2-13	Alignment 7 Corridor – Avenida La Pata Variation – Initial and Ultimate Alternatives.....	2-21
2-14	Arterial Improvements Only Alternative	2-22
2-15	Arterial Improvements Plus HOV and Mixed-Flow Lanes on I-5 Alternative	2-24
2-16	I-5 Widening Alternative	2-27
3-1	Existing Circulation System	3-2
3-2	Existing Peak Hour Deficiencies	3-5
3-3	Orange County Demographic Data Summary Areas.....	3-6
3-4	OCTAM 3.1 Zones in the Rancho Mission Viejo Area.....	3-11
3-5	Committed Circulation System.....	3-14
3-6	MPAH/RTP Buildout Circulation System.....	3-17
3-7	2025 Circulation System in the Rancho Mission Viejo Area	3-21
3-8	2025 With-Corridor Circulation System With the Proposed RMV Plan.....	3-23
3-9	Existing and Future ADT Traffic Demand in Orange County	3-25
3-10	South Orange County CAA Map.....	3-26
3-11	Existing and Future I-5 Travel Patterns	3-30
4-1	2025 Peak Hour Deficiencies – No Action Alternative (Committed Circulation System with Proposed RMV Plan)	4-11
4-2	2025 Peak Hour Deficiencies – No Action Alternative (Committed Circulation System with OCP-2000 for RMV)	4-12
4-3	2025 Peak Hour Deficiencies – No Action Alternative (Buildout Circulation System with Proposed RMV Plan)	4-13

LIST OF FIGURES (cont)

4-4 2025 Peak Hour Deficiencies – No Action Alternative (Buildout Circulation System with OCP-2000 for RMV) 4-14

4-5 2025 Peak Hour Deficiencies – FEC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan) 4-16

4-6 2025 Peak Hour Deficiencies – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan) 4-17

4-7 2025 Peak Hour Deficiencies – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV) 4-18

4-8 2025 Peak Hour Deficiencies – FEC-TV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... 4-23

4-9 2025 Peak Hour Deficiencies – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... 4-24

4-10 2025 Peak Hour Deficiencies – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV) 4-25

4-11 2025 Peak Hour Deficiencies – FEC-CV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... 4-30

4-12 2025 Peak Hour Deficiencies – FEC-CV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... 4-31

4-13 2025 Peak Hour Deficiencies – FEC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... 4-35

4-14 2025 Peak Hour Deficiencies – FEC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... 4-36

4-15 2025 Peak Hour Deficiencies – FEC-APV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... 4-42

4-16 2025 Peak Hour Deficiencies – FEC-APV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... 4-43

4-17 2025 Peak Hour Deficiencies – CC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan) 4-48

4-18 2025 Peak Hour Deficiencies – CC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan) 4-49

4-19 2025 Peak Hour Deficiencies – CC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV) 4-50

4-20 2025 Peak Hour Deficiencies – CC-ALPV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... 4-56

4-21 2025 Peak Hour Deficiencies – CC-ALPV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... 4-57

4-22 2025 Peak Hour Deficiencies – CC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... 4-62

4-23 2025 Peak Hour Deficiencies – CC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... 4-63

LIST OF FIGURES (cont)

4-24	2025 Peak Hour Deficiencies – A7C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	4-69
4-25	2025 Peak Hour Deficiencies – A7C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	4-70
4-26	2025 Peak Hour Deficiencies – A7C-FECV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	4-75
4-27	2025 Peak Hour Deficiencies – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	4-76
4-28	2025 Peak Hour Deficiencies – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)	4-77
4-29	2025 Peak Hour Deficiencies – A7C-FECV-C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	4-82
4-30	2025 Peak Hour Deficiencies – A7C-FECV-C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	4-83
4-31	2025 Peak Hour Deficiencies – AIO Alternative (Buildout Circulation System with Proposed RMV Plan)	4-88
4-32	2025 Peak Hour Deficiencies – AIO Alternative (Buildout Circulation System with OCP-2000 for RMV)	4-89
4-33	2025 Peak Hour Deficiencies – AIP Alternative (Buildout Circulation System with Proposed RMV Plan)	4-95
4-34	2025 Peak Hour Deficiencies – AIP Alternative (Buildout Circulation System with OCP-2000 for RMV)	4-96
4-35	2025 Peak Hour Deficiencies – I-5 Alternative (Committed Circulation System with Proposed RMV Plan)	4-103
4-36	2025 Peak Hour Deficiencies – I-5 Alternative (Buildout Circulation System with Proposed RMV Plan)	4-104
4-37	2025 Peak Hour Deficiencies – I-5 Alternative (Buildout Circulation System with OCP-2000 for RMV)	4-105
4-38	Peak Period Freeway Congestion Relationships.....	4-117
4-39	Relationship Between Intersection LOS and Vehicle Delay	4-122
4-40	Intersection Locations Used to Calculate Vehicle Delay on the Arterial System in the SOCTIIP Study Area	4-123
4-41	Geographic Areas for Summarizing Point to Point Travel Time Statistics	4-128
7-1	2025 Peak Hour Deficiencies – No Action Alternative (Committed Circulation System with Existing General Plan for RMV)	7-2
7-2	2025 Peak Hour Deficiencies – No Action Alternative (Committed Circulation System with No Future Development in RMV)	7-3
7-3	2025 Peak Hour Deficiencies – FEC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	7-7

LIST OF FIGURES (cont)

7-4	2025 Peak Hour Deficiencies – CC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	7-8
7-5	2025 Peak Hour Deficiencies – A7C-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	7-9
7-6	FTC-S/I-5 Confluence Concepts.....	7-13
7-7	Geographic Areas for Summarizing the Composition of Traffic on the FTC-S.....	7-24
7-8	Geographic Composition of Year 2025 Traffic on the FTC-S	7-33

LIST OF TABLES

ES-1 Overview of the SOCTIIP Alternatives.....ES-7

ES-2 Existing and Future Land Use and Traffic Demand in Orange CountyES-9

ES-3 Land Use and Traffic Demand for RMV Development Scenarios.....ES-10

ES-4 LOS Performance Standards for the Study Area Circulation SystemES-15

ES-5 Summary of Existing and Future ADT Volumes on I-5 and FTC-SES-20

ES-6 Summary of Weekday Peak Hour Deficiencies Under the SOCTIIP Build
Alternatives with Existing Conditions as the BaselineES-44

ES-7 Summary of the Beneficial Effects of the SOCTIIP Build AlternativesES-51

ES-8 Summary of the Direct and Indirect Adverse Impacts of the SOCTIIP Build
AlternativesES-54

ES-9 Summary of Build Alternative Systemwide Travel Time Savings.....ES-57

ES-10 Summary of I-5 Congestion in the SOCTIIP Study Area.....ES-61

ES-11 Summary of Arterial System Congestion in the SOCTIIP Study AreaES-65

ES-12 Summary of Build Alternative Point to Point Travel Time SavingsES-69

ES-13 Summary of Direct Adverse Impacts and Mitigation Measures.....ES-73

ES-14 Summary of Direct Adverse Impacts that Remain Significant Under CEQA
After MitigationES-81

1-1 Level of Service Descriptions..... 1-14

1-2 Volume/Capacity Ratio Level of Service Ranges 1-16

1-3 Freeway/Tollway Mainline Performance Criteria 1-19

1-4 Arterial Intersection Performance Criteria..... 1-21

1-5 Freeway/Tollway Ramp Performance Criteria 1-22

1-6 Measures of Effectiveness 1-24

2-1 Summary of I-5 Improvements in the AIP and I-5 Alternatives 2-25

2-2 Summary of Traffic Analysis Scenarios and Assumptions 2-28

3-1 Existing and Future Demographic Data for Orange County 3-8

3-2 2025 Demographic Data for the Rancho Mission Viejo Scenarios 3-12

3-3 Committed Circulation System Improvements..... 3-15

3-4 Non-Committed MPAH/RTP Circulation System Improvements 3-18

3-5 Existing and Future ADT Traffic Demand in Orange County 3-27

3-6 2025 ADT Traffic Demand for the Rancho Mission Viejo Development Scenarios 3-24

3-7 Existing and Future I-5 Travel Patterns 3-31

4-1 Summary of Existing and Future ADT Volumes on I-5 and FTC-S 4-4

4-2 Summary of 2025 Deficiencies Under the No Action Alternative Scenarios 4-10

4-3 Summary of 2025 Deficiencies Under the FEC-Initial and Ultimate
Alternatives Scenarios 4-15

4-4 Summary of 2025 Beneficial Effects and Adverse Impacts Under the
FEC-Initial and Ultimate Alternatives Scenarios 4-20

LIST OF TABLES (cont)

4-5	Summary of 2025 Deficiencies Under the FEC-TV-Initial and Ultimate Alternatives Scenarios	4-22
4-6	Summary of 2025 Beneficial Effects and Adverse Impacts Under the FEC-TV-Initial and Ultimate Alternatives Scenarios.....	4-26
4-7	Summary of 2025 Traffic Share Percentages for the Direct Adverse Impacts of the FEC-TV-Initial and Ultimate Alternatives Scenarios.....	4-29
4-8	Summary of 2025 Deficiencies Under the FEC-CV-Initial and Ultimate Alternatives Scenarios	4-28
4-9	Summary of 2025 Beneficial Effects and Adverse Impacts Under the FEC-CV-Initial and Ultimate Alternatives Scenarios.....	4-33
4-10	Summary of 2025 Deficiencies Under the FEC-OHV-Initial and Ultimate Alternatives Scenarios	4-37
4-11	Summary of 2025 Beneficial Effects and Adverse Impacts Under the FEC-OHV-Initial and Ultimate Alternatives Scenarios	4-38
4-12	Summary of 2025 Traffic Share Percentages for the Direct Adverse Impacts of the FEC-OHV-Initial and Ultimate Alternatives Scenarios	4-40
4-13	Summary of 2025 Deficiencies Under the FEC-APV-Initial and Ultimate Alternatives Scenarios	4-41
4-14	Summary of 2025 Beneficial Effects and Adverse Impacts Under the FEC-APV-Initial and Ultimate Alternatives Scenarios	4-44
4-15	Summary of 2025 Traffic Share Percentages for the Direct Adverse Impacts of the FEC-APV-Initial and Ultimate Alternatives Scenarios.....	4-47
4-16	Summary of 2025 Deficiencies Under the CC-Initial and Ultimate Alternatives Scenarios	4-51
4-17	Summary of 2025 Beneficial Effects and Adverse Impacts Under the CC-Initial and Ultimate Alternatives Scenarios	4-52
4-18	Summary of 2025 Traffic Share Percentages for the Direct Adverse Impacts of the CC-Initial and Ultimate Alternatives Scenarios	4-54
4-19	Summary of 2025 Deficiencies Under the CC-ALPV-Initial and Ultimate Alternatives Scenarios	4-55
4-20	Summary of 2025 Beneficial Effects and Adverse Impacts Under the CC-ALPV-Initial and Ultimate Alternatives Scenarios.....	4-59
4-21	Summary of 2025 Traffic Share Percentages for the Direct Adverse Impacts of the CC-ALPV-Initial and Ultimate Alternatives Scenarios	4-61
4-22	Summary of 2025 Deficiencies Under the CC-OHV-Initial and Ultimate Alternatives Scenarios	4-64
4-23	Summary of 2025 Beneficial Effects and Adverse Impacts Under the CC-OHV-Initial and Ultimate Alternatives Scenarios	4-65
4-24	Summary of 2025 Traffic Share Percentages for the Direct Adverse Impacts of the CC-OHV-Initial and Ultimate Alternatives Scenarios	4-67
4-25	Summary of 2025 Deficiencies Under the A7C-Initial and Ultimate Alternatives Scenarios	4-68

LIST OF TABLES (cont)

4-26	Summary of 2025 Beneficial Effects and Adverse Impacts Under the A7C-Initial and Ultimate Alternatives Scenarios	4-71
4-27	Summary of 2025 Traffic Share Percentages for the Direct Adverse Impacts of the A7C-Initial and Ultimate Alternatives Scenarios	4-73
4-28	Summary of 2025 Deficiencies Under the A7C-FECV-Initial and Ultimate Alternatives Scenarios	4-78
4-29	Summary of 2025 Beneficial Effects and Adverse Impacts Under the A7C-FECV-Initial and Ultimate Alternatives Scenarios.....	4-79
4-30	Summary of 2025 Deficiencies Under the A7C-FECV-C-Initial and Ultimate Alternatives Scenarios	4-81
4-31	Summary of 2025 Beneficial Effects and Adverse Impacts Under the A7C-FECV-C-Initial and Ultimate Alternatives Scenarios.....	4-85
4-32	Summary of 2025 Deficiencies Under the AIO Alternative Scenarios	4-87
4-33	Summary of 2025 Beneficial Effects and Adverse Impacts Under the AIO Alternative Scenarios.....	4-90
4-34	Summary of 2025 Traffic Share Percentages for the Direct Adverse Impacts of the AIO Alternative	4-93
4-35	Summary of 2025 Deficiencies Under the AIP Alternative Scenarios.....	4-97
4-36	Summary of 2025 Beneficial Effects and Adverse Impacts Under the AIP Alternative Scenarios.....	4-98
4-37	Summary of 2025 Traffic Share Percentages for the Direct Adverse Impacts of the AIP Alternative.....	4-100
4-38	Summary of 2025 Deficiencies Under the I-5 Alternative Scenarios.....	4-102
4-39	Summary of 2025 Beneficial Effects and Adverse Impacts Under the I-5 Alternative Scenarios	4-107
4-40	Summary of 2025 Traffic Share Percentages for the Direct Adverse Impacts of the I-5 Alternative.....	4-110
4-41	2025 Daily Systemwide VMT and VHT Differences Under the SOCTIIP Build Alternatives	4-113
4-42	Summary of 2025 Congestion on I-5 in the SOCTIIP Study Area.....	4-119
4-43	Summary of 2025 Vehicle Delay on the Arterial System in the SOCTIIP Study Area	4-125
4-44	Summary of 2025 Travel Times to and from I-5 at the Orange/San Diego County Border.....	4-129
5-1	Summary of 2025 Improvements for the Direct Adverse Impacts of the FEC-TV-Initial and Ultimate Alternatives	5-3
5-2	Summary of 2025 Improvements for the Direct Adverse Impacts of the FEC-OHV-Initial and Ultimate Alternatives	5-5
5-3	Summary of 2025 Improvements for the Direct Adverse Impacts of the FEC-APV-Initial and Ultimate Alternatives.....	5-6

LIST OF TABLES (cont)

5-4	Summary of 2025 Improvements for the Direct Adverse Impacts of the CC-Initial and Ultimate Alternatives	5-7
5-5	Summary of 2025 Improvements for the Direct Adverse Impacts of the CC-ALPV-Initial and Ultimate Alternatives	5-9
5-6	Summary of 2025 Improvements for the Direct Adverse Impacts of the CC-OHV-Initial and Ultimate Alternatives	5-10
5-7	Summary of 2025 Improvements for the Direct Adverse Impacts of the A7C-Initial and Ultimate Alternatives.....	5-11
5-8	Summary of 2025 Improvements for the Direct Adverse Impacts of the AIO Alternative	5-14
5-9	Summary of 2025 Improvements for the Direct Adverse Impacts of the AIP Alternative	5-18
5-10	Summary of 2025 Improvements for the Direct Adverse Impacts of the I-5 Alternative.....	5-23
6-1	Summary of Direct Adverse Impacts, Mitigation Measures and CEQA Level of Significance After Mitigation for Traffic and Circulation.....	6-3
6-2	Summary of Direct Adverse Impacts that Remain Significant After Mitigation	6-20
7-1	Summary of 2025 Deficiencies Under the No Action Alternative Special Analysis Scenarios.....	7-4
7-2	Summary of 2025 Congestion and Delay Statistics for the No Action Alternative Special Analysis Scenarios	7-5
7-3	Summary of 2025 Deficiencies Under the Toll-Free Special Analysis Scenarios	7-10
7-4	Summary of 2025 Congestion and Delay Statistics for the Toll-Free Special Analysis Scenarios.....	7-12
7-5	2025 Peak Hour LOS Summary Table for the FTC-S/I-5 Transition Ramps Under the Far East Alignment	7-15
7-6	2025 Peak Hour LOS Summary Table for the FTC-S/I-5 Transition Ramps Under the Central Alignment.....	7-17
7-7	Existing Weekday Versus Weekend Relationships on I-5	7-19
7-8	Existing Weekday Peak Hour/ADT Relationships	7-20
7-9	Existing Weekday Versus Weekend Relationships on the Toll Roads.....	7-21
7-10	Existing Weekday Versus Weekend Relationships on SR 91 at the Orange/Riverside County Border	7-22
7-11	Geographic Composition of Year 2025 Traffic on the FTC-S	7-26

GLOSSARY OF ACRONYMS

G.1 ACRONYMS FOR THE BUILD ALTERNATIVES

There are a number of Build Alternatives considered for the South Orange County Transportation Infrastructure Improvement Project. The acronyms for the build alternatives are listed below.

Far East Corridor - Complete - Initial Alternative	FEC-Initial Alternative
Far East Corridor - Complete - Ultimate Alternative	FEC-Ultimate Alternative
Far East Corridor - Modified - Initial Alternative	FEC-M-Initial Alternative
Far East Corridor - Modified - Ultimate Alternative	FEC-M-Ultimate Alternative
Far East Corridor - West - Initial Alternative	FEC-W-Initial Alternative
Far East Corridor - West - Ultimate Alternative	FEC-W-Ultimate Alternative
Far East Corridor - Talega Variation - Initial Alternative	FEC-TV-Initial Alternative
Far East Corridor - Talega Variation - Ultimate Alternative	FEC-TV-Ultimate Alternative
Far East Corridor - Cristianitos Variation - Initial Alternative	FEC-CV-Initial Alternative
Far East Corridor - Cristianitos Variation - Ultimate Alternative	FEC-CV-Ultimate Alternative
Far East Corridor - Agricultural Fields Variation - Initial Alternative	FEC-AFV-Initial Alternative
Far East Corridor - Agricultural Fields Variation - Ultimate Alternative	FEC-AFV-Ultimate Alternative
Far East Corridor - Ortega Highway Variation - Initial Alternative	FEC-OHV-Initial Alternative
Far East Corridor - Ortega Highway Variation - Ultimate Alternative	FEC-OHV-Ultimate Alternative
Far East Corridor - Avenida Pico Variation - Initial Alternative	FEC-APV-Initial Alternative
Far East Corridor - Avenida Pico Variation - Ultimate Alternative	FEC-APV-Ultimate Alternative
Central Corridor - Complete - Initial Alternative	CC-Initial Alternative
Central Corridor - Complete - Ultimate Alternative	CC-Ultimate Alternative
Central Corridor - Avenida La Pata Variation - Initial Alternative	CC-ALPV-Initial Alternative
Central Corridor - Avenida La Pata Variation - Ultimate Alternative	CC-ALPV-Ultimate Alternative
Central Corridor - Ortega Highway Variation - Initial Alternative	CC-OHV-Initial Alternative
Central Corridor - Ortega Highway Variation - Ultimate Alternative	CC-OHV-Ultimate Alternative

Alignment 7 Corridor - Complete - Initial Alternative	A7C-Initial Alternative
Alignment 7 Corridor - Complete - Ultimate Alternative	A7C-Ultimate Alternative
Alignment 7 Corridor- 7 Swing Variation - Initial Alternative	A7C-7SV-Initial Alternative
Alignment 7 Corridor- 7 Swing Variation - Ultimate Alternative	A7C-7SV-Ultimate Alternative
Alignment 7 Corridor - Far East Crossover Variation - Initial Alternative	A7C-FECV-Initial Alternative
Alignment 7 Corridor - Far East Crossover Variation - Ultimate Alternative	A7C-FECV-Ultimate Alternative
Alignment 7 Corridor - Far East Crossover - Modified - Initial Alternative	A7C-FEC-M-Initial Alternative
Alignment 7 Corridor - Far East Crossover - Modified - Ultimate Alternative	A7C-FEC-M-Ultimate Alternative
Alignment 7 Corridor - Far East Crossover (Cristianitos) Variation - Initial Alternative	A7C-FECV-C-Initial Alternative
Alignment 7 Corridor - Far East Crossover (Cristianitos) Variation - Ultimate Alternative	A7C-FECV-C-Ultimate Alternative
Alignment 7 Corridor - Far East Crossover (Agricultural Fields Variation - Initial Alternative	A7C-FECV-AF-Initial Alternative
Alignment 7 Corridor - Far East Crossover (Agricultural Fields Variation - Ultimate Alternative	A7C-FECV-AF-Ultimate Alternative
Alignment 7 Corridor - Ortega Highway Variation - Initial Alternative	A7C-OHV-Initial Alternative
Alignment 7 Corridor - Ortega Highway Variation - Ultimate Alternative	A7C-OHV-Ultimate Alternative
Alignment 7 Corridor - Avenida La Pata Variation - Initial Alternative	A7C-ALPV-Initial Alternative
Alignment 7 Corridor - Avenida La Pata Variation - Ultimate Alternative	A7C-ALPV-Ultimate Alternative
Arterial Improvements Only Alternative	AIO Alternative
Arterial Improvements Plus HOV and Spot Mixed-Flow Lanes on I-5 Alternative	AIP Alternative
I-5 Widening Alternative	I-5 Alternative

G.2 OTHER ACRONYMS

ACOE	United States Army Corps of Engineers
ADT	Average daily traffic
AUX	Auxiliary lane

Avd	Avenida
Ave	Avenue
Blvd	Boulevard
CAA	Community Analysis Area
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CIP	Capital Improvement Program
Cm	Camino
CMP	Congestion Management Program
CSUF	California State University Fullerton
CT-RCR	Caltrans Route Concept Report
DU, DUs	Dwelling unit, dwelling units
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
ETC	Eastern Transportation Corridor
FHWA	Federal Highway Administration
FTC	Foothill Transportation Corridor
FTC-N	Foothill Transportation Corridor - North
FTC-S	Foothill Transportation Corridor - South
GMP	Orange County Growth Management Plan
HCM 2000	Highway Capacity Manual 2000
HOV	High occupancy vehicle
I-5	Interstate 5
I-15	Interstate 15
I-405	Interstate 405
ICU	Intersection capacity utilization
kph	Kilometers per hour
LOS, LOSs	Level of service, levels of service
LUE	Land Use Element
MCB	Marine Corps Base
MOU	Memorandum of Understanding
MPAH	Orange County Master Plan of Arterial Highways

mph	Miles per hour
NB	Northbound
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
OCCOG	Orange County Council of Governments
OCP-2000	Orange County Projections 2000
OCTA	Orange County Transportation Authority
OCTAM 3.1	Orange County Transportation Analysis Model, Version 3.1
Pkwy	Parkway
RCFPP	San Clemente Regional Circulation Financing and Phasing Program
RCR	Route Concept Report
Rd	Road
Rms	Rooms
RMV	Rancho Mission Viejo
RSA	Regional Statistical Area
RTP	Regional Transportation Plan
SANDAG	San Diego Association of Governments
SB	Southbound
SCAG	Southern California Association of Governments
SCSAM	South (Orange) County Sub-Area Model
SDG&E	San Diego Gas & Electric
SEIR	Subsequent Environmental Impact Report
sf	Square feet
SJHTC	San Joaquin Hills Transportation Corridor
SOCTIIP	South Orange County Transportation Infrastructure Improvement Project
SR 241	State Route 241
SR 73	State Route 73
SR 74	State Route 74
SR 91	State Route 91
TAZ	Traffic analysis zone
TCA	Foothill/Eastern Transportation Corridor Agency
TDM	Transportation demand management
TEA-21	Transportation Equity Act for the twenty-first century
TSM	Transportation systems management
USFWS	United States Fish and Wildlife Service
V/C	Volume/capacity ratio
VHT	Vehicle hours of travel

VMT	Vehicle miles of travel or vehicle miles traveled
vpd	Vehicles per day
vph	Vehicles per hour
vphpl	Vehicles per hour per lane

G.3 MEASUREMENTS

The measurement units in this report are expressed in both metric and English units, with metric units followed by English units in parentheses. For ease of translation, the following conversions are included to allow the reader to better understand the measurements in the report.

English/Metric Conversion	Metric/English Conversion
AREA	AREA
1 square foot = 0.093 square meters	1 square meter = 10.764 square feet
1 acre = 0.405 hectares, 4047 square meters	1 hectare = 2.471 acres
1 square mile (640 acres) = 2.59 square kilometers	1 square kilometer = 0.386 square miles
LENGTH	LENGTH
1 inch = 2.54 centimeters	1 centimeter = 0.394 inch
1 foot = 30.480 centimeters or 0.305 meters	--
1 yard = 0.914 meters	1 meter = 1.094 yards
1 mile = 1.609 kilometers	1 kilometer = 0.621 mile

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

ES.1.1 OVERVIEW OF THE TRAFFIC ANALYSIS

The traffic analysis for the South Orange County Transportation Infrastructure Improvement Project (SOCTIIP) was carried out to provide an understanding of traffic conditions in southern Orange County and to evaluate various alternative plans for the future circulation system in southern Orange County that would help to alleviate future traffic congestion and accommodate the need for mobility, access, goods movement and future demands on the I-5 freeway and arterial network in the study area.

Basic assumptions used in the traffic study included adopted socioeconomic projections for growth in southern Orange County and growth projections for the northern portion of San Diego County. Several growth scenarios were used for the portion of the study area in the unincorporated territory of the County of Orange. This area is the largest remaining and unentitled landholding in southern Orange County and the study area, and an important consideration was to identify how future development in this area might affect the objectives for the project.

The traffic analysis specifically considered two basic sets of parameters for assessing the potential beneficial and adverse effects of the SOCTIIP Alternatives related to circulation. The first group of parameters addresses specific operating and level of service (LOS) conditions that would occur under each alternative at specific locations on the circulation system. These include general parameters such as the reduction in average daily traffic (ADT) on Interstate 5 (I-5) under the various alternatives. These parameters also include identification of peak hour deficiencies at specific individual facilities in the SOCTIIP study area, including intersections, freeway ramps, and freeway mainline segments. This first group of parameters allows an understanding of how individual facilities would operate during peak conditions under each of the SOCTIIP Alternatives. However, these parameters do not provide a complete picture of the systemwide benefits of the individual alternatives related to the circulation system in the SOCTIIP study area.

The second group of parameters in the traffic study specifically considers the systemwide effectiveness of the SOCTIIP Alternatives in meeting traffic needs for the sub-regional circulation system in south Orange County. These measures of effectiveness provide systemwide and point-to-point travel time savings for persons traveling in the south Orange County sub-region and congestion levels on I-5 and the arterial road system in the SOCTIIP study area. The measures of effectiveness allow for comparison of the performance of the SOCTIIP Build Alternatives to each other and to the No Action Alternative.

As a result, these multiple parameters provide information that allows an understanding of the benefits and effects of the SOCTIIP Alternatives at three levels:

- The sensitivity of the system to impacts of future growth in the unincorporated County portion of the study area.
- Specific beneficial and adverse effects on traffic operations at individual locations (intersections, freeway ramps, freeway segments) in south Orange County.
- Overall benefits for the sub-regional circulation system in south Orange County.

With respect to the first of these, the analyses of growth scenarios for the unincorporated area of the County indicate that all of the alternatives are relatively insensitive to the land use assumptions in this area. This is partly due to the fact that the traffic generation for the most aggressive land use assumptions for that area represent approximately four percent of the projected future traffic in Orange County, and partly due to the regional nature of travel patterns on major study area highways such as I-5.

With respect to the comparative evaluation, it is important to consider all these parameters together when assessing the relative merits of each of the SOCTIIP Alternatives and not to consider only one or two parameters without understanding the broader picture of beneficial and adverse effects on the circulation system. For example, the two alternatives that include widening I-5 perform well when only parameters such as peak hour deficiencies and congestion levels on I-5 and point to point travel times along the I-5 corridor are considered. This would be expected to occur because these Alternatives propose substantial improvements specifically to I-5 and the I-5 interchanges with local arterials. However, these Alternatives do not necessarily outperform other SOCTIIP Alternatives that do not include widening I-5 when parameters such as systemwide travel time savings and levels of congestion on the arterial system are considered.

Conversely, the SOCTIIP Alternatives that propose a toll corridor do not perform as well in reducing individual deficiencies on I-5, because they do not specifically propose improvements to I-5. However, they perform well in terms of systemwide travel time savings and other parameters that consider the performance of the sub-regional transportation system. In general, the SOCTIIP Alternatives that propose a toll corridor result in the greatest systemwide benefits for overall circulation in the SOCTIIP study area while the Alternatives that propose widening I-5 result in the greatest traffic benefits on I-5 and at the I-5 interchanges with local arterials.

This Executive Summary discusses the following:

- Description of the SOCTIIP Alternatives, including several No Action scenarios.
- Description of the background land use, traffic demand and circulation system assumptions for the traffic analyses.
- Summary of existing traffic conditions in the south Orange County sub-region.

- Summary of long-range traffic conditions, focusing on peak hour deficiencies at individual intersections, freeway segments and freeway ramps, and the beneficial effects and adverse impacts under each of the Build Alternatives.
- Summary of the long-range measures of effectiveness, assessing the performance of the south Orange County sub-regional circulation system under each of the Build Alternatives.
- Summary of mitigation measures that address long-range adverse impacts of the Build Alternatives on the circulation system in the study area.
- Summary of special issues that were considered in the traffic analysis.

ES.1.2 OVERVIEW OF THE ALTERNATIVES AND BACKGROUND ASSUMPTIONS

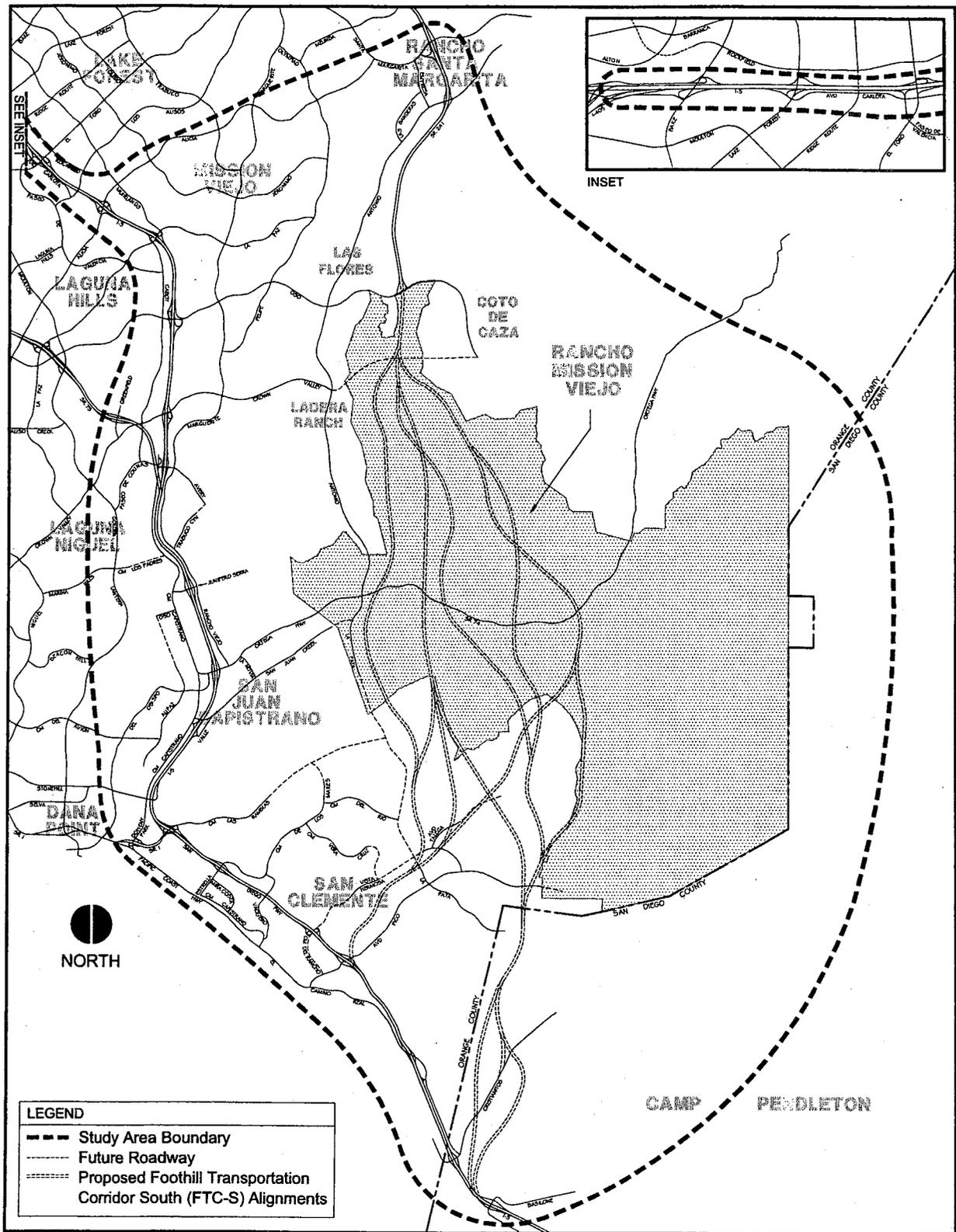
The alternatives under consideration consist of several transportation improvement alternatives (referred to in this report as Build Alternatives) as well as several scenarios based on a No Action Alternative. The Build Alternatives include widening of I-5, arterial road improvements with and without widening I-5, and toll road corridors that would be southern extensions of the existing Foothill Transportation Corridor (FTC). This toll road corridor, frequently referred to as the FTC-South or FTC-S, would extend south from the existing FTC terminus at Oso Parkway to I-5 at approximately the Orange/San Diego County border. The FTC-S is included in the Orange County Master Plan of Arterial Highways (MPAH), the long-range plan for the circulation system in Orange County including the SOCTIIP study area.

A number of scenarios based on different assumptions with respect to future land use development and circulation system improvement were analyzed for the SOCTIIP Alternatives based on year 2025 traffic conditions. For each scenario, various types of traffic forecast data were applied to determine forecasted deficiencies on the circulation system. Various measures of effectiveness were quantified based on the traffic forecast data so that the performance of the SOCTIIP Alternatives in south Orange County can be compared. The specific adverse impacts associated with the Build Alternatives were identified and mitigation measures that address the adverse impacts of each Build Alternative were developed.

ES.1.3 SOCTIIP TRAFFIC ANALYSIS STUDY AREA

The study area for the SOCTIIP traffic analysis is illustrated in Figure ES-1. This illustration also shows the alignments of the FTC-S corridor alternatives. In the alternatives that include widening of I-5, improvements are proposed along I-5 from approximately Interstate 405 (I-405) in the north to the Orange/San Diego County border in the south.

The study area encompasses a number of incorporated cities in Orange County including the Cities of Mission Viejo, San Juan Capistrano and San Clemente, and parts of the Cities of Rancho Santa Margarita, Laguna Hills, Laguna Niguel and Dana Point. Also included is the unincorporated part of Orange County from Rancho Santa Margarita to San Clemente which encompasses the communities of Las Flores, Ladera and Talega and the Rancho Mission Viejo



SOCTIIP Traffic Analysis Study Area

(RMV) area. The study area also incorporates the northwest part of San Diego County, including a portion of Marine Corps Base (MCB) Camp Pendleton. Included in the study area is I-5 from the I-405 confluence in Orange County to south of Basilone Road in San Diego County. Within the study area, all major intersections, arterial roadways, freeway/tollway mainline segments and freeway/tollway ramps were analyzed. The results of the analysis provide a comprehensive assessment of the study area circulation system.

ES.1.4 SELECTION OF A PREFERRED ALTERNATIVE

The selection of a preferred alternative will be based on an evaluation of all the SOCTIIP Alternatives in the environmental analysis and determining which alternative best fulfills the purpose and need of the proposed project. Consideration will be given to a variety of economic, environmental, technical and social factors that will be evaluated for each alternative. Analytic and scientific data for each of the various factors will be the basis for comparison of the alternatives. No one factor will be considered as singly overriding in its influence to determine the preferred alternative, but must be considered in the overall context of all the factors being evaluated.

The SOCTIIP is being evaluated under the National Environmental Policy Act and Clean Water Act Section 404 Memorandum of Understanding (NEPA/404 MOU) to improve integration of transportation projects requiring compliance with NEPA and Section 404 Guidelines. The Federal Highway Administration (FHWA), California Department of Transportation (Caltrans), United States Army Corps of Engineers (ACOE), United States Environmental Protection Agency (EPA) and United States Fish and Wildlife Service (USFWS) are participants with the Transportation Corridor Agency (TCA) in evaluating the SOCTIIP Alternatives and in determining a preferred alternative based on evaluation of various factors and also the need to select the least environmentally damaging practicable alternative in order to obtain a Section 404 permit for the project.

ES.1.5 I-5 AND ARTERIAL ALTERNATIVES

Caltrans is responsible for improvements to State Highways and, in conjunction with FHWA, has responsibility for improvements to the federal highway system in California. Traffic on the segment of I-5 in southern Orange County has steadily increased as the regional and local population has grown. Caltrans and FHWA do not have any long term plans or funding to widen or improve I-5 to accommodate this additional future traffic other than I-5 improvements that are included in the Regional Transportation Plan (RTP). Alternatives that include widening of I-5 beyond the RTP were incorporated in the range of alternatives being considered for the SOCTIIP as part of the NEPA/404 integration process. However, as described in the *Project Alternatives Technical Report* (P&D Consultants, 2003), if one of the I-5 widening alternatives is selected for implementation, there is no identified project proponent or funding source for these Alternatives, other than the I-5 improvements that are included in the RTP, and the TCA would not be the lead agency for implementing and would not provide or seek funding for financing these alternatives. As a result, because there is currently no project proponent or funds committed to improve I-5 beyond the RTP, there is a very limited possibility that the alternatives that include widening of I-5 beyond the RTP, if selected, would be built by the year 2025.

Similarly, the County of Orange and local jurisdictions are responsible for identifying future arterial roadway needs in the SOCTIIP study area and implementing any required improvements. Arterial improvements planned in the project area are included in the Orange County MPAH. As part of the NEPA/404 integration process, two arterial highway improvement alternatives that propose arterial improvements beyond those shown in the MPAH were identified and are evaluated in the technical studies for the SOCTIIP. However, similar to I-5, there are no specific project proponents or funding currently identified for the arterial improvements under these two alternatives and the TCA would not be the lead agency for implementing and would not provide or seek funding for financing these alternatives.

Caltrans, the County of Orange and the local jurisdictions in the SOCTIIP study area continuously evaluate the circulation system (freeways and arterials) and pursue needed improvements as funding becomes available. For example, it is expected that Caltrans and the local jurisdictions in the SOCTIIP study area will identify and implement interchange and ramp improvements on I-5 by 2025 in response to demand and peak period deficiencies. However, as noted here, the SOCTIIP Alternatives that include widening I-5 and/or arterial improvements are not currently identified by any of these agencies as projects for which they would serve as lead agency or for which they have identified funding sources. It is likely that freeway and arterial improvements identified, funded and implemented by Caltrans and these local agencies by 2025 may be substantially less than the improvements identified in the freeway and arterial improvement alternatives considered in the SOCTIIP analysis.

The TCA is the project proponent and would be the lead agency in the implementation and funding of the SOCTIIP Alternatives that propose extension of the FTC south from its existing terminus at Oso Parkway. It is anticipated that if a toll road alternative is selected for implementation, that road would be operational by approximately 2007.

ES.2 DESCRIPTION OF THE SOCTIIP ALTERNATIVES

The SOCTIIP Alternatives studied in this traffic analysis include a No Action Alternative and Build Alternatives that involve improvements to the circulation system in southern Orange County. Table ES-1 summarizes the SOCTIIP Alternatives. The basic characteristics of the alternatives are described below.

ES.2.1 NO ACTION ALTERNATIVE

The No Action Alternative assumes that the circulation system in southern Orange County is developed consistent with current adopted regional, sub-regional, and local transportation plans, with the exception that the FTC is not extended south of its existing terminus (the FTC-S is currently included in the adopted transportation plans for southern Orange County).

ES.2.2 BUILD ALTERNATIVES WITH TOLL ROAD CORRIDORS

In each of the Build Alternatives that includes a toll road corridor, the FTC (also known as State Route 241 or SR 241) is proposed to be fully extended south of its existing terminus at Oso Parkway to I-5 or partially extended to an intersecting arterial road south of Oso Parkway. There

Table ES-1
OVERVIEW OF THE SOCTIIP ALTERNATIVES

Alternative	Acronym/Short Title
NO ACTION ALTERNATIVE	
No Action Alternative	No Action Alternative
BUILD ALTERNATIVES WITH TOLL ROAD CORRIDORS (INITIAL AND ULTIMATE)	
Far East Corridor Alignment Alternatives	
Far East Corridor – Complete Alternatives	FEC-Initial and Ultimate Alternatives
Far East Corridor – Modified Alternatives	FEC-M-Initial and Ultimate Alternatives
Far East Corridor – West Alternatives	FEC-W-Initial and Ultimate Alternatives
Far East Corridor – Talega Variation Alternatives	FEC-TV-Initial and Ultimate Alternatives
Far East Corridor – Cristianitos Variation Alternatives	FEC-CV-Initial and Ultimate Alternatives
Far East Corridor – Agricultural Fields Variation Alternatives	FEC-AFV-Initial and Ultimate Alternatives
Far East Corridor – Ortega Highway Variation Alternatives	FEC-OHV-Initial and Ultimate Alternatives
Far East Corridor – Avenida Pico Variation Alternatives	FEC-APV-Initial and Ultimate Alternatives
Central Corridor Alignment Alternatives	
Central Corridor – Complete Alternatives	CC-Initial and Ultimate Alternatives
Central Corridor – Avenida La Pata Variation Alternatives	CC-ALPV-Initial and Ultimate Alternatives
Central Corridor – Ortega Highway Variation Alternatives	CC-OHV-Initial and Ultimate Alternatives
Alignment 7 Corridor Alignment Alternatives	
Alignment 7 Corridor – Complete Alternatives	A7C-Initial and Ultimate Alternatives
Alignment 7 Corridor – 7 Swing Variation Alternatives	A7C-7SV-Initial and Ultimate Alternatives
Alignment 7 Corridor – Far East Crossover Variation Alternatives	A7C-FECV-Initial and Ultimate Alternatives
Alignment 7 Corridor – Far East Crossover – Modified Alternatives	A7C-FECV-M-Initial and Ultimate Alternatives
Alignment 7 Corridor – Far East Crossover (Cristianitos) Variation Alternatives	A7C-FECV-C-Initial and Ultimate Alternatives
Alignment 7 Corridor – Far East Crossover (Agricultural Fields) Variation Alternatives	A7C-FECV-AF-Initial and Ultimate Alternatives
Alignment 7 Corridor – Ortega Highway Variation Alternatives	A7C-OHV-Initial and Ultimate Alternatives
Alignment 7 Corridor – Avenida La Pata Variation Alternatives	A7C-ALPV-Initial and Ultimate Alternatives
BUILD ALTERNATIVES WITHOUT TOLL ROAD CORRIDORS	
Arterial Improvements Only Alternative	AIO Alternative
Arterial Improvements Plus HOV and Spot Mixed-Flow Lanes on I-5 Alternative	AIP Alternative
I-5 Widening Alternative	I-5 Alternative

are three primary alignments for the toll road corridor alternatives: a Far East Corridor, a Central Corridor, and an Alignment 7 Corridor. Combinations and variations of these alignments result in the corridor alternatives that are listed in Table ES-1.

Each corridor alternative is proposed as an initial corridor alternative and an ultimate corridor alternative. The initial corridor alternatives are designed to serve traffic demand through year 2025, whereas the ultimate corridor alternatives, with more travel lanes on the FTC-S than the initial corridor alternatives, are not anticipated to be needed until after 2025. Separate traffic analyses for the initial corridor and ultimate corridor alternatives were not carried out because the year 2025 traffic forecasts are essentially the same for the initial corridor and the ultimate corridor.

ES.2.3 BUILD ALTERNATIVES WITHOUT TOLL ROAD CORRIDORS

Three Build Alternatives propose improvements beyond the improvements in the adopted transportation plans for southern Orange County but with no FTC-S toll road corridor. One alternative proposes arterial road improvements in the study area beyond those shown in the MPAH. Another alternative assumes arterial road improvements beyond the MPAH plus construction of high occupancy vehicle (HOV) and spot mixed-flow lanes on I-5, and another assumes the widening of I-5 (HOV and mixed-flow lanes) without arterial road improvements. As noted earlier, there is no defined project proponent and no defined funding sources for these non-toll road alternatives. As a result, there is uncertainty whether these alternatives, if selected for implementation, would actually be operational by 2025.

ES.3 BACKGROUND ASSUMPTIONS

ES.3.1 ORANGE COUNTY LAND USE AND TRAFFIC DEMAND

The adopted land use and development growth projections for Orange County are the Orange County Projections 2000 (OCP-2000) which cover from 2000 to 2025. The OCP-2000 projections provide the primary set of demographic data that is applied in this analysis with the exception of the Cities of Mission Viejo, San Juan Capistrano and San Clemente and the unincorporated community of Ladera where General Plan land use data that is consistent with OCP-2000 is applied.

Table ES-2 summarizes the growth in population, residential dwelling units (DUs), employment and average daily traffic (ADT) projections for southern Orange County, including the SOCTIIP traffic analysis study area, and Orange County as a whole. By year 2025, south Orange County is projected to experience a 25 percent increase in housing, a 51 percent increase in employment, and a 35 percent increase in ADT demand, compared with countywide increases of 14 percent, 36 percent, and 20 percent in housing, employment, and ADT, respectively.

RMV Development Plans

As mentioned earlier, several future land use assumptions were used for the unincorporated area of the County (the RMV area). This focused analysis was needed because 1) several of the

Table ES-2
 EXISTING AND FUTURE LAND USE AND TRAFFIC DEMAND IN ORANGE COUNTY

Category	Southern Orange County	Entire Orange County Area
Residential Dwelling Units		
Year 2000	213,119	976,133
Year 2025	266,159	1,116,855
Percent Increase (2000 to 2025)	25%	14%
Population		
Year 2000	543,555	2,852,965
Year 2025	704,404	3,418,193
Percent Increase (2000 to 2025)	30%	20%
Employment		
Year 2000	206,198	1,501,393
Year 2025	310,676	2,044,123
Percent Increase (2000 to 2025)	51%	36%
Average Daily Traffic		
Year 2000	3,223,200	17,159,500
Year 2025	4,342,400	20,525,000
Percent Increase (2000 to 2025)	35%	20%

Source: Orange County Projections-2000 (OCP-2000) demographic data and General Plan land use based demographic data for the Cities of Mission Viejo, San Juan Capistrano and San Clemente and the unincorporated community of Ladera.

SOCTIIP alternatives traverse the unincorporated RMV area and 2) it is important to assess the performance of the alternatives in relation to different land uses in this area because it is the largest, un-entitled property in southern Orange County. Four sets of future development assumptions for the currently undeveloped part of the RMV area, shown on Figure ES-1, were applied in the 2025 evaluation of the SOCTIIP Alternatives. The first is based on the approximately 21,000 DU plan that is included in the OCP-2000 projections which represents the currently adopted forecasts for the RMV area. A second is based on the 14,000 DU proposed development plan filed by the landowner with the County of Orange in 2001.

Two additional special analysis scenarios involving the undeveloped RMV areas are based on the No Action Alternative. One assumes development at the intensity allowed under the existing General Plan zoning designation that is in place for the RMV area. This would result in the development of approximately 6,250 DUs in the RMV area. The other assumes no future development in the currently undeveloped RMV areas. Table ES-3 summarizes the population, residential DU, employment and ADT statistics for each of the four RMV scenarios. The ratio of population to dwelling units varies for the OCP-2000, proposed RMV plan and the existing General Plan because each plan assumes a different blend of single-family versus multi-family dwelling units and the population per household is different for single-family and multi-family dwelling units. No employment is assumed for the existing General Plan because non-residential (employment based) development is not permitted under the General Plan zoning designation that is currently in place in the RMV area.

Table ES-3
 LAND USE AND TRAFFIC DEMAND FOR RMV DEVELOPMENT SCENARIOS

Development Plan	Residential Dwelling Units	Population	Employment	Average Daily Traffic
OCP-2000	20,560	47,928	10,283	237,400
Proposed RMV Plan	14,000	39,952	16,209	184,100
Existing General Plan	6,250	14,569	0	54,500
No Future Development	0	0	0	0

Based on the traffic growth projections in Table ES-2, the 184,100 ADT projected to be generated by the future development of the RMV area under the proposed RMV plan represents 16% and 4%, respectively, of the projected 1,119,200 ADT growth in traffic (4,342,400 ADT in year 2025 minus 3,223,200 ADT in year 2000) and the 4,342,400 ADT total traffic in southern Orange County, and less than 1% of the projected 20,525,000 ADT total traffic countywide. Because the remaining southern Orange County and countywide land use and traffic growth outside the RMV area are components of existing general plans for the affected jurisdictions, no scenarios were analyzed that were inconsistent with those adopted growth scenarios.

ES.3.2 I-5 TRAFFIC DEMAND

The amount of future traffic on I-5 at the Orange County/San Diego County border is important in the analysis of the SOCTIIP Alternatives, and the future traffic volume at this location has been the subject of considerable study over the years. The Orange County Transportation Authority (OCTA) developed the most recent traffic forecasts on I-5 at the county border in coordination with the San Diego Association of Governments (SANDAG), the Southern California Association of Governments (SCAG) and Caltrans.

A volume of 201,000 vehicles per day is forecast on I-5 at the Orange County/San Diego County border in year 2025 compared to an existing (2000/2001) traffic count of 126,000 vehicles per day. Approximately 58 percent of the existing and future I-5 traffic at the county border is projected to travel to and from Orange County and approximately 16 percent (around one quarter of the 58 percent) is destined to the SOCTIIP study area (i.e., southern Orange County). The 16 percent was found to remain relatively constant in each of the four RMV development plans that were analyzed. The remaining 42 percent of I-5 traffic at the county border is projected to travel beyond Orange County (i.e., to and from the Counties of Los Angeles, Riverside, San Bernardino and Ventura).

ES.3.3 CIRCULATION SYSTEM

A fundamental part of the SOCTIIP traffic analysis pertains to the background highway circulation system on which the various SOCTIIP Alternatives are superimposed. The Orange County MPAH, which is administered by the OCTA, provides a long-range circulation plan for the arterial system in the SOCTIIP study area. The RTP provides a long-range circulation plan for the regional circulation system. The RTP for the Counties of Orange, Los Angeles, Riverside, San Bernardino and Ventura is administered by SCAG, and the RTP for San Diego County is administered by SANDAG.

For the year 2025 analysis of the SOCTIIP Alternatives, two levels of future circulation system improvement are applied, one assuming implementation of only those MPAH and RTP improvements that are currently funded and/or committed, and another assuming buildout of the MPAH and RTP. Refer to Section 3.4 (Future Circulation System) for a complete description of the future circulation plans in southern Orange County.

RMV Circulation Plans

Although a specific roadway access plan has not formally been prepared for the 21,000 DU plan that is assumed for RMV in OCP-2000, the OCTA and the County of Orange have recommended the use of a general roadway plan that provides access between the RMV development areas and the surrounding MPAH arterial network. This type of general access plan is also applied in the analysis of the scenario based on the existing General Plan zoning designations for RMV (i.e., 6,250 DU development plan).

For the analysis of the 14,000 DU proposed RMV plan, an access plan provided by the County of Orange that includes proposed changes to the MPAH is applied. For the scenario in which no

future RMV development is assumed, no additional roadway improvements beyond those that are currently included in the MPAH are assumed in the RMV area. Section 3.4 provides a detailed description of these RMV circulation plans.

ES.4 ANALYSIS SCENARIOS

A number of long-range scenarios were analyzed for each SOCTIIP Alternative based on year 2025 traffic conditions. The purpose of analyzing multiple scenarios for each alternative is to provide an understanding of how in general the transportation system responds to the various alternatives under different background conditions, and also to identify how the adverse impacts of each alternative vary under different scenarios. The scenarios are based on the following combinations of circulation system (i.e., committed versus buildout as defined earlier in Section ES.3.3) and RMV development plan background assumptions:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Various combinations of these four scenarios were applied in the traffic analysis of the SOCTIIP Alternatives. The following describes the scenarios that were analyzed for the No Action Alternative and the Build Alternatives.

ES.4.1 NO ACTION ALTERNATIVE ANALYSIS SCENARIOS

The No Action Alternative was analyzed based on each of the four scenarios listed above. As described in detail in the *Project Alternatives Technical Report*, the technical analyses for the SOCTIIP consider two No Action Alternatives. Those two No Action Alternatives correspond to Scenarios 3 and 4. In addition, the *Project Alternatives Technical Report* identifies four specific No Action Scenarios that were developed for special analyses. Two of those No Action Scenarios correspond to Scenarios 1 and 2 which are as follows:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.

The other two No Action Scenarios were treated as special traffic analysis scenarios and are addressed in the special issues section of this report. Those two No Action Scenarios are based on the following background assumptions:

- Special Traffic Analysis Scenario 1: Committed circulation system with 6,250 DU existing General Plan for RMV.
- Special Traffic Analysis Scenario 2: Committed circulation system with no future RMV development.

ES.4.2 BUILD ALTERNATIVE ANALYSIS SCENARIOS

A range of scenarios was analyzed for each Build Alternative which allows for an understanding of the circulation impacts of each alternative and for comparison among the alternatives. The scenarios that were analyzed for the Build Alternatives are summarized as follows:

FEC, FEC-TV, CC, A7C-FECV and I-5 Alternatives

- Scenarios 1, 3 and 4

FEC-CV, FEC-OHV, FEC-APV, CC-ALPV, CC-OHV, A7C and A7C-FECV-C Alternatives

- Scenarios 1 and 3

AIO and AIP Alternatives

- Scenarios 3 and 4

Certain long-range scenarios are less likely to occur by 2025 than others, therefore all scenarios (1, 2, 3 and 4) were not evaluated for each Build Alternative. For example, it is likely that the MPAH and RTP systems would be built out by 2025, so scenarios based on committed improvements only are not likely to occur by 2025. Similarly, the scenarios that assume the 21,000 DU OCP-2000 development plan for RMV are not likely to occur because the landowner has submitted plans for substantially fewer DUs (14,000). Scenario 2 (committed circulation system and 21,000 DU plan for RMV), the least likely of the four scenarios, was therefore only analyzed for the No Action Scenario described in the *Project Alternatives Technical Report* and was not analyzed for any of the Build Alternatives.

Scenario 1 (committed circulation system and 14,000 DU plan for RMV) is not consistent with the filed plan RMV and is also considered unlikely. However, to understand the effects of all the SOCTIIP Alternatives, including the No Action Alternative, for a circulation system that does not represent buildout of the MPAH and RTP by 2025, Scenario 1 (committed circulation system and 14,000 DU proposed RMV plan) was analyzed for all of the alternatives with the exception of the AIO and AIP Alternatives. The arterial improvements proposed in the AIO and AIP Alternatives represent the majority of non-committed MPAH roadway improvements in the SOCTIIP study area. Future traffic conditions based on the AIO and AIP Alternatives would therefore be similar for the committed and buildout circulation system scenarios.

Scenario 3 (buildout circulation system and 14,000 DU proposed RMV plan) is considered the most likely of the four scenarios because it reflects the proposed RMV development plan and the adopted circulation plan. Scenario 3 was therefore analyzed for all of the SOCTIIP Alternatives, including the No Action Alternative. Because the 21,000 DU plan for RMV is unlikely to be developed, a limited number of the Build Alternatives were analyzed based on Scenario 4 (buildout circulation system and 21,000 DU plan for RMV). In addition to the No Action Alternative, Scenario 4 was also analyzed for the Build Alternatives without a toll corridor and for the Build Alternatives with the FTC-S toll road from Oso Parkway to I-5, but only for alternatives with substantially different alignments for the FTC-S. Because of its similarity to the CC Alternative, the A7C Alternative was not analyzed based on Scenario 4 (i.e., future traffic conditions under Scenario 4 would be similar for the CC and A7C Alternatives).

Finally, separate traffic analyses were not carried out for Build Alternatives that provide essentially the same connections to the circulation system and therefore result in the same future traffic conditions. The Build Alternatives that fall into this category are summarized as follows:

- FEC-M Alternative: same future traffic conditions as the FEC Alternative.
- FEC-W Alternative: same future traffic conditions as the FEC Alternative.
- FEC-AFV Alternative: same future traffic conditions as the FEC Alternative.
- A7C-7SV Alternative: same future traffic conditions as the A7C Alternative.
- A7C-FEC-M Alternative: same future traffic conditions as the A7C-FECV Alternative.
- A7C-FECV-AF Alternative: same future traffic conditions as the A7C-FECV Alternative.
- A7C-OHV Alternative: same future traffic conditions as the CC-OHV Alternative.
- A7C-ALPV Alternative: same future traffic conditions as the CC-ALPV Alternative.

ES.5 ANALYSIS RESULTS

ES.5.1 CIRCULATION SYSTEM PERFORMANCE STANDARDS

The performance of facilities on the circulation system in the traffic analysis study area was evaluated based on two primary measures. The first is "capacity" which establishes the vehicle carrying ability of a facility and the second is "volume." The volume measure is either a traffic count (in the case of existing conditions) or a traffic volume forecast for a future point in time. The ratio between the volume and the capacity gives a volume/capacity (V/C) ratio and based on that V/C ratio, a corresponding level of service (LOS) is defined. Traffic LOSs are designated A through F with LOS A representing free flow conditions and LOS F representing severe traffic congestion.

The performance of the circulation system in the study area under existing and future conditions was evaluated based on AM and PM peak hour LOSs for arterial intersections, freeway/tollway mainline segments and freeway/tollway ramps. For freeway/tollway mainline segments and ramps, V/C ratios were calculated based on the traffic volume (existing or future) and the capacity at each individual facility. For arterial intersections, the intersection capacity utilization (ICU) methodology was applied. This methodology sums the V/C ratios for the critical movements of an intersection based on peak hour volumes (existing or future) and the geometric configuration of the intersection.

The jurisdictions in the study area have established various LOS standards that serve both as a guideline for evaluating observed traffic conditions and as a target or goal when evaluating future development plans and circulation system modifications. Table ES-4 summarizes the adopted LOS standards and corresponding V/C and ICU values for arterial intersections, freeway/tollway mainline segments and freeway/tollway ramps in the study area. As the table indicates, LOS E (V/C not to exceed 1.00) is the adopted performance standard for freeway/tollway mainline segments and ramps. LOS D (ICU not to exceed 0.90) is the performance standard for most intersections in the study area with the exception of intersections designated on the Congestion Management Program (CMP) highway network and Crown Valley Parkway intersections between I-5 and Marguerite Parkway where LOS E (ICU not to exceed 1.00) is the performance standard. Refer to Section 1.5 (Performance Criteria and Standards) for

Table ES-4
 LOS PERFORMANCE STANDARDS FOR THE STUDY AREA CIRCULATION SYSTEM

Circulation System Component	LOS Performance Standard
Arterial Intersections	LOS D (peak hour ICU less than or equal to 0.90) for locations other than CMP intersections and Crown Valley Parkway intersections between I-5 and Marguerite Parkway. LOS E (peak hour ICU less than or equal to 1.00) for CMP intersections (i.e., the I-5 ramp intersections at Crown Valley Parkway and at Ortega Highway, and the intersection of Moulton Parkway and Crown Valley Parkway) and Crown Valley Parkway intersections between I-5 and Marguerite Parkway.

Freeway/Tollway Mainline Segments LOS E (peak hour V/C less than or equal to 1.00)

Freeway/Tollway Ramps LOS E (peak hour V/C less than or equal to 1.00)

Abbreviations: CMP – Congestion Management Program
 ICU – Intersection Capacity Utilization
 LOS – Level of Service
 V/C – Volume/Capacity Ratio

additional discussion on the V/C calculation methodologies and adopted LOS performance standards that were applied in this analysis.

ES.5.2 EXISTING TRAFFIC CONDITIONS

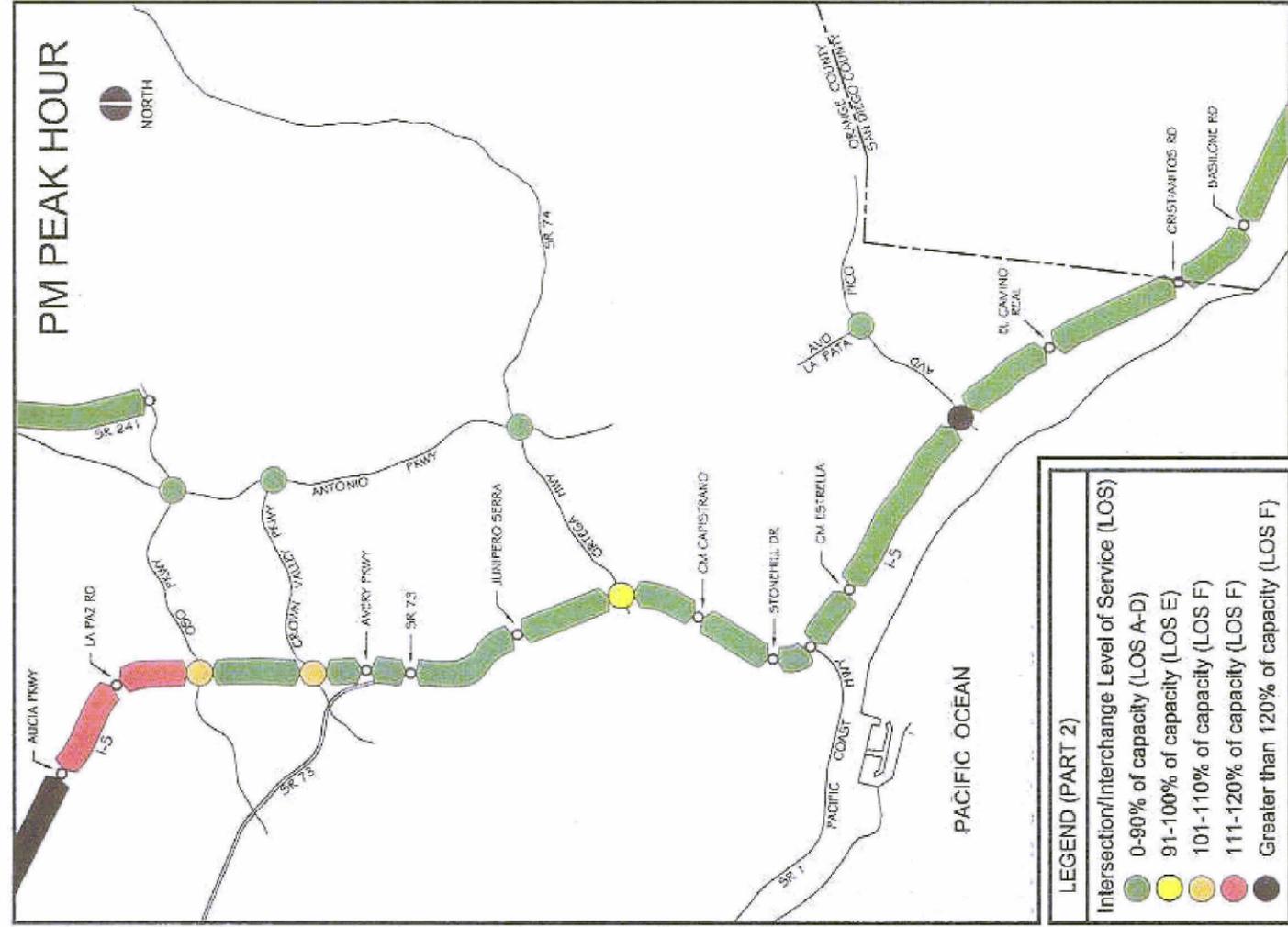
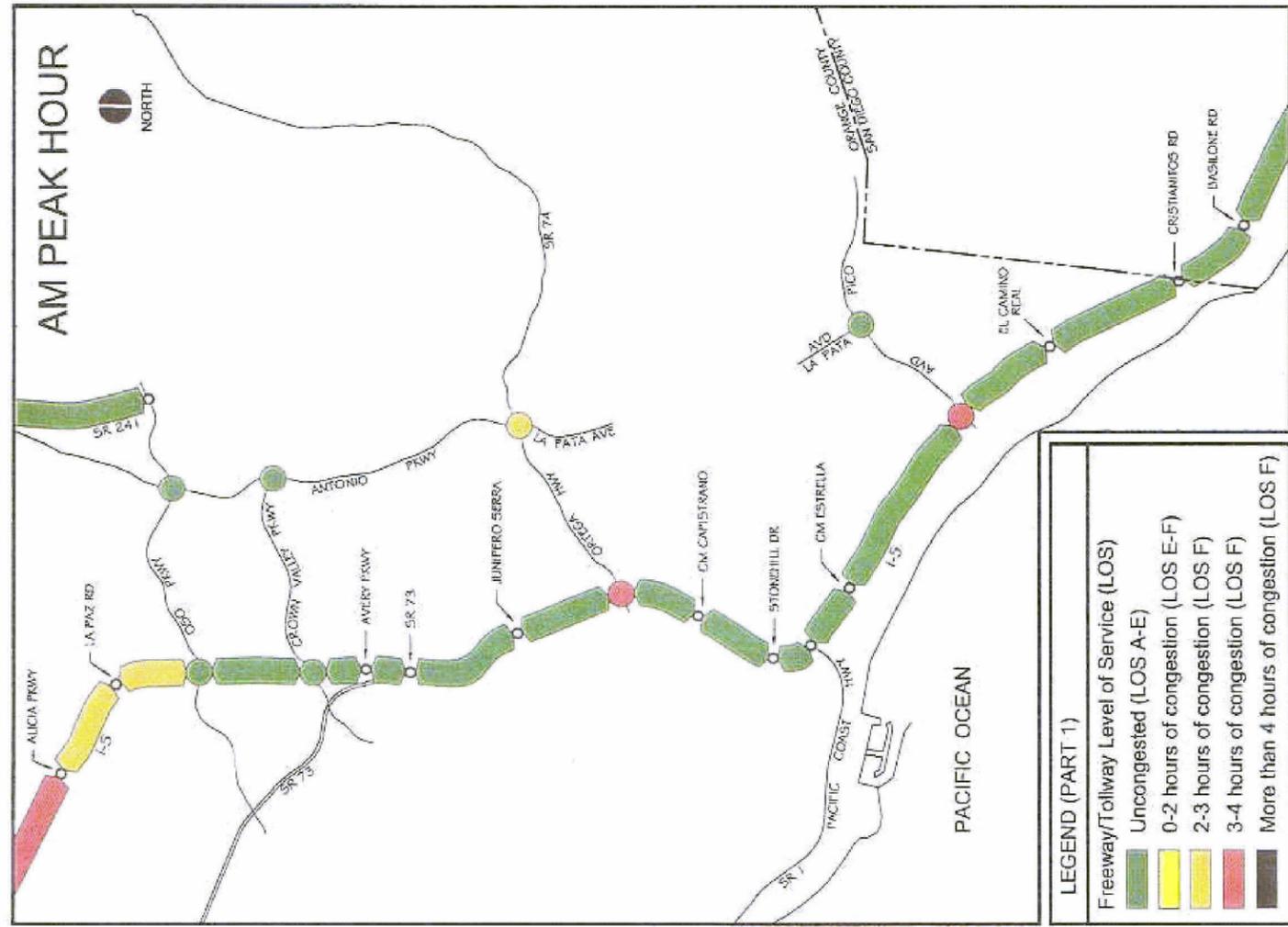
Existing traffic conditions in the traffic analysis study area were analyzed based on traffic count data collected in late 2000 and early 2001. Figure ES-2 illustrates existing weekday peak hour (AM and PM) traffic conditions on the freeway/tollway system and main arterial roadways in the study area. These traffic conditions were determined based on peak hour LOSs for freeway/tollway mainline segments, freeway/tollway interchanges (ramps and intersections), and arterial intersections. Traffic conditions on the freeway/tollway system are expressed in terms of the hours of congestion estimated based on existing peak hour V/C ratios on individual freeway/tollway segments. Traffic conditions at freeway/tollway interchanges and arterial intersections are expressed as the percentage of available existing capacity that is used by existing traffic based on peak hour ramp V/C ratios and peak hour ICUs at ramp intersections.

Under existing (2000/2001) traffic conditions, congestion occurs during the peak hours on I-5 north of Oso Parkway. Also, one or more ramps and/or ramp intersections at the I-5 interchanges at Oso Parkway, Crown Valley Parkway, Ortega Highway and Avenida Pico operate over capacity in one or both of the peak hours, as does the intersection of Ortega Highway and Antonio Parkway/La Pata Avenue. Refer to Section 3.2 (Existing Traffic Conditions) for a more detailed discussion of the 2000/2001 existing traffic conditions in the SOCTIIP study area and to Section 4.3.2 (I-5 Congestion in the Study Area) for the methodology applied to estimate the duration of congestion on freeway/tollway mainline segments based on peak hour V/C ratios.

ES.5.3 WEEKEND TRAFFIC ASSESSMENT

The primary focus of the traffic analysis that is presented in this report is on weekday conditions. The weekday average daily and AM and PM peak hour traffic conditions that were analyzed for the study area circulation system do not address weekend traffic conditions. However, an evaluation of weekday versus weekend relationships based on existing traffic conditions was carried out to provide general conclusions with respect to weekend traffic.

For most of the study area circulation system, traffic patterns follow those generally found in urbanized areas. A typical traffic pattern is for weekday peak hour volumes to be higher than the weekend peak hour volumes, even though the ADT on a weekend day may approach or even exceed that of a weekday because traffic tends to spread more evenly throughout the day on a weekend day. For this reason, the SOCTIIP analysis concentrated on the average weekday volumes and the impact analysis specifically focused on the weekday peak hours (AM and PM). However, a unique characteristic of the SOCTIIP study area is the weekend traffic pattern on I-5 in the southernmost part of the study area. Daily and peak hour traffic volumes across the Orange County/San Diego County border are higher on weekend days than on weekdays. This is an indication that traffic demand patterns across the county border are higher on weekends than during weekdays, a phenomenon that could be attributed, for example, to vacation and leisure amenities and attractions located along the Orange County and San Diego County coastline.



Existing Weekday Peak Hour Traffic Conditions

SOCTIIP EIS/SEIR
Traffic and Circulation Technical Report

Figure ES-2

Toll roads also exhibit traffic patterns that differ from typical non-toll facilities. Traffic patterns on the existing Orange County toll roads show a high peaking characteristic in which the proportion of weekday ADT that occurs during the peak is substantially higher than on other major facilities such as I-5. Another feature of toll road traffic patterns is lower weekend versus weekday usage. Refer to Section 7.4 (Weekend Traffic Assessment) for detailed information on the existing weekend versus weekday traffic relationships on I-5 and the existing Orange County toll roads.

A reasonable assumption with respect to future traffic in the SOCTIIP study area is that the existing weekend versus weekday traffic patterns in southern Orange County and northern San Diego County will continue in the future. The population growth in southern California that is causing the increase in weekday traffic volumes across the Orange County/San Diego County border can be anticipated to cause a similar increase in weekend traffic.

The long-range (year 2025) traffic forecast data presented in this report indicates that future volumes on I-5 will exceed the peak hour capacity of that facility on weekdays at various locations along I-5 in the study area. Based on the existing weekend traffic patterns on I-5, this means that the demand on I-5 will also reach or exceed capacity on weekends, particularly on the section of I-5 near the Orange/San Diego County border. All the SOCTIIP Build Alternatives except for the I-5 Alternative are forecast to reduce weekday traffic volumes on I-5 in southern Orange County compared to the No Action Alternative. The Build Alternatives other than the I-5 Alternative would, therefore, also reduce weekend traffic volumes and congestion on I-5 compared to the No Action Alternative except on I-5 south of the Orange/San Diego County border. Conversely, because I-5 weekday traffic volumes are forecast to be higher in the I-5 Alternative than in the No Action Alternative, I-5 weekend traffic volumes in the I-5 Alternative are also forecast to be higher than in the No Action Alternative.

For the SOCTIIP Build Alternatives that include a FTC-S toll road, the higher weekend versus weekday traffic volumes forecast on the southernmost section of I-5 should cause the traffic volumes on the toll road to exhibit higher relative weekend usage than currently experienced on the other existing toll roads in Orange County. The issue is whether the peak hour weekend demand on the toll road could exceed the weekday peak hour demand and, thereby, create greater capacity needs for the FTC-S toll road.

For weekend peak usage to reach or exceed the weekday peak usage on the proposed FTC-S toll road, the usage pattern would have to differ substantially from that currently observed on the existing toll roads. In relative terms, weekend peak hour usage would have to be approximately three times greater than current toll road weekend usage. This would involve a major change in travel behavior, and there is nothing in the weekend versus weekday traffic data that was evaluated or in the future weekday traffic forecast data for the SOCTIIP Alternatives that would support such a change. While the I-5 congestion would certainly add substantially to the FTC-S toll road traffic demand, it is unlikely that the increase would be of sufficient magnitude for demand on the toll road to reach the same peak hour volume as the weekday peak. It is, therefore, reasonable to conclude that the capacity needs for the toll road can be determined based on the weekday peak hour demand forecasts that are summarized in this report.

ES.5.4 LONG-RANGE TRAFFIC CONDITIONS

For each of the analysis scenarios described earlier in Section ES.4, year 2025 weekday ADT and peak hour (AM and PM) volumes were forecast for roadways throughout the study area. The following Sections summarize future weekday ADT traffic forecasts for each of the long-range scenarios that were analyzed, future weekday peak hour traffic conditions under the No Action Alternative and the SOCTIIP Build Alternatives, and the beneficial effects and adverse impacts of SOCTIIP Build Alternatives.

ES.5.4.1 ADT Traffic Forecasts

Table ES-5 summarizes existing ADT volumes and year 2025 ADT volumes that are forecast in each of the analysis scenarios for various segments of I-5 and the FTC-S in the study area. Illustrations showing existing and year 2025 ADT volumes for roadways throughout the study area are provided in Appendix C. Under 2025 conditions based on the No Action Alternative, traffic volumes on the I-5 segments listed in Table ES-5 are forecast to increase by 56,000 to 115,000 ADT (depending on the segment and scenario) compared to existing traffic conditions. This represents increases over the existing ADT volumes on I-5 ranging from 16 to 49 percent.

The variance in traffic forecasts for the key segments analyzed under the No Action Alternative and the Build Alternatives show that the traffic volumes are relatively insensitive to the land use assumptions for RMV (Scenarios 1 through 4 in each of the alternatives). The changes in ADT on I-5 under 2025 conditions based on the Build Alternative scenarios compared to the No Action Alternative scenarios are summarized as follows:

- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 reduce the ADT on I-5 compared to the No Action Alternative scenarios by 24,000 to 36,000 in the vicinity of Avenida Pico, by 14,000 to 25,000 in the vicinity of Ortega Highway, by 8,000 to 13,000 in the vicinity of Oso Parkway, and by 7,000 to 9,000 south of the I-405 confluence.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road reduce the ADT on I-5 compared to the No Action Alternative scenarios by 15,000 to 20,000 in the vicinity of Avenida Pico, by 9,000 to 17,000 in the vicinity of Ortega Highway, by 7,000 to 9,000 in the vicinity of Oso Parkway, and by 5,000 to 7,000 south of the I-405 confluence.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata reduce the ADT on I-5 compared to the No Action Alternative scenarios by 5,000 to 11,000 in the vicinity of Avenida Pico, by 8,000 to 14,000 in the vicinity of Ortega Highway, by 5,000 to 7,000 in the vicinity of Oso Parkway, and by 4,000 to 5,000 south of the I-405 confluence.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway reduce the ADT on I-5 compared to the No Action Alternative scenarios by 1,000 or less in the southern part of the study area and by 1,000 to 2,000 in the northern part of the study area.

Table ES-5
SUMMARY OF EXISTING AND FUTURE ADT VOLUMES ON I-5 AND FTC-S

Alternatives and Scenarios (a)	I-5 south of I-405	I-5 north of Oso Pkwy	I-5 north of Ortega Hwy	I-5 north of Avd Pico	FTC-S south of Oso Pkwy	FTC-S south of Ortega Hwy	FTC-S north of I-5
EXISTING CONDITIONS	357,000	285,000	236,000	206,000	--	--	--
NO ACTION ALTERNATIVE							
Year 2025 No Action Alternative							
Scenario 1	413,000	354,000	338,000	288,000	--	--	--
Scenario 2	418,000	361,000	351,000	292,000	--	--	--
Scenario 3	413,000	353,000	333,000	290,000	--	--	--
Scenario 4	419,000	361,000	340,000	291,000	--	--	--
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5							
Year 2025 FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)							
Scenario 1	404,000	341,000	316,000	261,000	57,000	43,000	26,000
Scenario 3	406,000	344,000	317,000	267,000	52,000	36,000	24,000
Scenario 4	410,000	350,000	317,000	265,000	49,000	39,000	25,000
Year 2025 FEC-TV Alternatives (Initial and Ultimate)							
Scenario 1	405,000	343,000	318,000	258,000	55,000	42,000	42,000
Scenario 3	407,000	345,000	319,000	265,000	50,000	35,000	40,000
Scenario 4	411,000	351,000	319,000	264,000	49,000	39,000	41,000
Year 2025 CC Alternatives (Initial and Ultimate)							
Scenario 1	405,000	342,000	314,000	252,000	52,000	49,000	47,000
Scenario 3	406,000	344,000	315,000	259,000	49,000	42,000	45,000
Scenario 4	410,000	349,000	316,000	258,000	49,000	48,000	46,000

Table ES-5 (cont)
SUMMARY OF EXISTING AND FUTURE ADT VOLUMES ON I-5 AND FTC-S

Alternatives and Scenarios (a)	I-5 south of I-405	I-5 north of Oso Pkwy	I-5 north of Ortega Hwy	I-5 north of Avd Pico	FTC-S south of Oso Pkwy	FTC-S south of Ortega Hwy	FTC-S north of I-5
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5 (cont)							
Year 2025 A7C and A7C-7SV Alternatives (Initial and Ultimate)							
Scenario 1	405,000	342,000	314,000	255,000	56,000	48,000	46,000
Scenario 3	406,000	344,000	315,000	262,000	52,000	41,000	43,000
Year 2025 A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)							
Scenario 1	404,000	342,000	313,000	258,000	58,000	49,000	29,000
Scenario 3	405,000	343,000	314,000	264,000	53,000	40,000	27,000
Scenario 4	410,000	349,000	317,000	264,000	41,000	39,000	27,000
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO CRISTIANITOS ROAD							
Year 2025 FEC-CV Alternatives (Initial and Ultimate)							
Scenario 1	406,000	345,000	322,000	269,000	51,000	36,000	--
Scenario 3	408,000	346,000	324,000	275,000	46,000	28,000	--
Year 2025 A7C-FECV-C Alternatives (Initial and Ultimate)							
Scenario 1	406,000	345,000	321,000	268,000	49,000	39,000	--
Scenario 3	407,000	346,000	322,000	274,000	45,000	30,000	--
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO AVENIDA PICO OR AVENIDA LA PATA							
Year 2025 FEC-APV Alternatives (Initial and Ultimate)							
Scenario 1	408,000	347,000	326,000	277,000	49,000	32,000	--
Scenario 3	409,000	348,000	327,000	282,000	44,000	24,000	--

Table ES-5 (cont)

SUMMARY OF EXISTING AND FUTURE ADT VOLUMES ON I-5 AND FTC-S

Alternatives and Scenarios (a)	I-5 south of I-405	I-5 north of Oso Pkwy	I-5 north of Ortega Hwy	I-5 north of Avd Pico	FTC-S south of Oso Pkwy	FTC-S south of Ortega Hwy	FTC-S north of I-5
--------------------------------	--------------------	-----------------------	-------------------------	-----------------------	-------------------------	---------------------------	--------------------

BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO AVENIDA PICO OR AVENIDA LA PATA (cont)

Year 2025 CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)

Scenario 1	408,000	347,000	324,000	281,000	41,000	35,000	--
Scenario 3	409,000	348,000	325,000	285,000	38,000	26,000	--

BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO ORTEGA HIGHWAY

Year 2025 FEC-OHV Alternatives (Initial and Ultimate)

Scenario 1	411,000	352,000	338,000	288,000	36,000	--	--
Scenario 3	411,000	351,000	333,000	290,000	35,000	--	--

Year 2025 CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)

Scenario 1	412,000	352,000	338,000	288,000	23,000	--	--
Scenario 3	411,000	351,000	332,000	290,000	27,000	--	--

BUILD ALTERNATIVES WITHOUT THE FTC-S TOLL ROAD

Year 2025 AIO Alternative

Scenario 3	412,000	352,000	327,000	287,000	--	--	--
Scenario 4	417,000	358,000	332,000	287,000	--	--	--

Year 2025 AIP Alternative

Scenario 3	417,000	358,000	331,000	287,000	--	--	--
Scenario 4	422,000	366,000	338,000	287,000	--	--	--

Table ES-5 (cont)
SUMMARY OF EXISTING AND FUTURE ADT VOLUMES ON I-5 AND FTC-S

Alternatives and Scenarios (a)	I-5 south of I-405	I-5 north of Oso Pkwy	I-5 north of Ortega Hwy	I-5 north of Avd Pico	FTC-S south of Oso Pkwy	FTC-S south of Ortega Hwy	FTC-S north of I-5
BUILD ALTERNATIVES WITHOUT THE FTC-S TOLL ROAD (cont)							
Year 2025 I-5 Alternative							
Scenario 1	444,000	390,000	349,000	298,000	--	--	--
Scenario 3	444,000	390,000	345,000	294,000	--	--	--
Scenario 4	451,000	399,000	354,000	295,000	--	--	--

(a) The assumptions for each scenario are as follows:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Note: In the Build Alternatives that include the FTC-S toll road, the ADT volumes on the FTC-S generally exceed the ADT reductions on I-5 when compared against the No Action Alternative scenarios. This is because in addition to diverting traffic from I-5, the FTC-S also diverts traffic from parallel arterial roads that are not listed in this summary table.

- The AIO Alternative reduces the ADT on I-5 compared to the No Action Alternative scenarios by 3,000 to 8,000 in the southern part of the study area and by 1,000 to 3,000 in the northern part of the study area.
- The AIP Alternative reduces the ADT on I-5 compared to the No Action Alternative scenarios by 2,000 to 4,000 in the southern part of the study area and increases the ADT on I-5 by 3,000 to 5,000 in the northern part of the study area.
- The I-5 Alternative increases the ADT on I-5 compared to the No Action Alternative scenarios by 4,000 to 14,000 in the southern part of the study area and by 31,000 to 38,000 in the northern part of the study area.

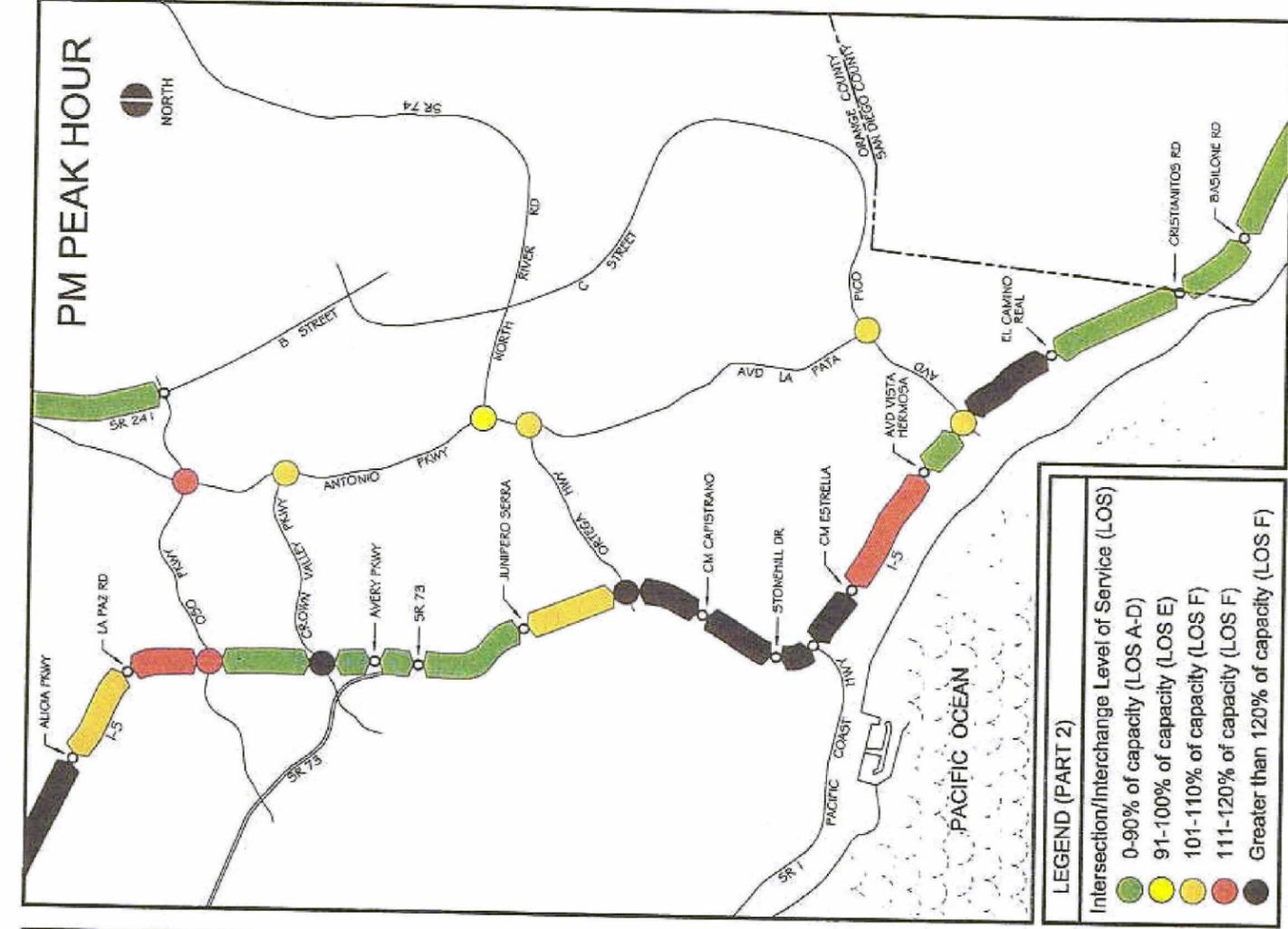
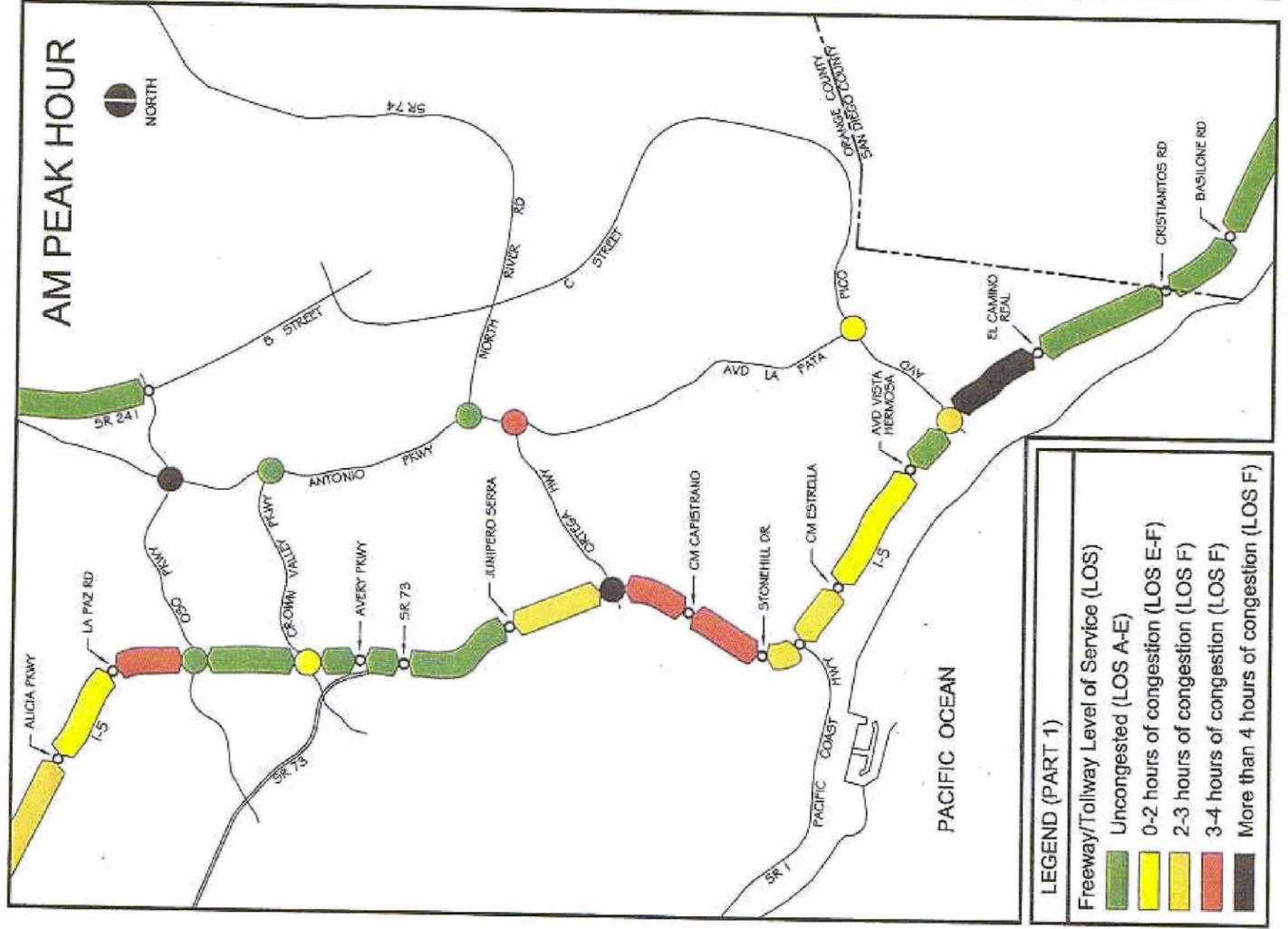
For the Build Alternatives that include the FTC-S toll road, 2025 ADT volumes on the FTC-S are summarized as follows:

- In the Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5, the ADT on the FTC-S ranges from 24,000 to 58,000.
- In the Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road, Avenida Pico or Avenida La Pata, the ADT on the FTC-S ranges from 24,000 to 51,000.
- In the Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway, the ADT on the FTC-S ranges from 23,000 to 36,000.

In the Build Alternatives that include the FTC-S toll road, the ADT volumes on the FTC-S generally exceed the ADT reductions on I-5 when compared against the No Action Alternative scenarios. This is because in addition to diverting traffic from I-5, the FTC-S alternatives also divert traffic from arterial roads in the study area that are parallel to the FTC-S.

ES.5.4.2 Peak Hour Traffic Conditions

Future weekday peak hour traffic conditions under each scenario that was analyzed for the SOCTIIP Alternatives were determined based on peak hour LOSs for freeway/tollway mainline segments, freeway/tollway interchanges (ramps and intersections), and arterial intersections. Figure ES-3 illustrates year 2025 weekday peak hour (AM and PM) traffic conditions on the freeway/tollway system and main arterial roadways in the study area under the No Action Alternative and Scenario 3 (buildout circulation system and 14,000 DU proposed RMV development plan). Future traffic conditions on the freeway/tollway system are expressed in terms of the hours of congestion estimated based on 2025 peak hour V/C ratios on individual freeway/tollway segments. Future traffic conditions at freeway/tollway interchanges and arterial intersections are expressed as the percentage of available capacity that is used based on 2025 peak hour ramp V/C ratios and peak hour ICUs at ramp intersections. Refer to Section 4.2 (Long-Range Traffic Conditions) for detailed discussions of the 2025 traffic conditions under each of the scenarios that were analyzed for the SOCTIIP Alternatives and to Section 4.3.2 (I-5



2025 Weekday Peak Hour Traffic Conditions - No Action Alternative
(Buildout Circulation System with Proposed RMV Plan)

Figure ES-3

SOCTIIP EIS/SEIR
Traffic and Circulation Technical Report

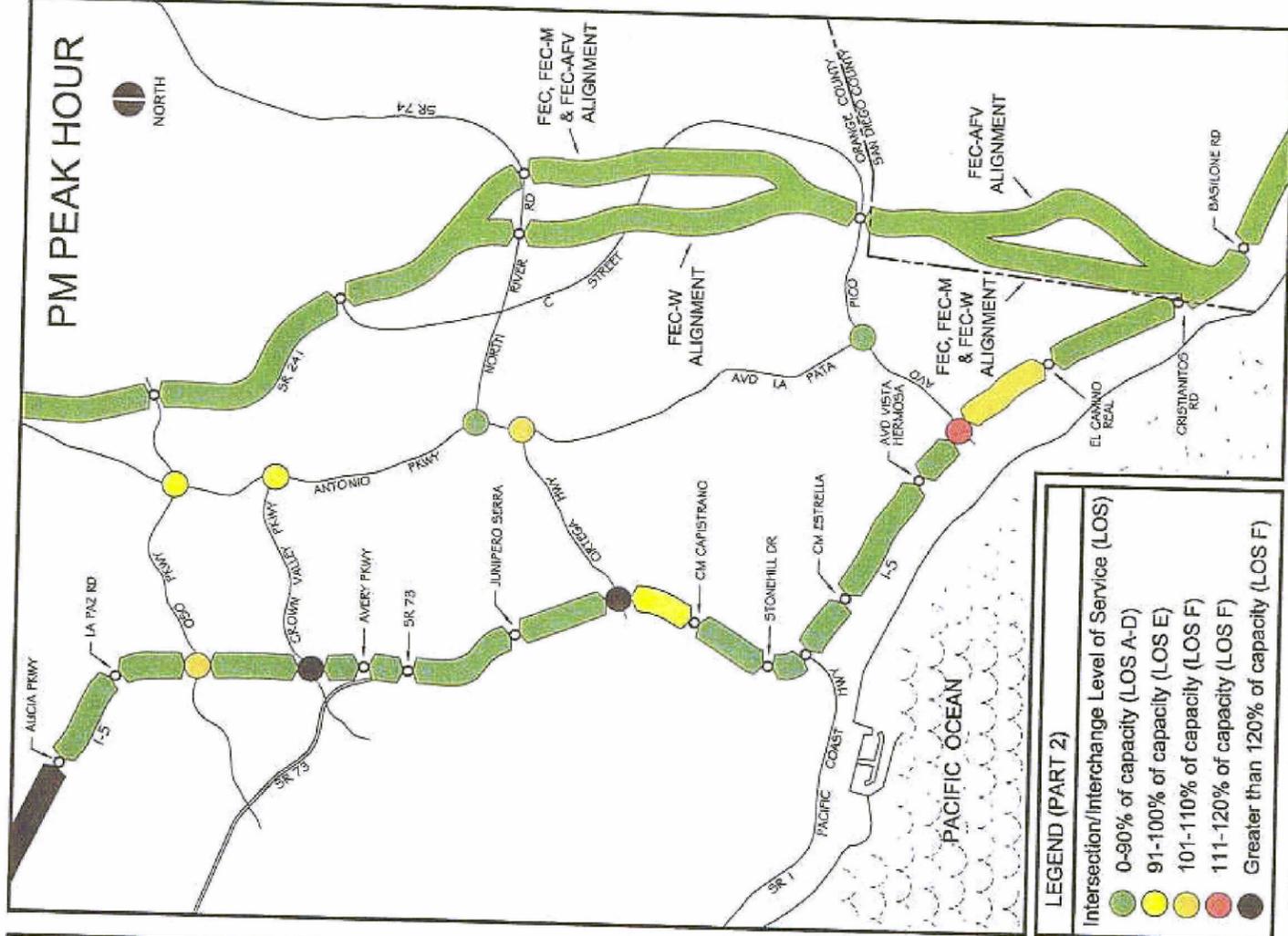
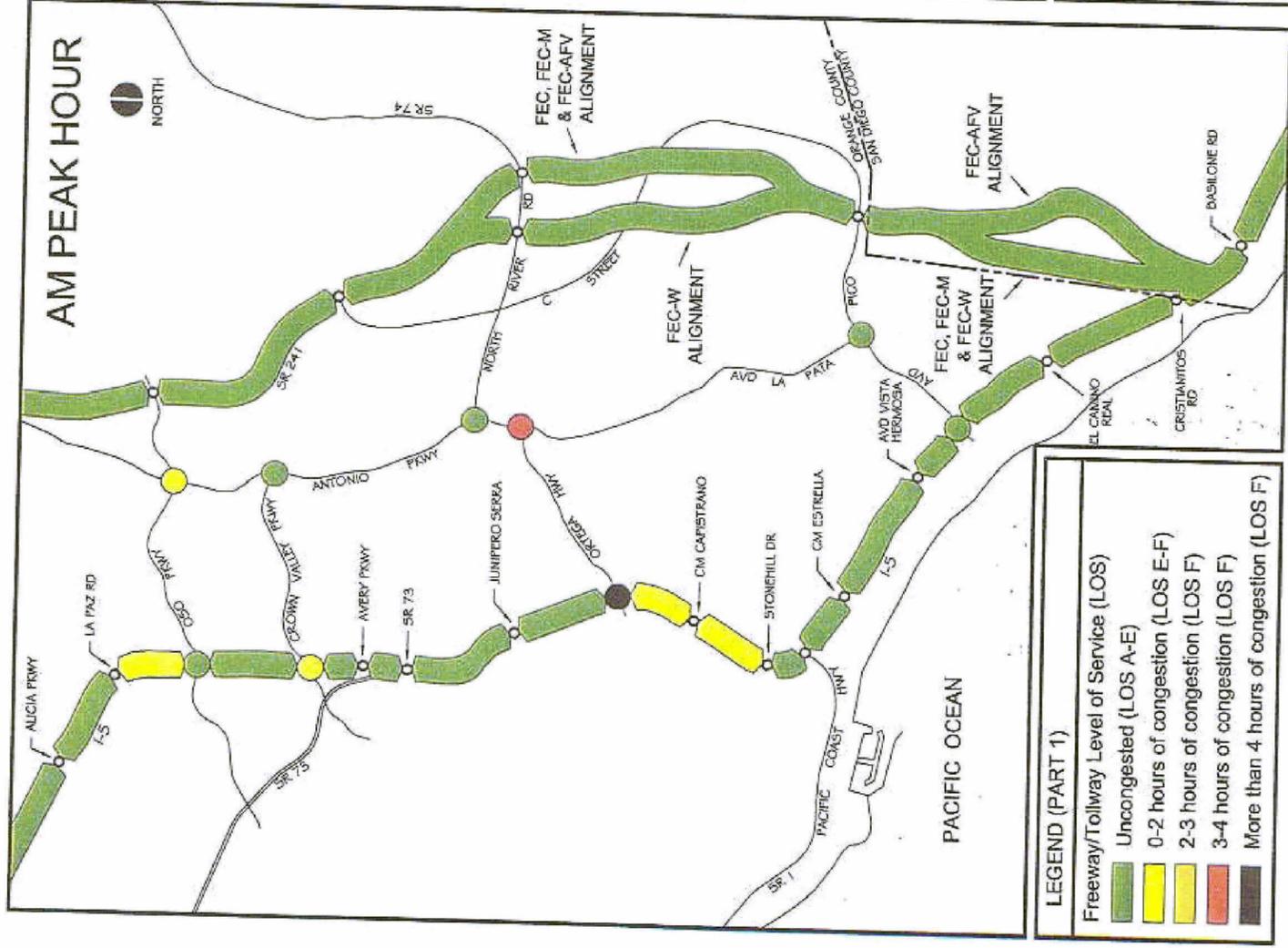
Congestion in the Study Area) for the methodology applied to estimate the duration of congestion on freeway/tollway mainline segments based on peak hour V/C ratios.

The future weekday peak hour traffic conditions in the SOCTIIP study area under the No Action Alternative provide a general understanding of the conditions against which the performance of the Build Alternatives was measured. As shown in Figure ES-3, under 2025 conditions based on the No Action Alternative and Scenario 3, extended periods of traffic congestion are forecast on I-5, particularly north of Oso Parkway and from Ortega Highway to south of Avenida Pico. Although the forecasted peak hour V/C ratios do not indicate that congestion would occur on I-5 between Junipero Serra Road and Oso Parkway, the back-up of traffic caused by the congestion problems to the north and south would likely spill over onto that stretch of I-5. One or more ramps and/or ramp intersections at the I-5 interchanges at Oso Parkway, Crown Valley Parkway, Ortega Highway and Avenida Pico are forecast to operate over capacity in one or both of the peak hours under 2025 conditions based on the No Action Alternative and Scenario 3, as are the main arterial intersections along Antonio Parkway/Avenida La Pata from Oso Parkway to Avenida Pico.

Year 2025 weekday peak hour traffic conditions based on Scenario 3 (buildout circulation system and 14,000 DU proposed RMV development plan) are summarized for each of the SOCTIIP Build Alternatives in the following illustrations:

- Figure ES-4: FEC, FEC-M, FEC-W and FEC-AFV Initial and Ultimate Alternatives
- Figure ES-5: FEC-TV Initial and Ultimate Alternatives
- Figure ES-6: FEC-CV Initial and Ultimate Alternatives
- Figure ES-7: FEC-OHV Initial and Ultimate Alternatives
- Figure ES-8: FEC-APV Initial and Ultimate Alternatives
- Figure ES-9: CC Initial and Ultimate Alternatives
- Figure ES-10: CC-ALPV Initial and Ultimate Alternatives
- Figure ES-11: CC-OHV Initial and Ultimate Alternatives
- Figure ES-12: A7C and A7C-7SV Initial and Ultimate Alternatives
- Figure ES-13: A7C-FECV, A7C-FEC-M and A7C-FECV-AF Initial and Ultimate Alternatives
- Figure ES-14: A7C-FECV-C Initial and Ultimate Alternatives
- Figure ES-15: A7C-OHV Initial and Ultimate Alternatives
- Figure ES-16: A7C-ALPV Initial and Ultimate Alternatives
- Figure ES-17: AIO Alternative
- Figure ES-18: AIP Alternative
- Figure ES-19: I-5 Alternative

The Build Alternatives result in varying degrees of improvement to the traffic conditions in the study area compared to the No Action Alternative. The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 and the Build Alternatives that include improvements to I-5 (i.e., the AIP and I-5 Alternatives) generally result in the most substantial improvement to the congestion levels on I-5 and to the LOSs at I-5 interchanges and arterial intersections. The improvements are less substantial for the Build Alternatives that include a FTC-S toll road that does not extend to I-5 and for the AIO Alternative.

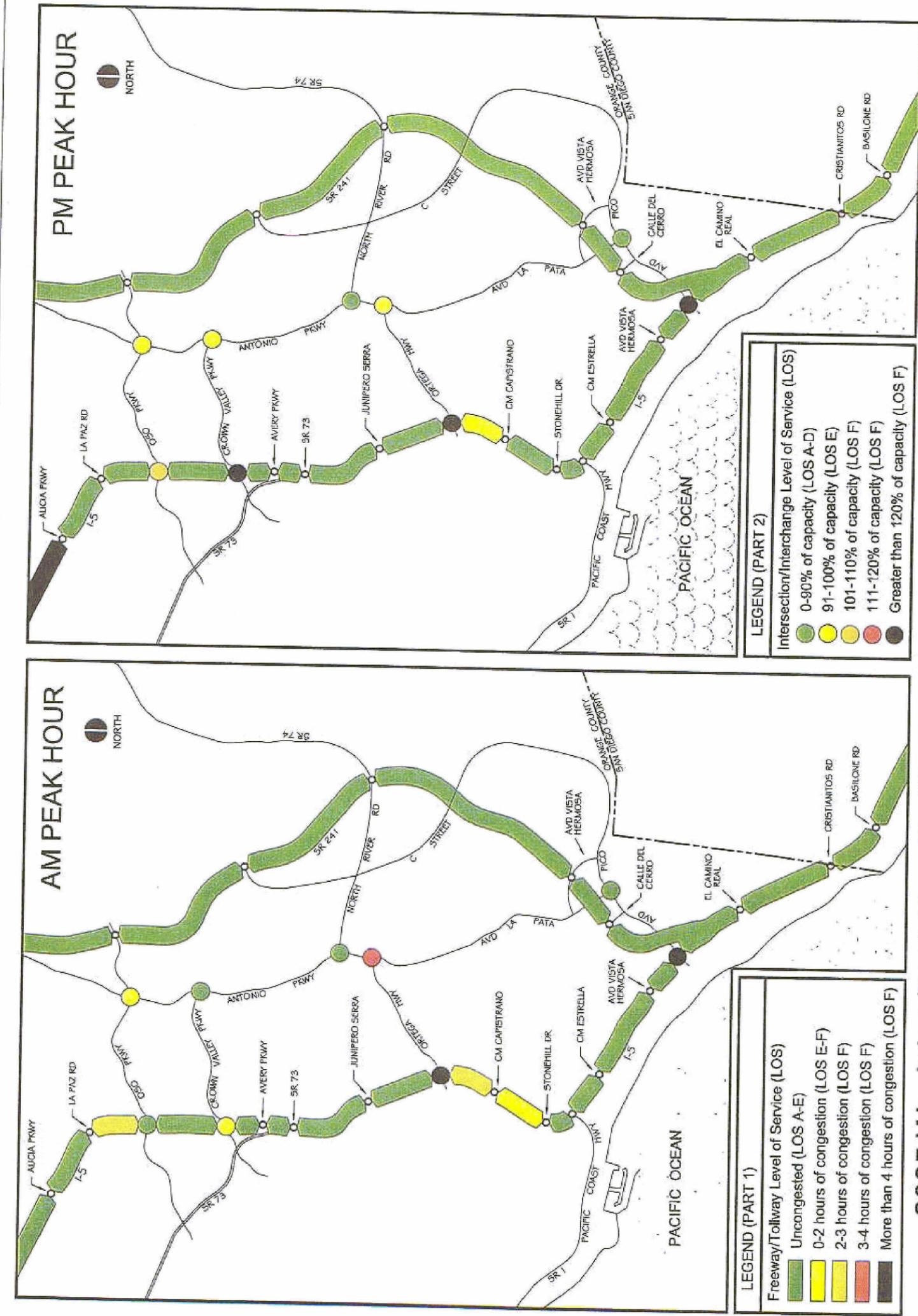


2025 Weekday Peak Hour Traffic Conditions - FEC, FEC-M, FEC-W and FEC-AFV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR

Traffic and Circulation Technical Report

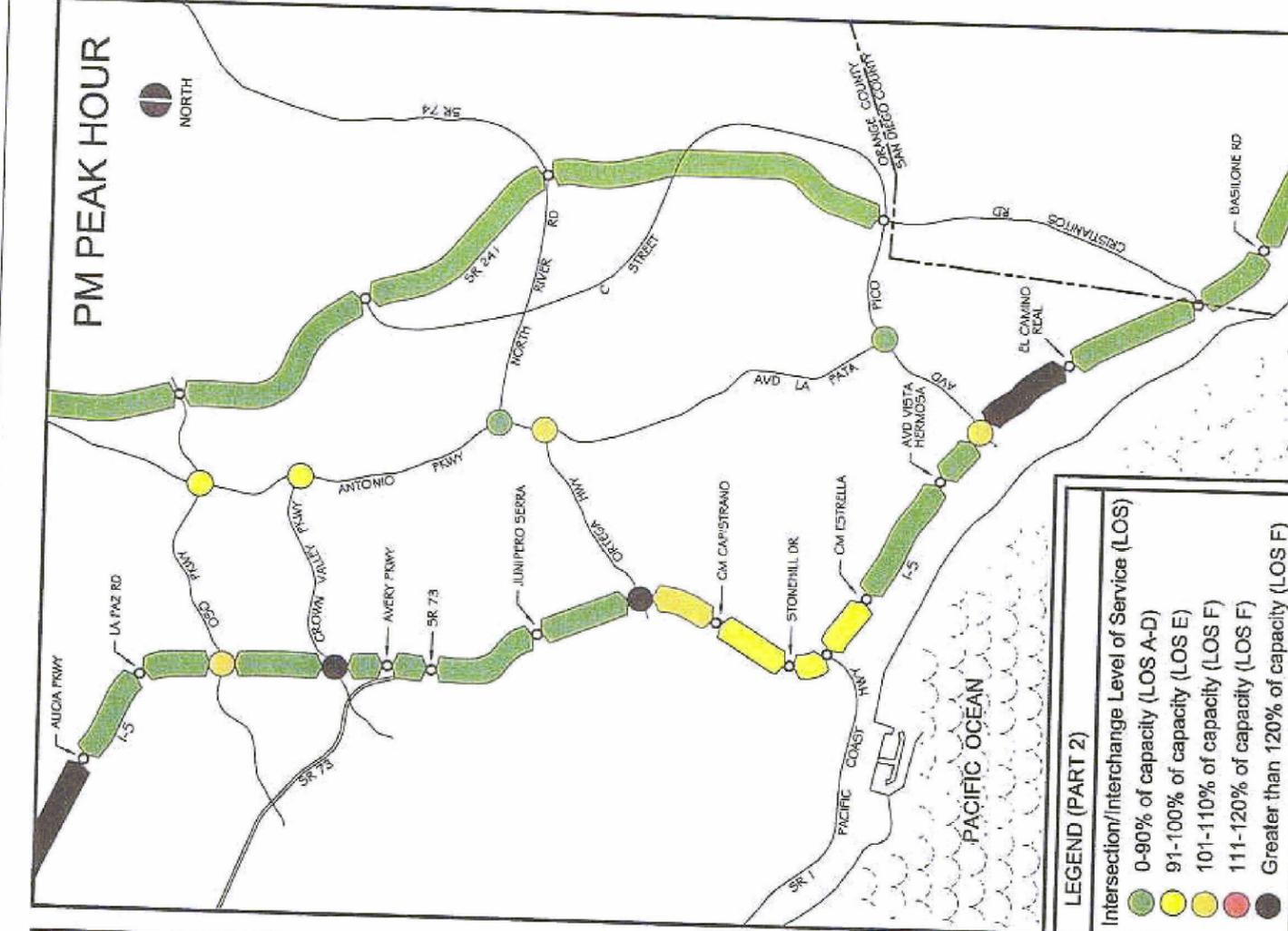
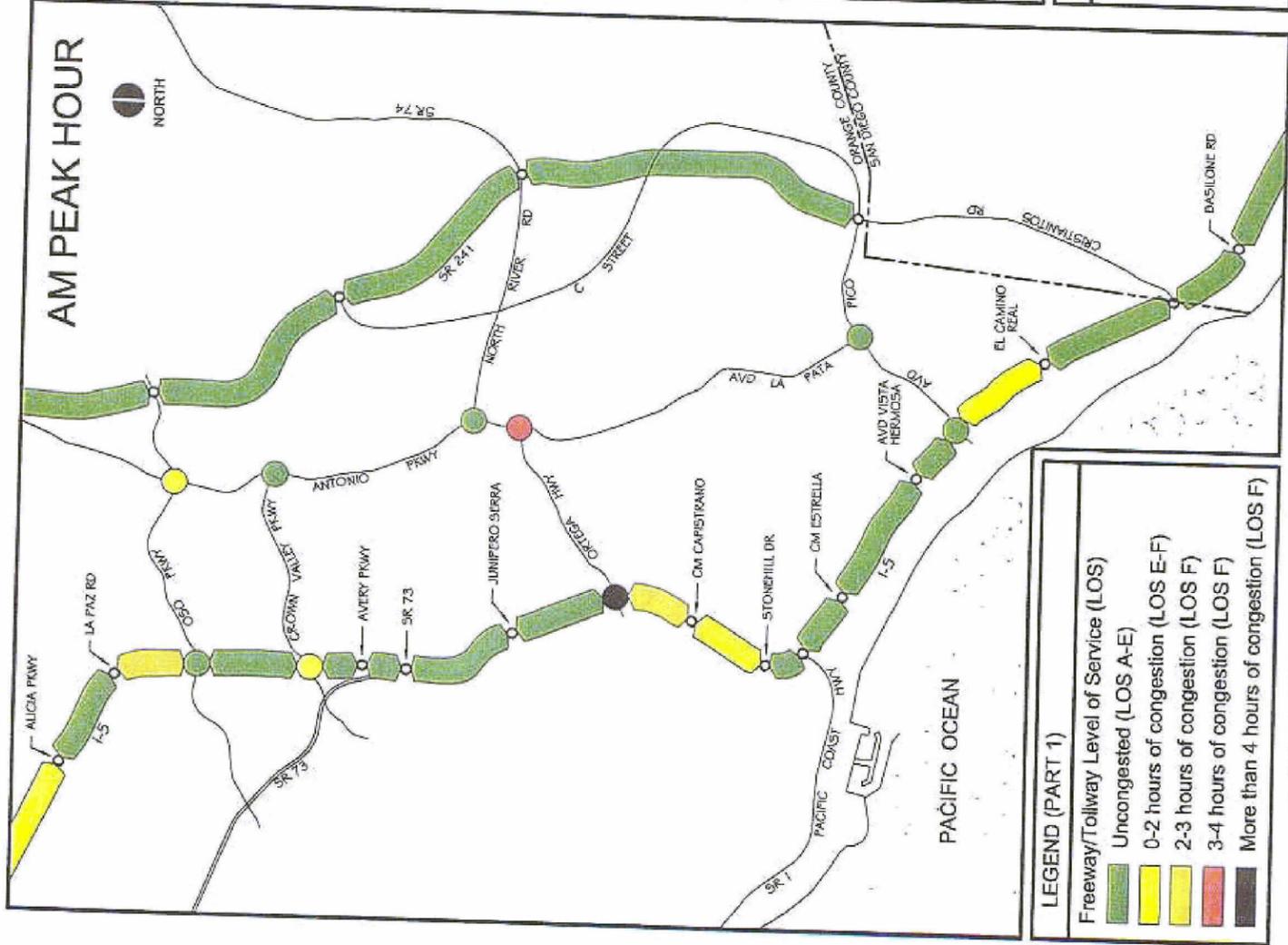
Figure ES-4



2025 Weekday Peak Hour Traffic Conditions - FEC-TV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIIP EIS/SEIR
 Traffic and Circulation Technical Report

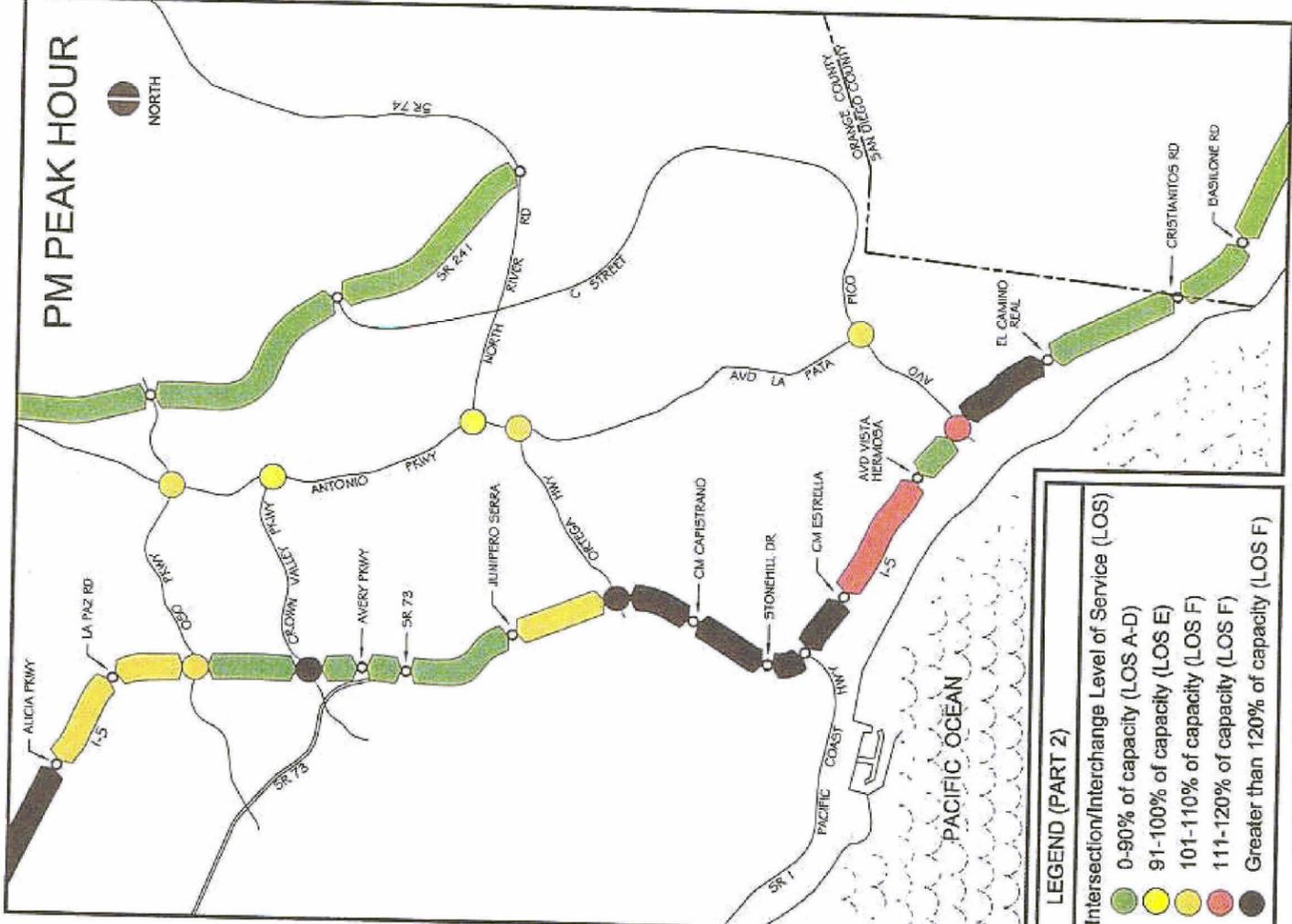
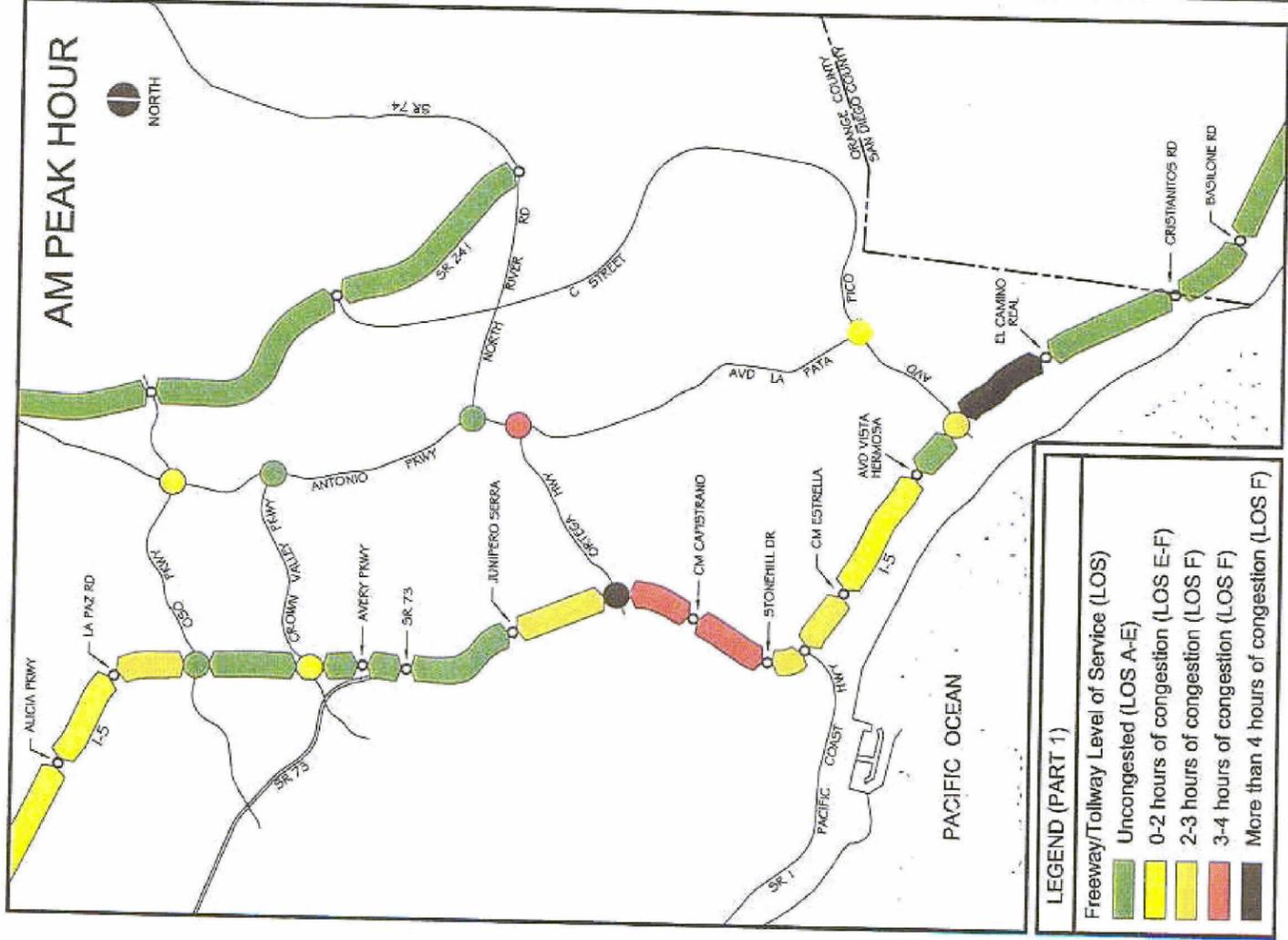
Figure ES-5



2025 Weekday Peak Hour Traffic Conditions - FEC-CV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

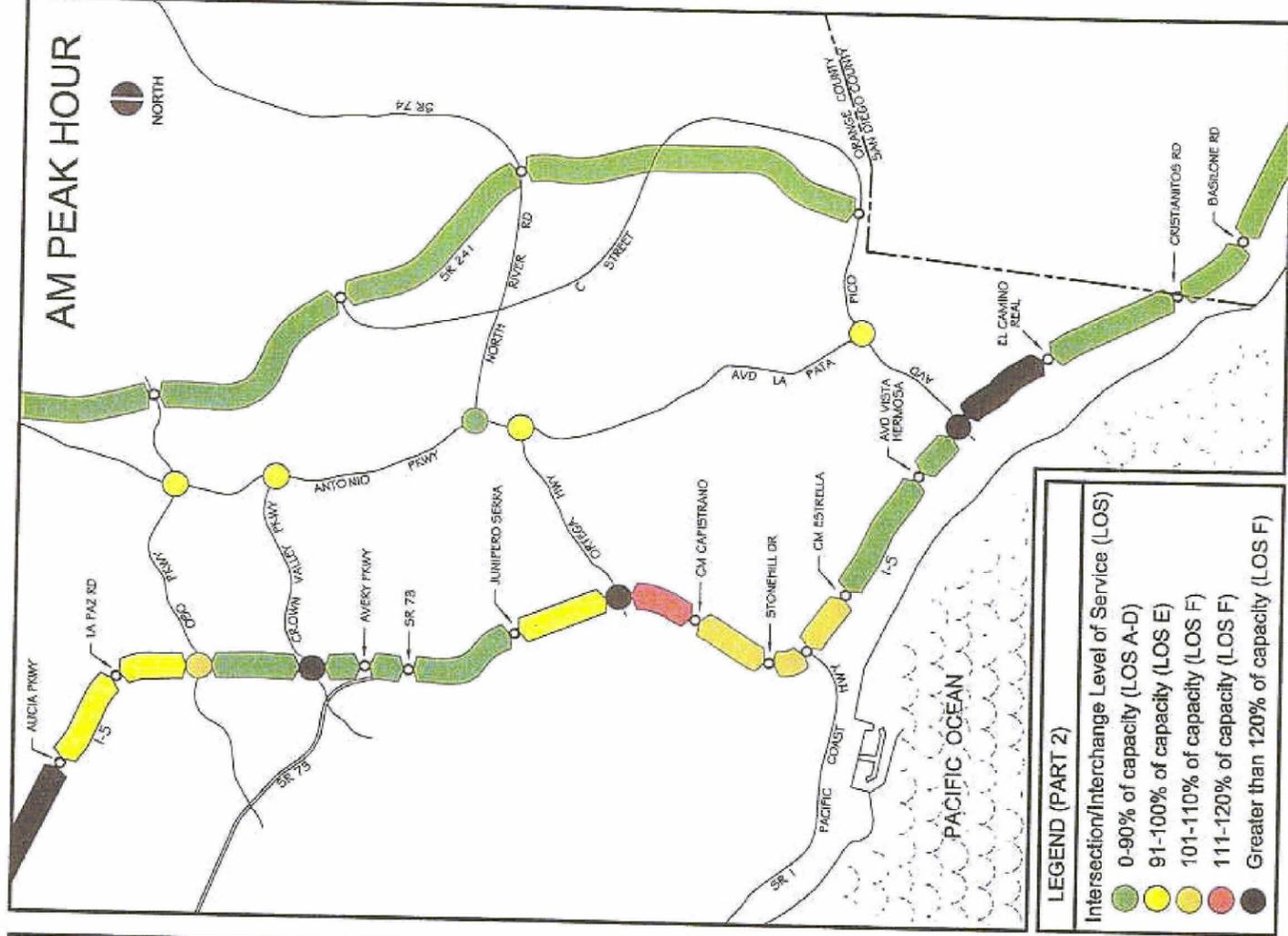
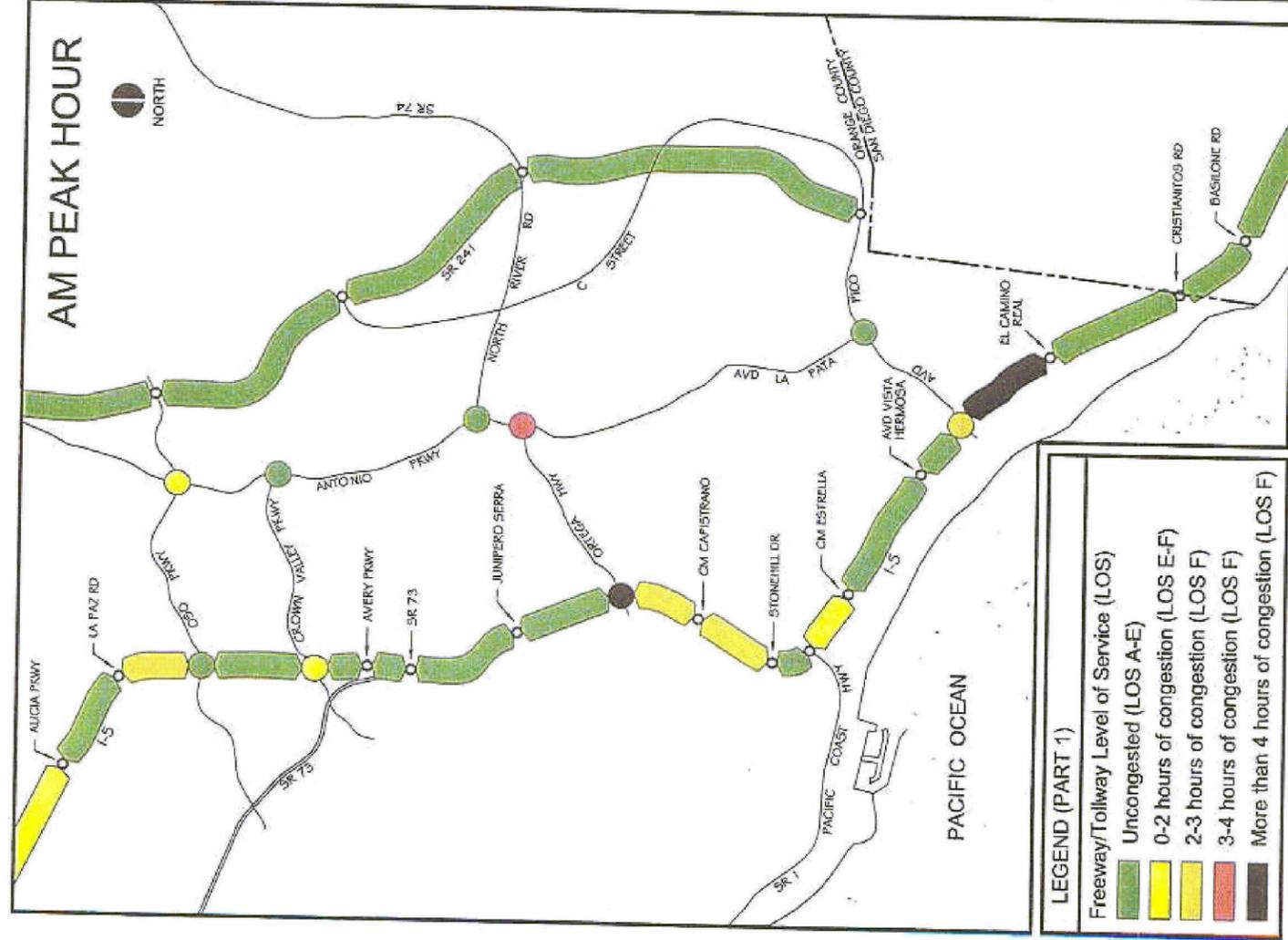
Figure ES-6



2025 Weekday Peak Hour Traffic Conditions - FEC-OHV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIIP EIS/SEIR
Traffic and Circulation Technical Report

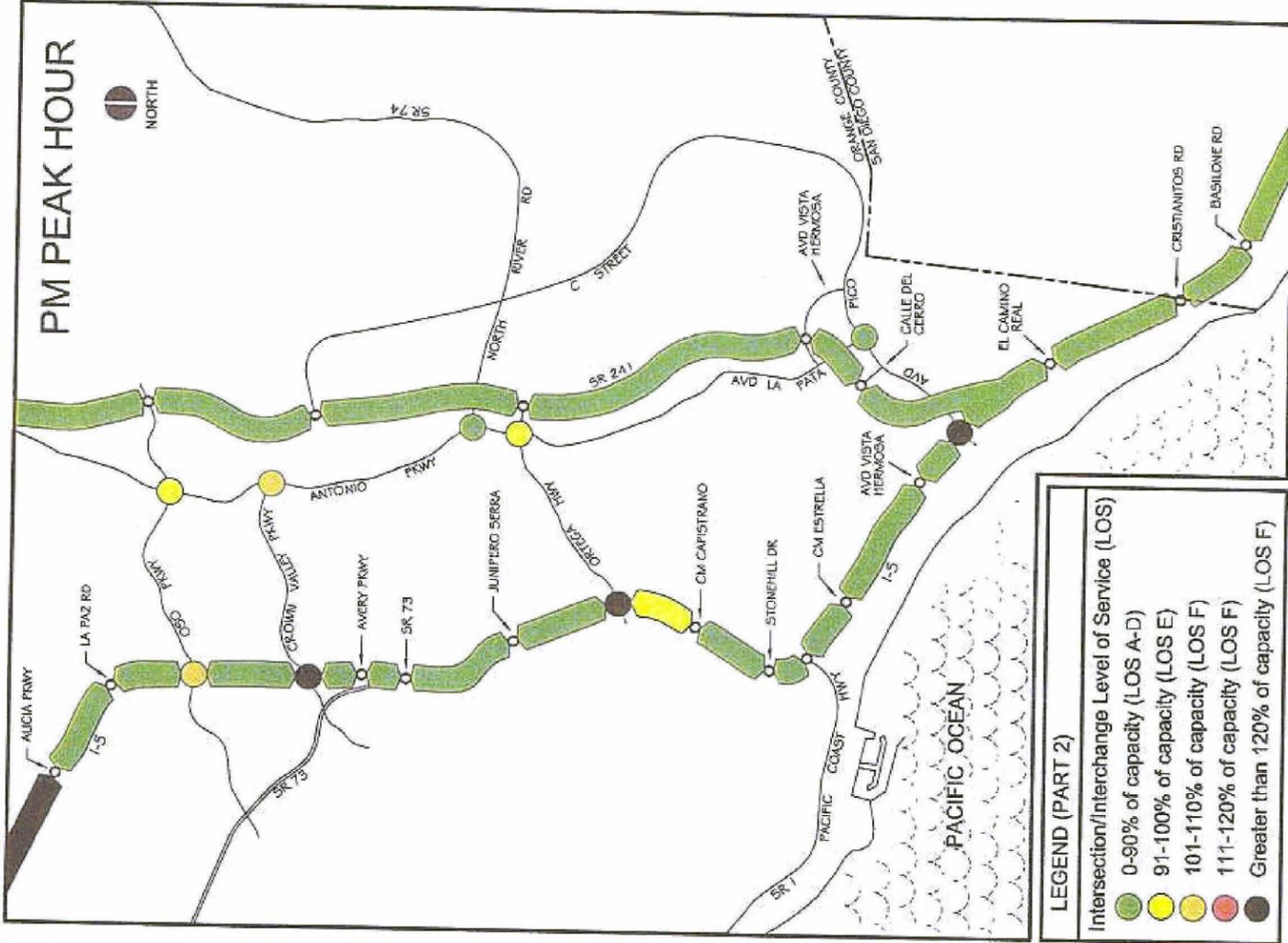
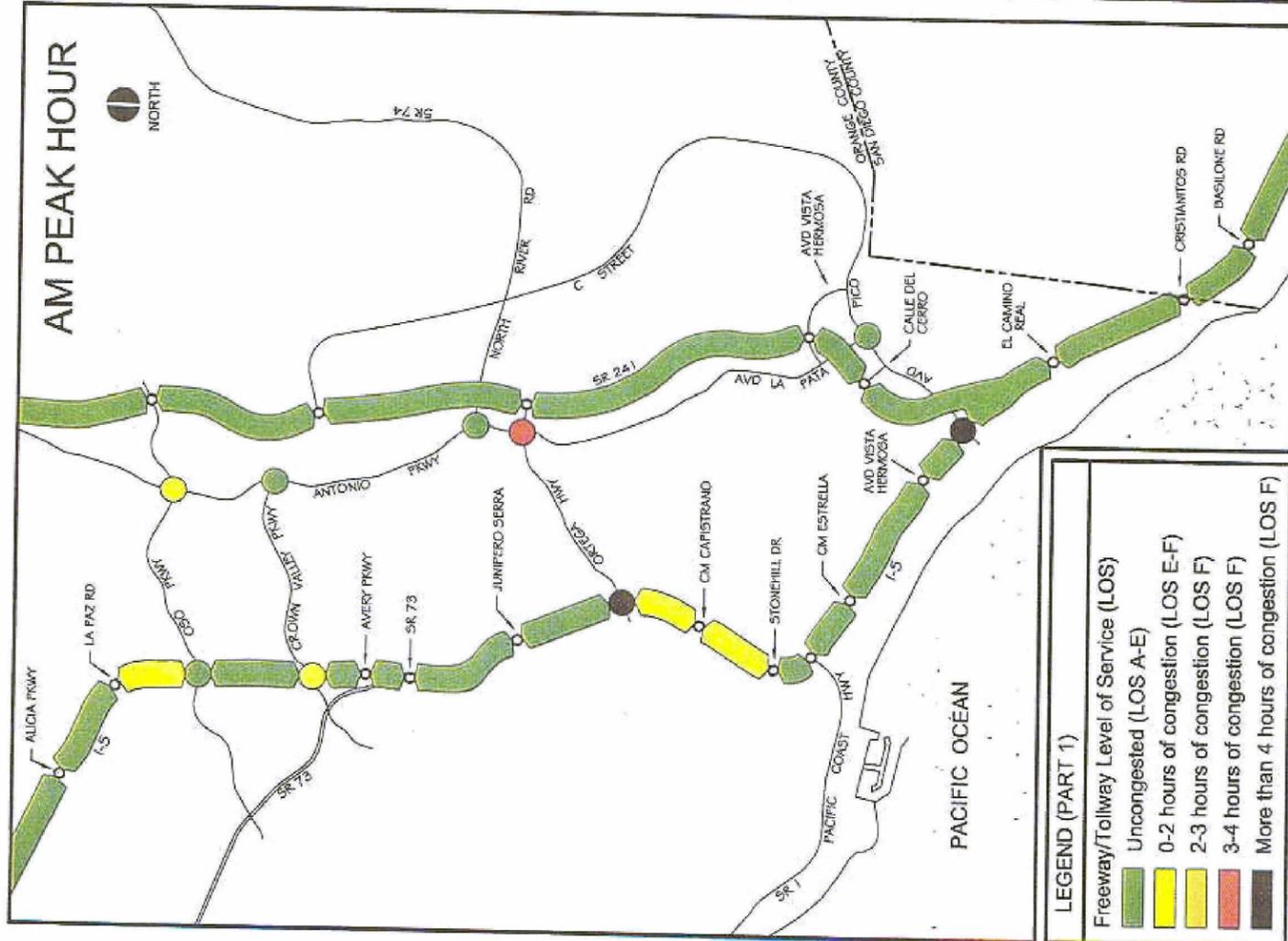
Figure ES-7



2025 Weekday Peak Hour Traffic Conditions - FEC-APV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

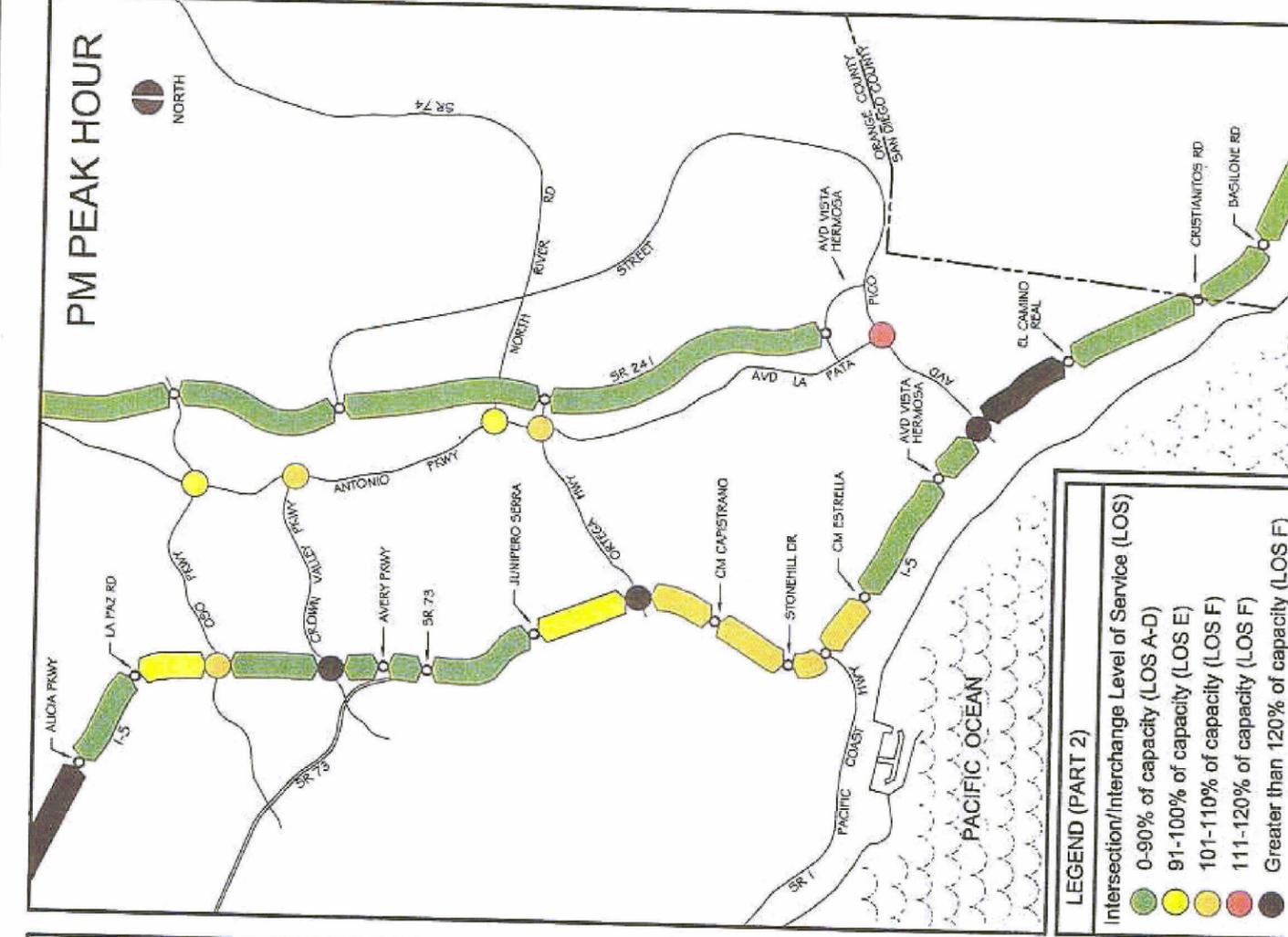
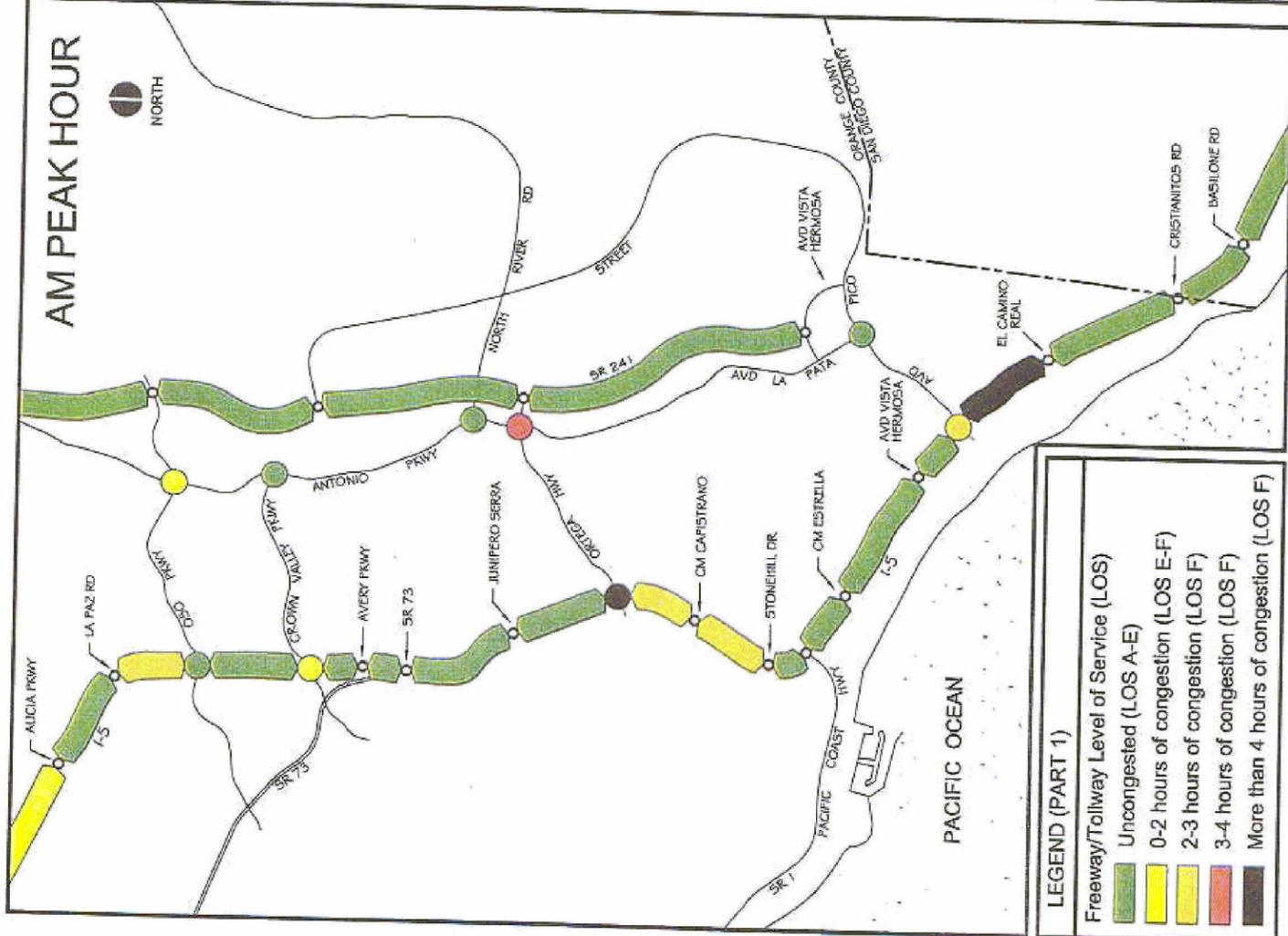
Figure ES-8



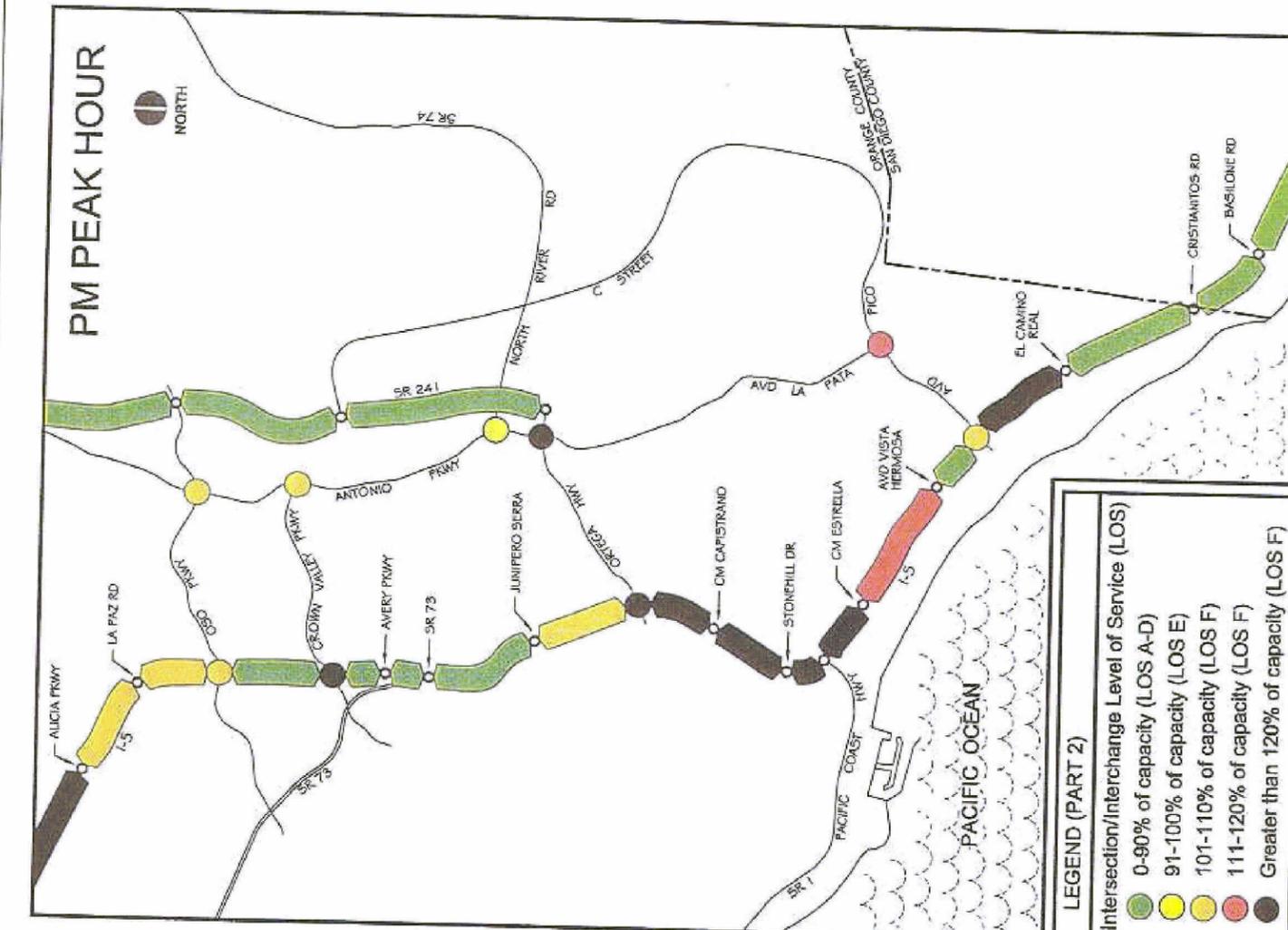
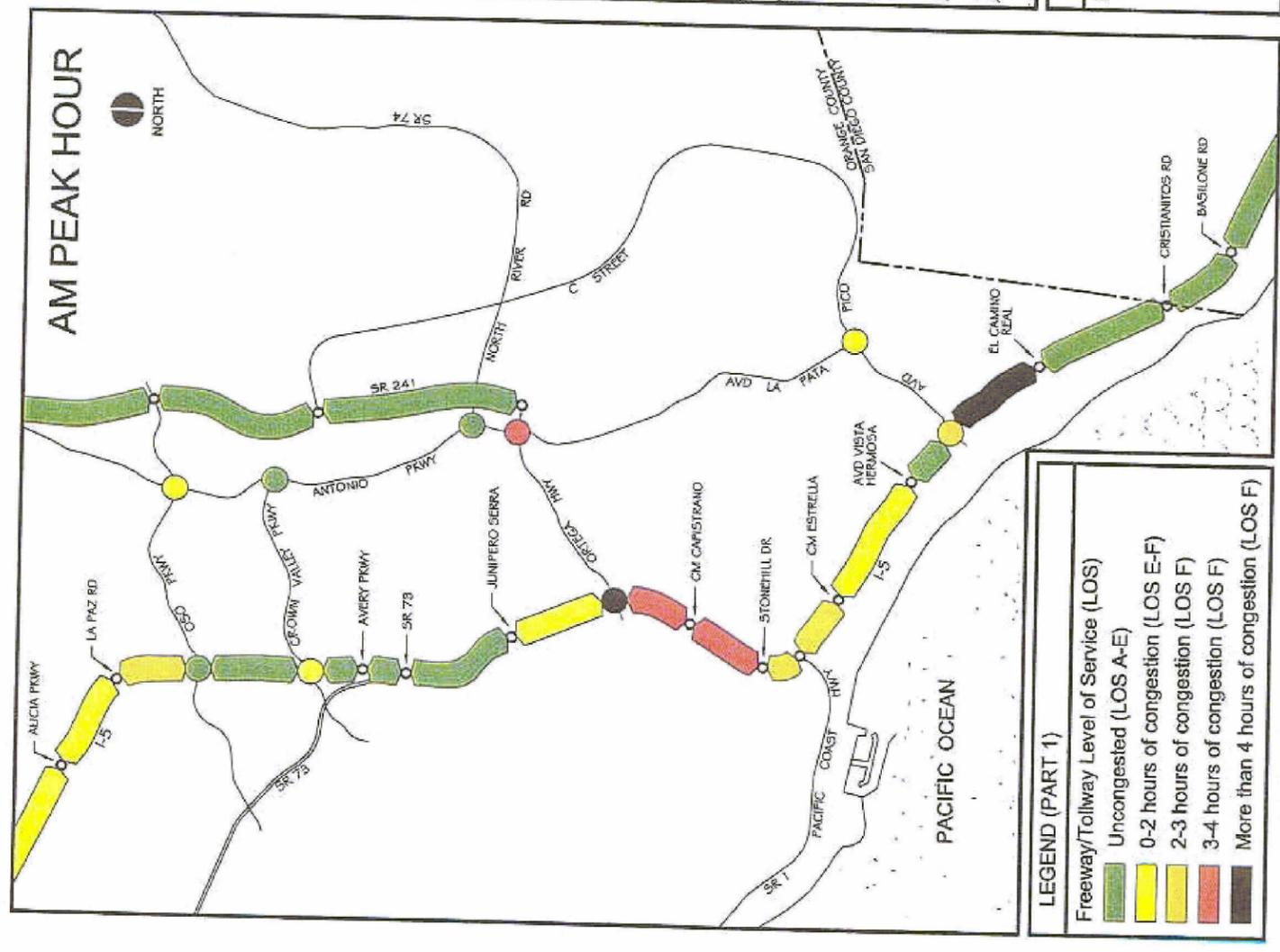
2025 Weekday Peak Hour Traffic Conditions - CC Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

Figure ES-9



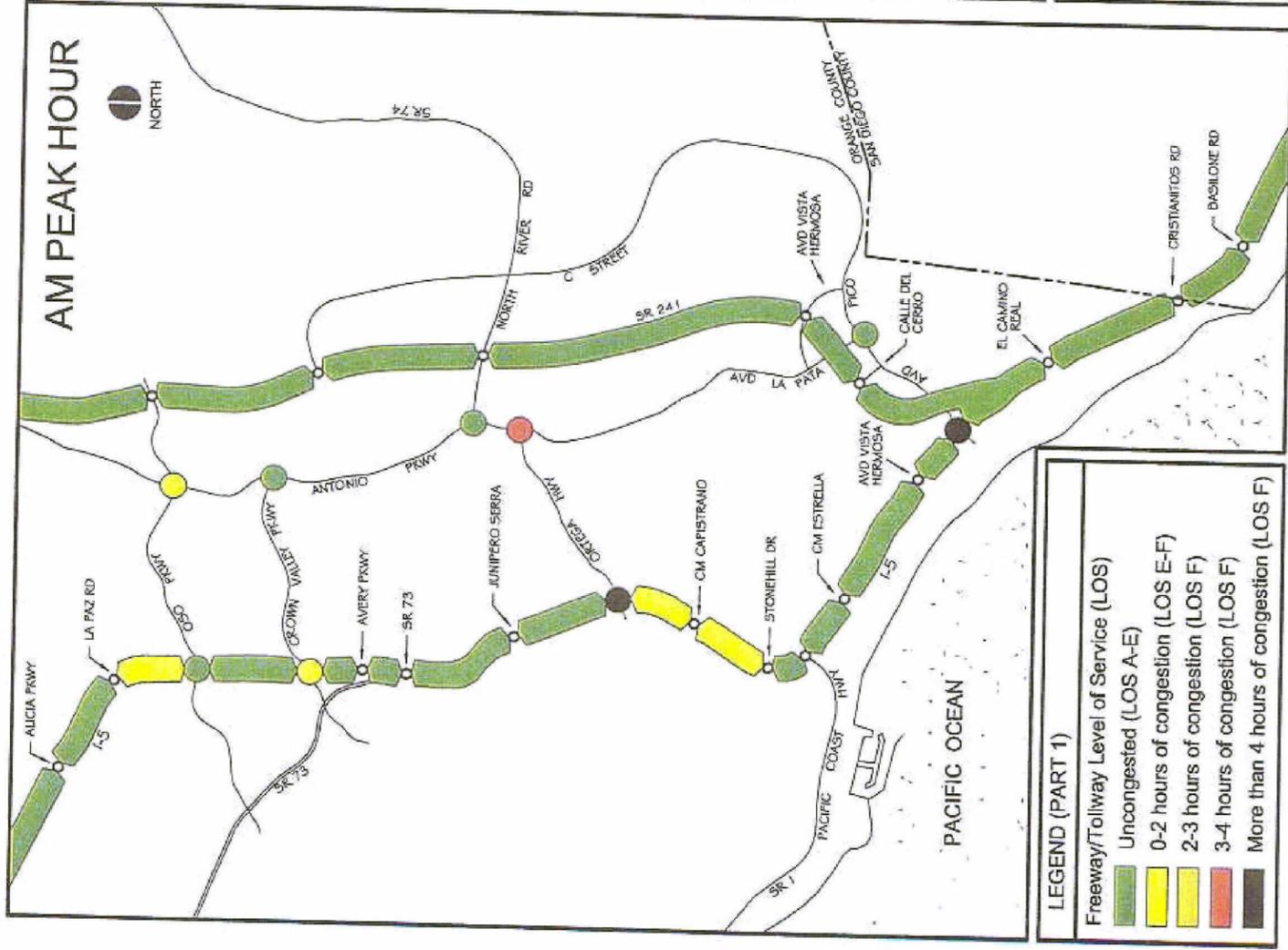
2025 Weekday Peak Hour Traffic Conditions - CC-ALPV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)



**2025 Weekday Peak Hour Traffic Conditions - CC-OHV Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)**

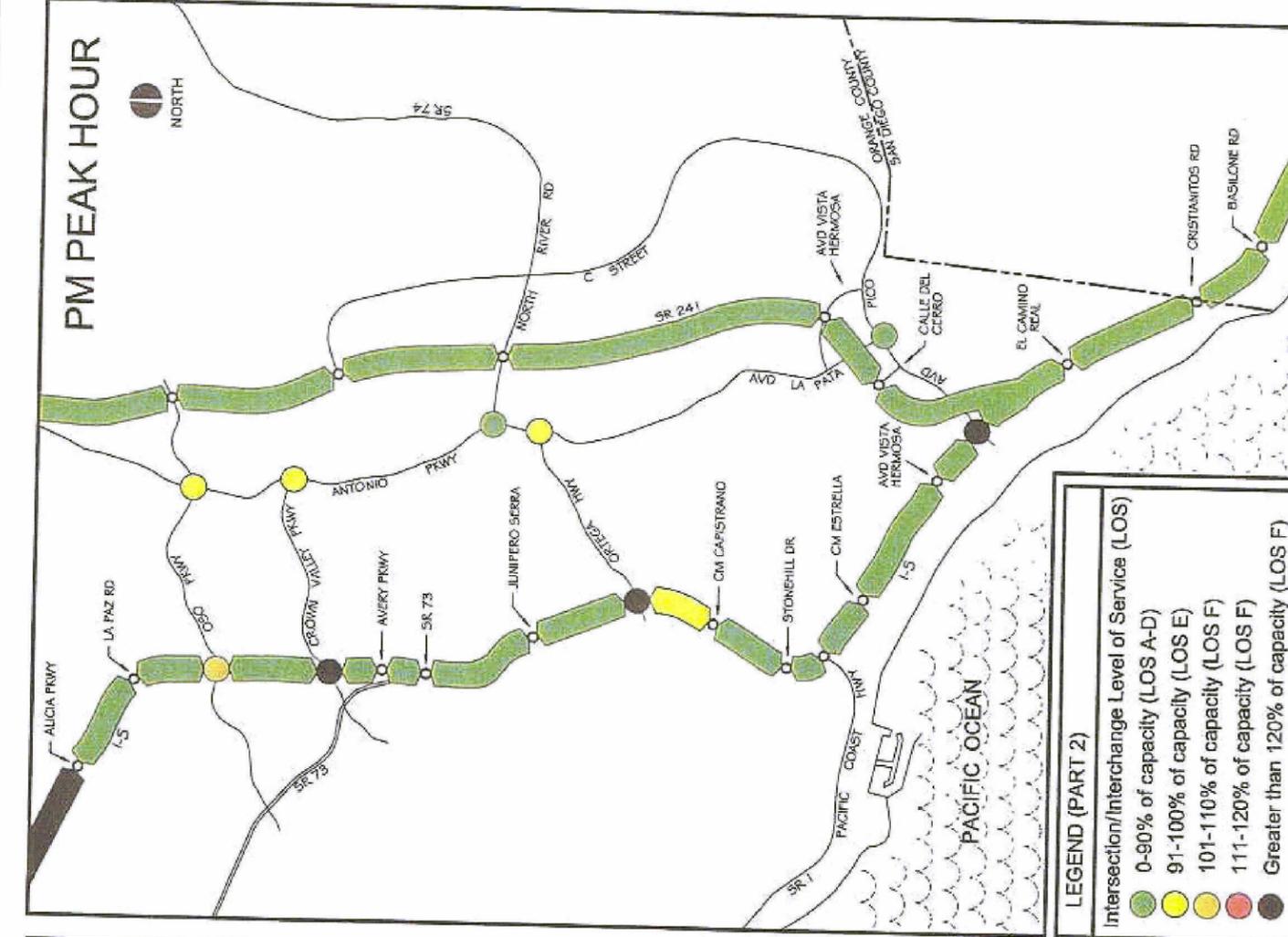
SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

Figure ES-11



LEGEND (PART 1)

Green	Freeway/Tollway Level of Service (LOS)
Light Green	Uncongested (LOS A-E)
Yellow	0-2 hours of congestion (LOS E-F)
Orange	2-3 hours of congestion (LOS F)
Red	3-4 hours of congestion (LOS F)
Dark Red	More than 4 hours of congestion (LOS F)



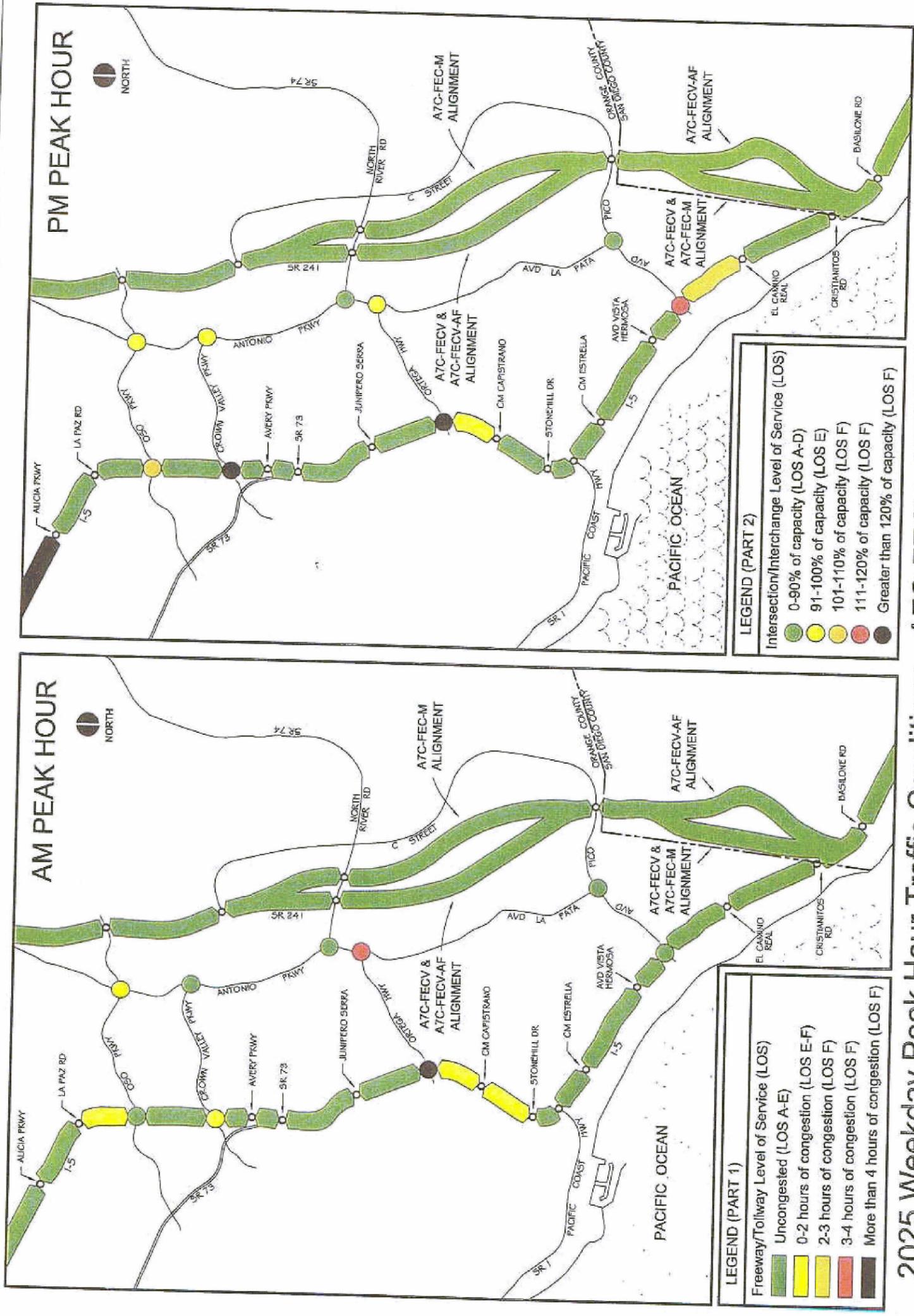
LEGEND (PART 2)

Green	0-90% of capacity (LOS A-D)
Light Green	91-100% of capacity (LOS E)
Yellow	101-110% of capacity (LOS F)
Orange	111-120% of capacity (LOS F)
Dark Red	Greater than 120% of capacity (LOS F)

2025 Weekday Peak Hour Traffic Conditions - A7C and A7C-7SV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIIP EIS/SEIR
Traffic and Circulation Technical Report

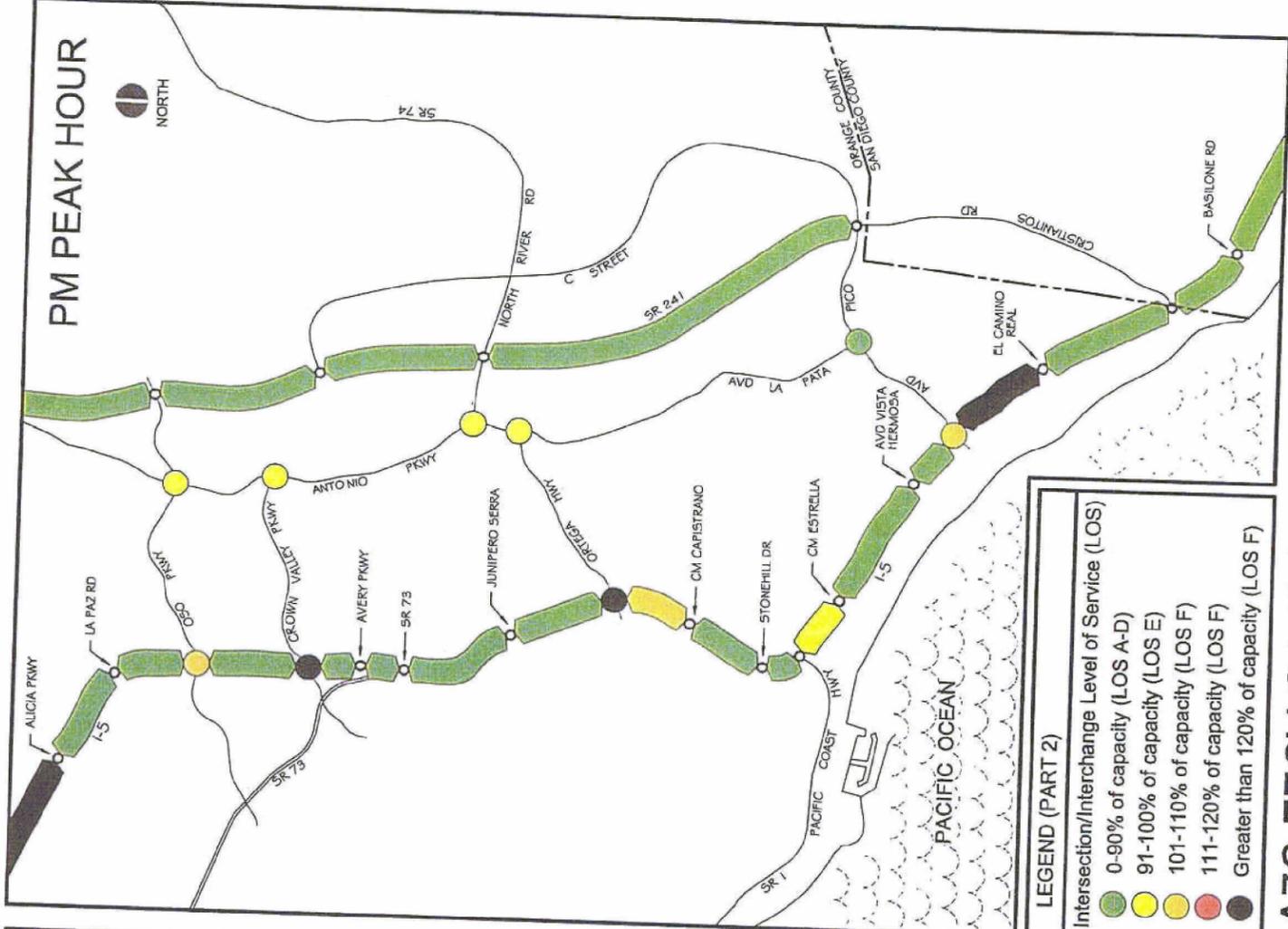
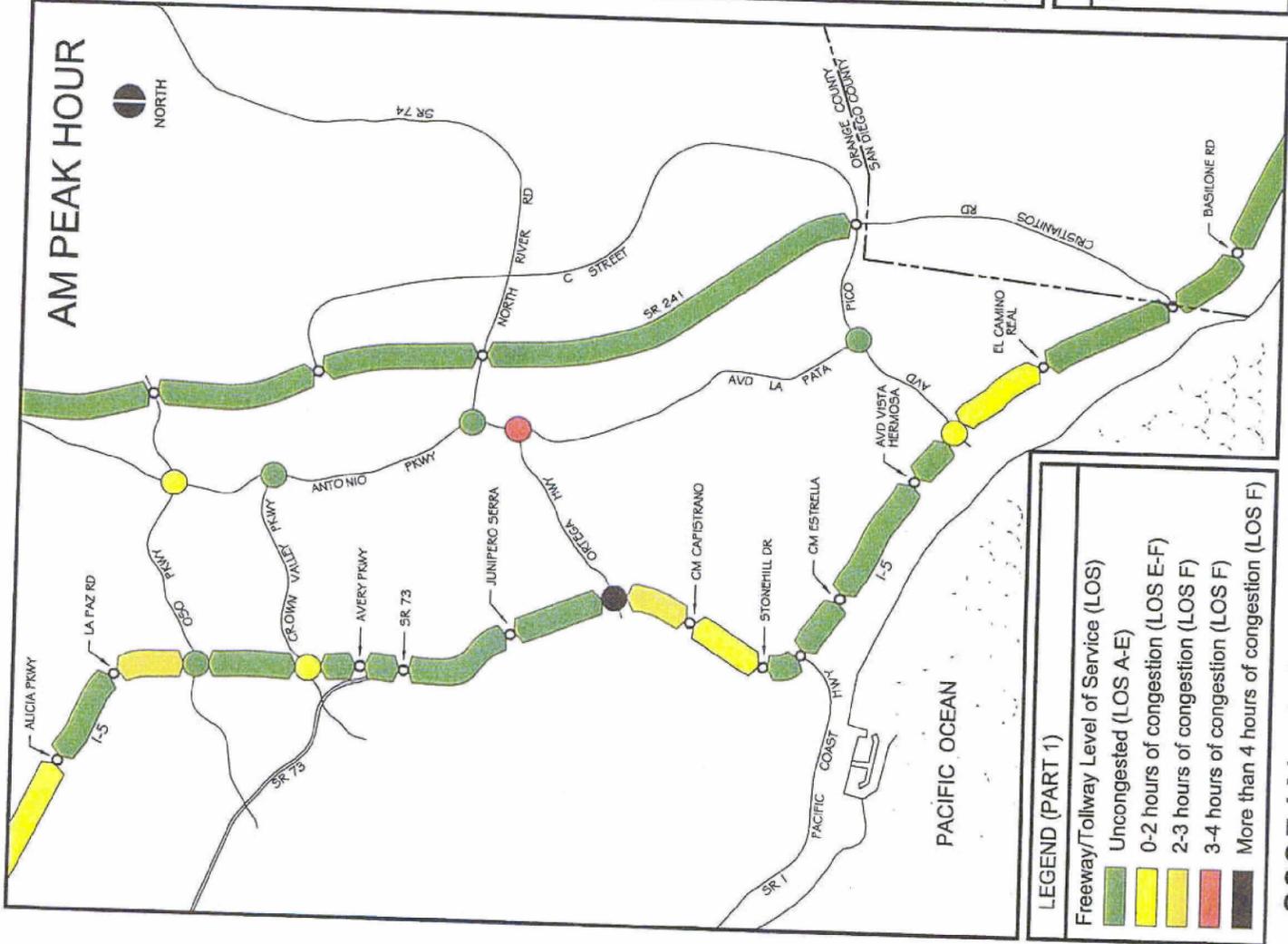
Figure ES-12



2025 Weekday Peak Hour Traffic Conditions - A7C-FECV, A7C-FECV-M and A7C-FECV-AF Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIIP EIS/SEIR
Traffic and Circulation Technical Report

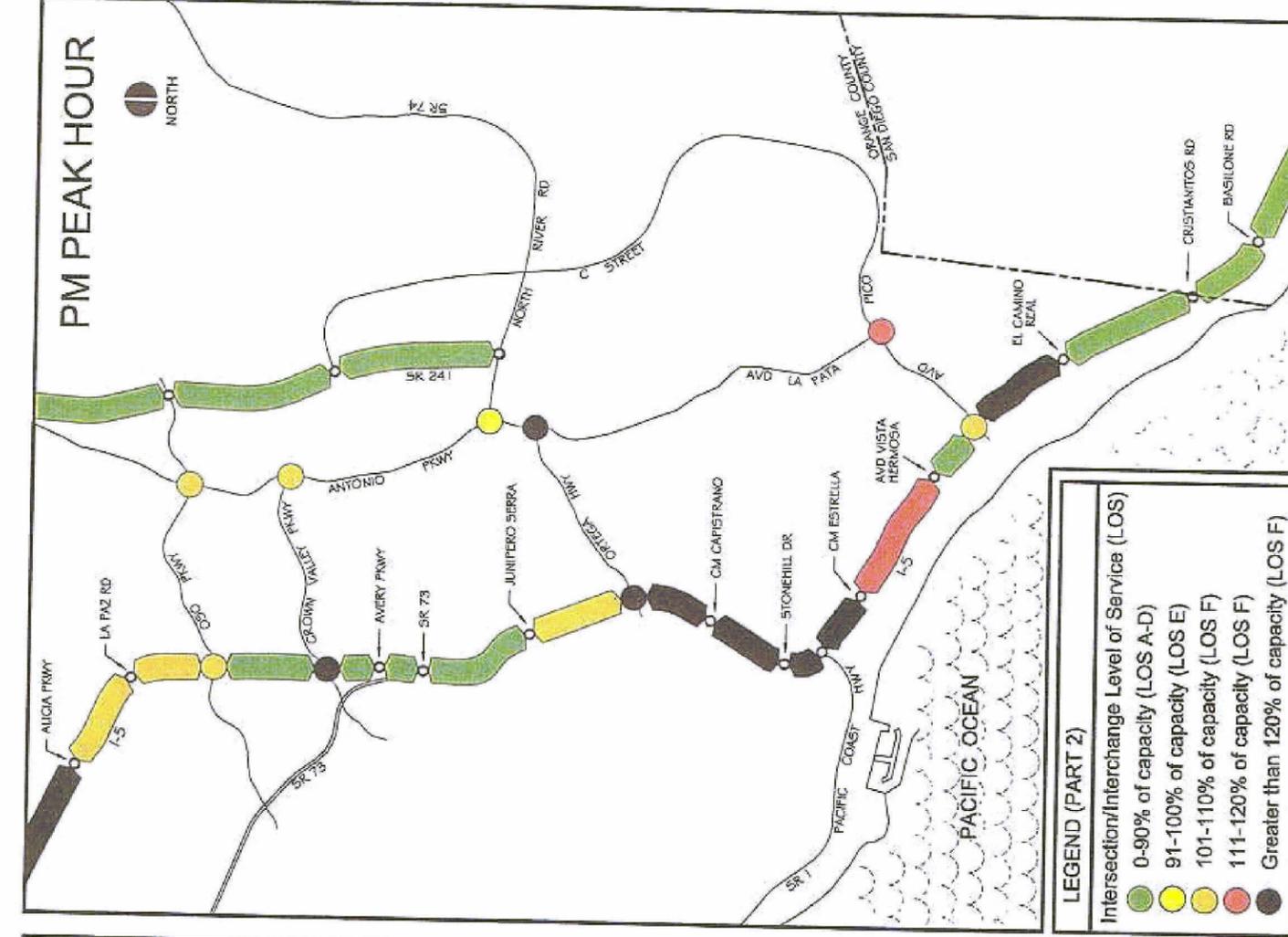
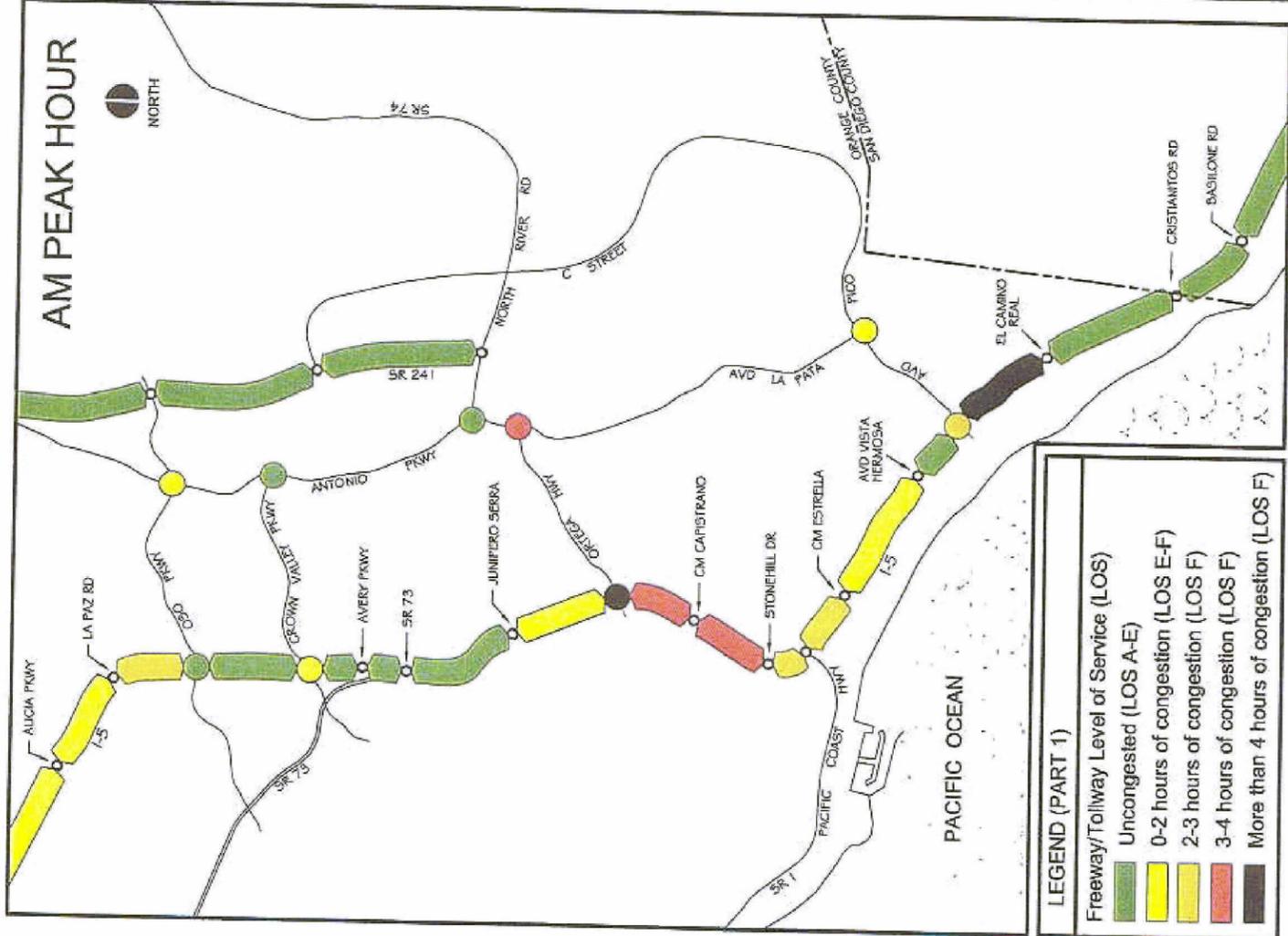
Figure ES-13



2025 Weekday Peak Hour Traffic Conditions - A7C-FECV-C Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

Figure ES-14



2025 Weekday Peak Hour Traffic Conditions - A7C-OHV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

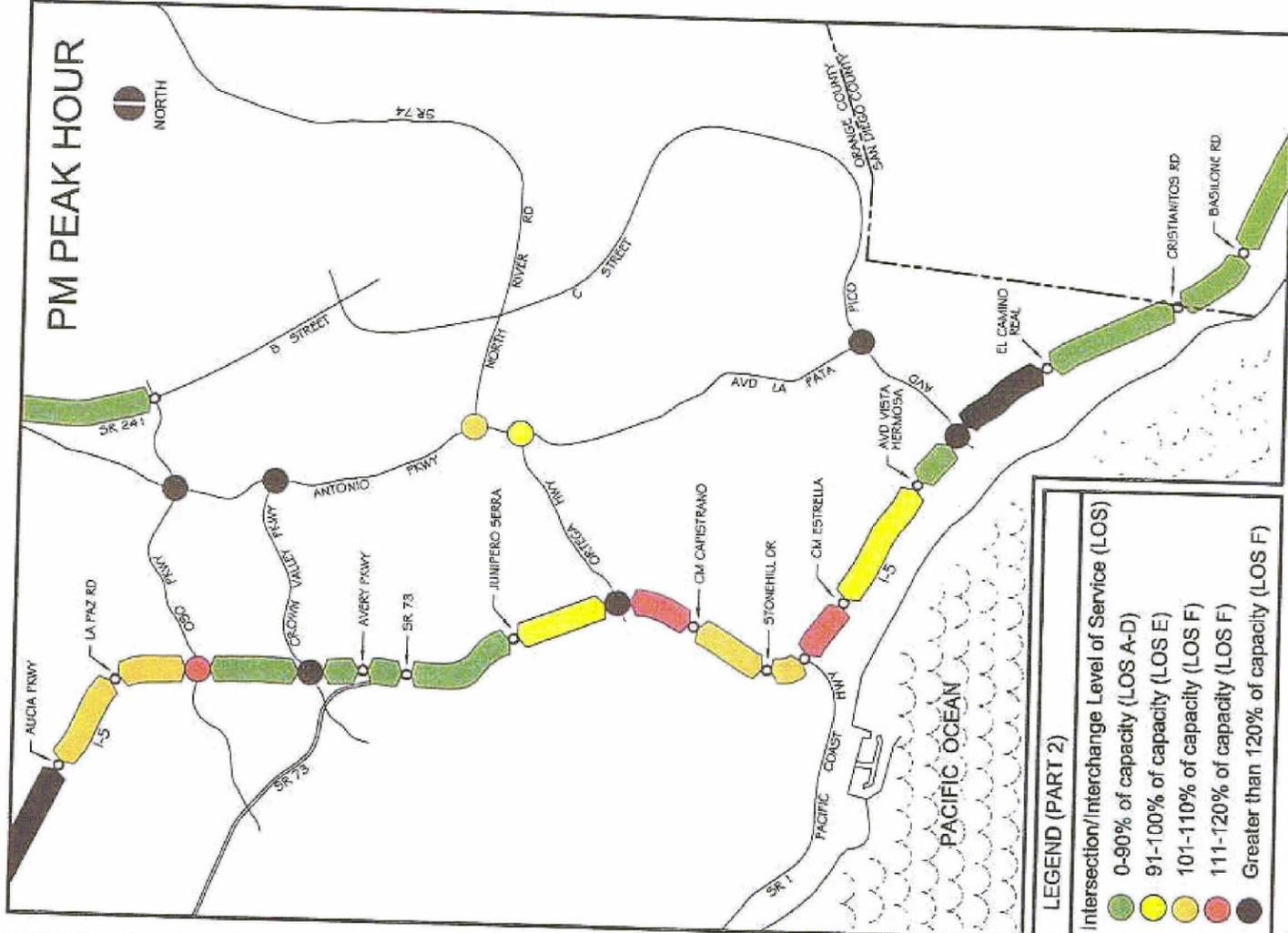
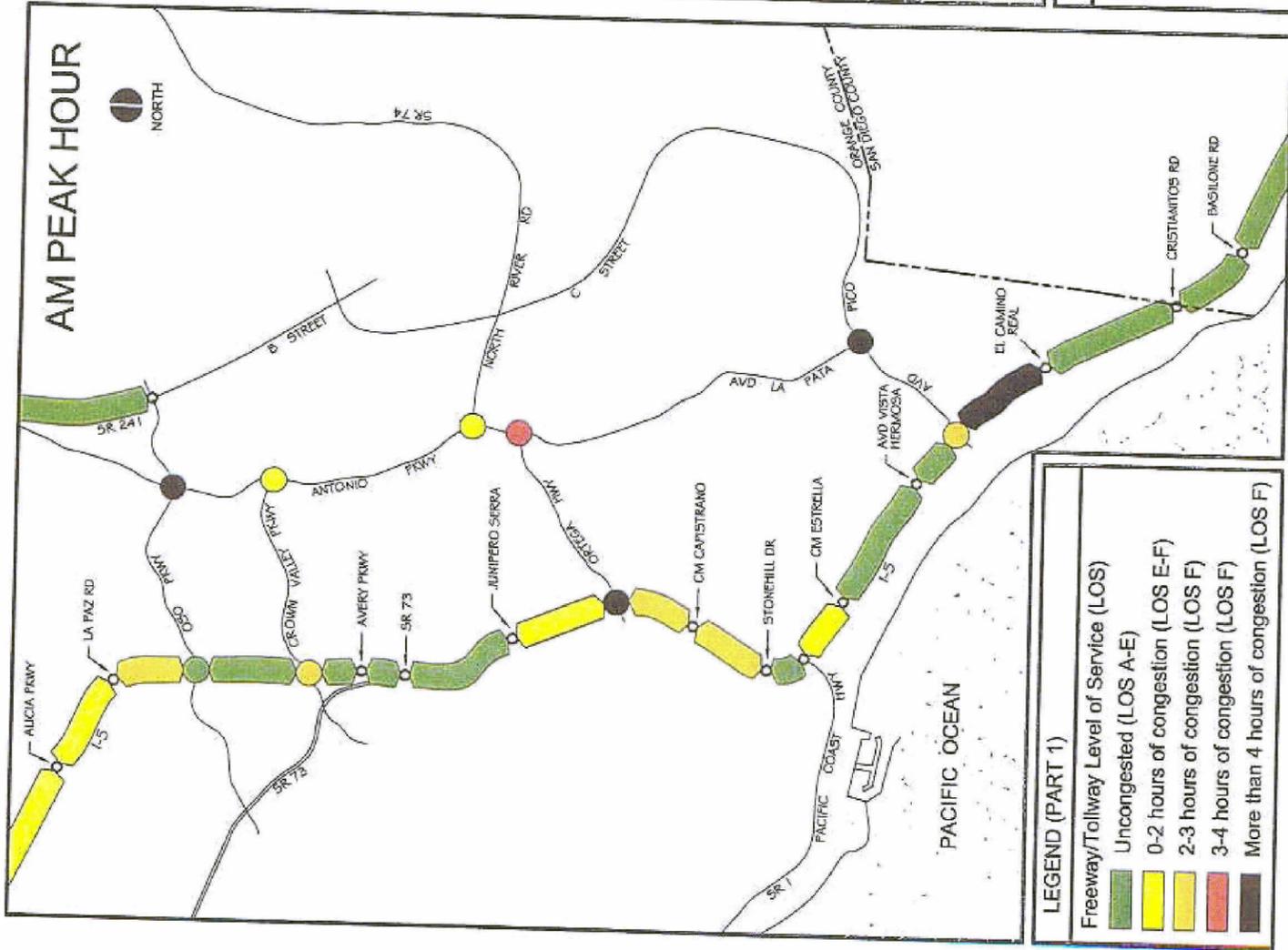
Figure ES-15



2025 Weekday Peak Hour Traffic Conditions - A7C-ALPV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

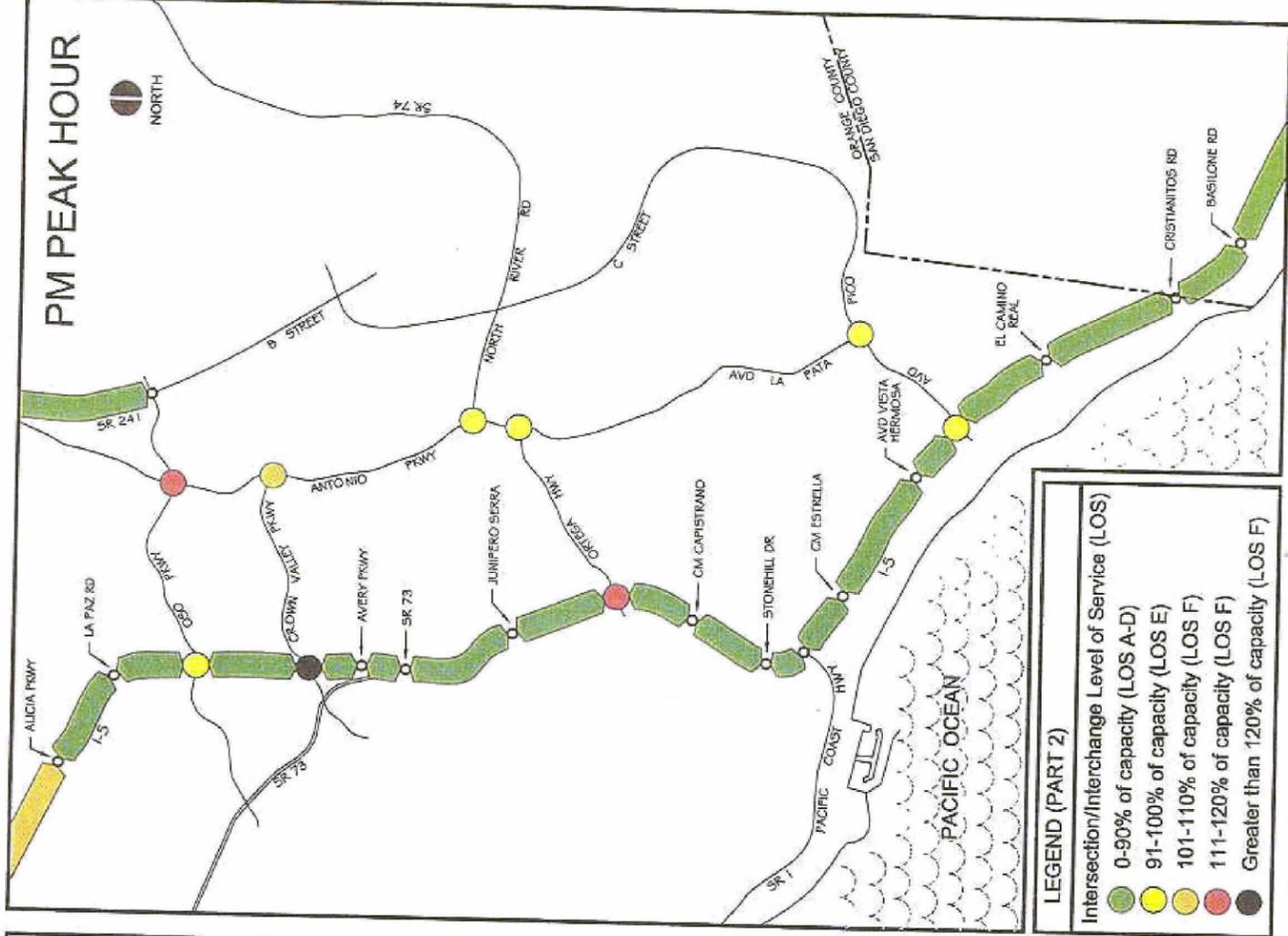
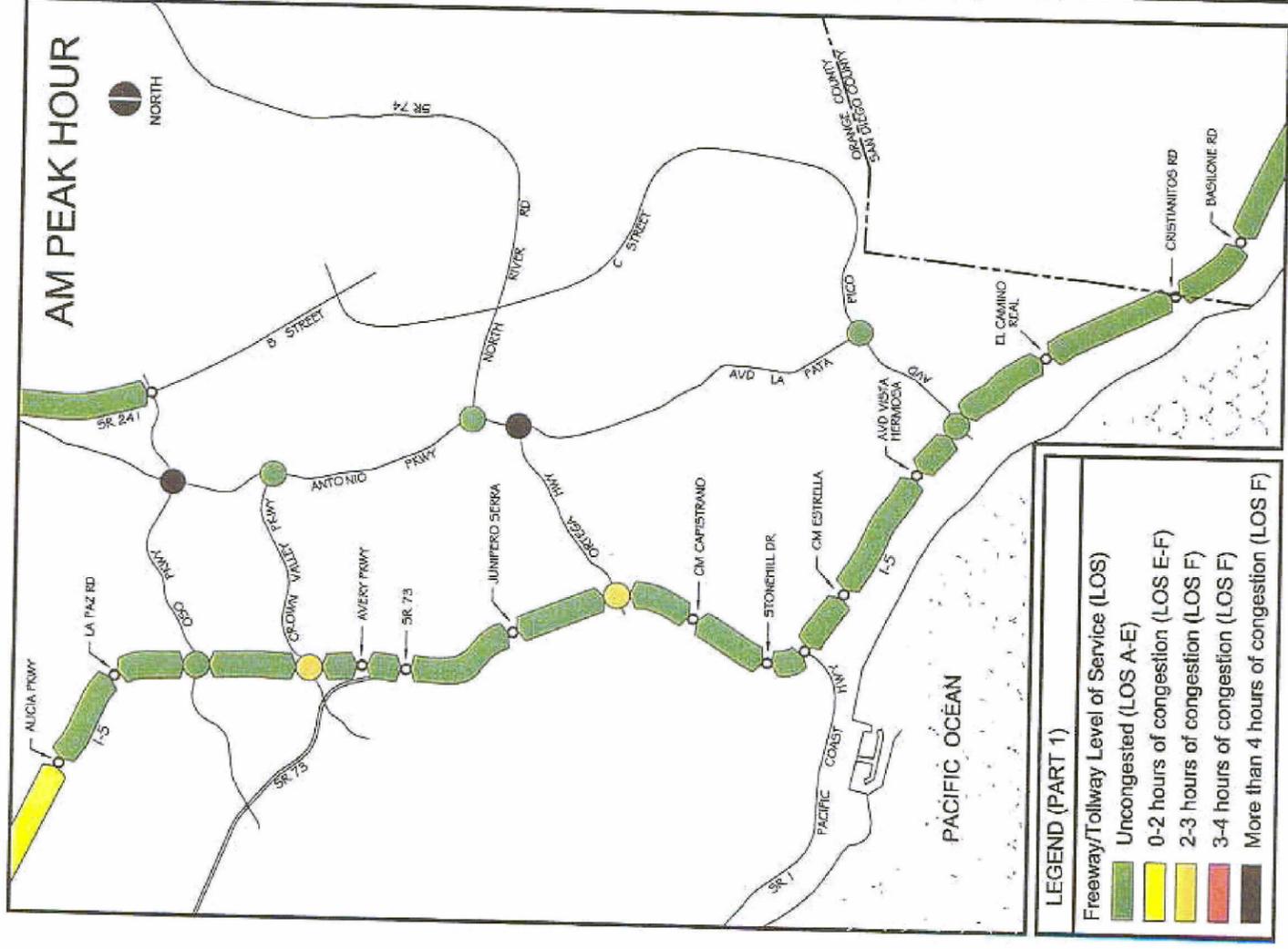
Figure ES-16



**2025 Weekday Peak Hour Traffic Conditions - AIO Alternative
(Buildout Circulation System with Proposed RMV Plan)**

SOCTIIP EIS/SEIR
Traffic and Circulation Technical Report

Figure ES-17



**2025 Weekday Peak Hour Traffic Conditions - I-5 Alternative
(Buildout Circulation System with Proposed RMV Plan)**

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

Figure ES-19

ES.5.4.3 Impact Assessment with Existing Conditions as the Baseline

The impact analysis for the Build Alternatives was conducted using two baseline scenarios; the existing baseline condition and the future planned baseline condition. The first baseline scenario utilizes the existing traffic conditions. The second baseline scenario represents the future planned conditions in 2025 under the No Action Alternative. This second baseline incorporates the existing and planned roadway improvements that are committed to be funded or are planned to be funded by 2025. Both of the baseline conditions are compared to the projected traffic conditions in 2025 with a Build Alternative. This comparative analysis evaluates the traffic on the existing traffic circulation system against the future projected traffic conditions with and without the project. This approach allows for the evaluation of the project impacts against both existing conditions and planned (and reasonably certain) future conditions.

This Section summarizes the impacts of the Build Alternatives when assessed against the existing baseline condition (i.e., existing traffic conditions). The “existing conditions baseline” analysis compares each of the SOCTIIP Build Alternatives that were advanced for detailed evaluation in the SOCTIIP EIS/SEIR to the existing traffic conditions discussed earlier in Section ES.5.2 (Existing Traffic Conditions). To ensure that buildout conditions are accurately portrayed, each Build Alternative was analyzed with appropriate land use and infrastructure assumptions. Impacts are assessed by comparing peak hour LOSs that would result from each Build Alternative with peak hour LOSs under existing conditions.

Detailed descriptions of weekday peak hour traffic conditions under the SOCTIIP Build Alternatives, assuming committed circulation system improvements and anticipated future land use, including the 14,000 du proposed RMV plan, (i.e., year 2025 Scenario 1) are provided in Section 4.2 (Long-Range Traffic Conditions). Table ES-6 summarizes the locations on the study area circulation system where weekday peak hour deficiencies occur under existing conditions and with each Build Alternative that was advanced for detailed evaluation in the SOCTIIP EIS/SEIR. The following summarizes the number of weekday peak hour deficiencies under existing conditions and under the Build Alternatives:

- Under existing conditions, deficiencies occur at three segments of I-5, 12 freeway/tollway ramps (nine I-5 ramps and three SR 241 ramps) and 10 intersections (six arterial-to-arterial and four arterial-to-freeway/tollway ramps).
- Under the build Alternatives that include the FTC-S toll road extension from Oso Parkway to I-5 with a Far East Corridor connection at I-5 (the FEC-M, FEC-W, and A7C-FEC-M Alternatives), deficiencies occur at eight segments of I-5, 15 freeway/tollway ramps (12 I-5 ramps and three SR 241 ramps) and 29 intersections (20 arterial-to-arterial and nine arterial-to-freeway/tollway ramps).
- Under the build Alternatives that include the FTC-S toll extension road from Oso Parkway to I-5 with a Central Corridor connection at I-5 (the CC Alternative), deficiencies occur at seven segments of I-5, 16 freeway/tollway ramps (13 I-5 ramps and three SR 241 ramps) and 27 intersections (18 arterial-to-arterial and nine arterial-to-freeway/tollway ramps).

Table ES-6

SUMMARY OF WEEKDAY PEAK HOUR DEFICIENCIES UNDER THE SOCTIP BUILD ALTERNATIVES WITH EXISTING CONDITIONS AS THE BASELINE

Location	Jurisdiction	Existing Conditions	Weekday Peak Hour Deficiency Under this Scenario?					I ₅	
			FEC-M & FEC-W	G	SOCTIP Build Alternatives (a)				AIO
					A7C-FEC-M	CC-ALPV &	A7C-ALPV		
INTERSECTIONS									
Alicia Pkwy & Muirlands Blvd	Mission Viejo	Yes	Yes	Yes	Yes	Yes	Yes		
Antonio Pkwy & Crown Valley Pkwy	County of Orange	No	Yes	Yes	Yes	Yes	Yes		
Antonio Pkwy & Oso Pkwy	County of Orange	No	Yes	Yes	Yes	Yes	Yes		
Antonio Pkwy-La Pata Ave & Ortega Hwy	County of Orange	Yes	Yes	Yes	Yes	Yes	Yes		
Antonio Pkwy & North River Rd	County of Orange	No	No	No	No	Yes	No		
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	No	No	No	No	Yes	Yes		
Avd Empresa & Santa Margarita Pkwy	Rancho Santa Margarita	No	Yes	Yes	Yes	Yes	Yes		
Avd La Pata & Avd Pico	San Clemente	No	No	No	No	Yes	No		
Avd La Pata & Avd Vista Hermosa	San Clemente	No	No	No	No	Yes	Yes		
Avd La Pata & Cm Del Rio	San Clemente	No	No	No	No	Yes	Yes		
Avd Talega & Avd Vista Hermosa	San Clemente	No	No	No	No	Yes	No		
Avd Vista Hermosa & Avd Pico	San Clemente	No	No	No	No	Yes	No		
Cabot Rd & Crown Valley Pkwy	Laguna Niguel	No	Yes	Yes	Yes	Yes	Yes		
Cabot Rd & Oso Pkwy	Laguna Hills	No	Yes	Yes	Yes	Yes	Yes		
Cm Capistrano & Del Obispo St	San Juan Capistrano	No	Yes	Yes	Yes	Yes	Yes		
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	No	No	No	No	Yes	Yes		
Cm Capistrano & San Juan Creek Rd	San Juan Capistrano	Yes	No	No	No	Yes	No		
Cm Capistrano & Stonehill Dr	San Juan Capistrano	Yes	Yes	Yes	Yes	Yes	Yes		
Cm Estrella & I-5 SB Ramps	Dana Point/San Clemente	No	No	No	No	Yes	Yes		
Cm Vera Cruz & Avd Vista Hermosa	San Clemente	No	Yes	Yes	Yes	Yes	Yes		
Del Obispo St & Stonehill Dr	Dana Point	Yes	Yes	Yes	Yes	Yes	Yes		
El Camino Real & Avd Pico	San Clemente	No	Yes	Yes	Yes	Yes	Yes		

Table ES-6 (cont) SUMMARY OF WEEKDAY PEAK HOUR DEFICIENCIES UNDER THE SOCTIP BUILD ALTERNATIVES WITH EXISTING CONDITIONS AS THE BASELINE									
Location	Jurisdiction	Existing Conditions	Weekday Peak Hour Deficiency Under this Scenario?					I ₂	
			FEC-M & FEC-W	CC	A7C-FEC-M	CC-ALPV & A7C-ALPV	AIO		
INTERSECTIONS (cont)									
Felipe Rd & Oso Pkwy	Mission Viejo	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Forbes Rd & Crown Valley Pkwy	Laguna Niguel	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
I-5 NB ramps & Avd Pico	San Clemente	No	No	Yes	No	Yes	Yes	Yes	No
I-5 SB ramps & Avd Pico	San Clemente	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
I-5 NB Ramps & Avery Pkwy	Mission Viejo	No	Yes	Yes	Yes	Yes	Yes	Yes	No
I-5 SB Ramps & Avery Pkwy	Mission Viejo	No	Yes	Yes	Yes	Yes	Yes	Yes	No
I-5 NB Ramps & Ortega Hwy	San Juan Capistrano	No	Yes	Yes	Yes	Yes	No	No	No
I-5 SB Ramps & Ortega Hwy	San Juan Capistrano	No	Yes	Yes	Yes	Yes	Yes	Yes	No
I-5 NB Ramps & Oso Pkwy	Mission Viejo	No	No	No	No	No	No	No	Yes
La Novia Ave & Ortega Hwy	San Juan Capistrano	No	No	No	No	No	Yes	Yes	Yes
La Novia Ave & San Juan Creek Rd	San Juan Capistrano	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marguerite Pkwy & Crown Valley Pkwy	Mission Viejo	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Marguerite Pkwy & La Paz Pkwy	Mission Viejo	No	No	No	No	No	Yes	Yes	No
Marguerite Pkwy & Oso Pkwy	Mission Viejo	Yes	No	No	No	No	No	No	No
Rancho Viejo Rd & Ortega Hwy	San Juan Capistrano	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SR 241 NB ramps & Antonio Pkwy	Rancho Santa Margarita	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SR 241 NB ramps & Santa Margarita Pkwy	Rancho Santa Margarita	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SR 241 SB ramps & Santa Margarita Pkwy	Rancho Santa Margarita	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SR 241 NB ramps & Oso Pkwy	Rancho Santa Margarita	No	No	No	No	No	No	Yes	Yes
SR 241 SB ramps & Oso Pkwy	Rancho Santa Margarita	No	No	No	No	No	No	Yes	Yes
St of the Golden Lantern & Paseo de Colinas	Laguna Niguel	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Trabuco Rd & Alicia Pkwy	Mission Viejo	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table ES-6 (cont)
SUMMARY OF WEEKDAY PEAK HOUR DEFICIENCIES UNDER THE SOCTIIP BUILD ALTERNATIVES
WITH EXISTING CONDITIONS AS THE BASELINE

Location	Jurisdiction	Existing Conditions	Weekday Peak Hour Deficiency Under this Scenario?					IS
			SOCTIIP Build Alternatives (a)					
			FEC-M & FEC-W	CC	A7C-FEC-M	CC-ALPV & A7C-ALPV	AIO	
INTERSECTIONS (cont)								
Valle Rd & San Juan Creek Rd	San Juan Capistrano	Yes	Yes	Yes	Yes	Yes	Yes	
Valle Rd & I-5 NB Ramps	San Juan Capistrano	No	No	No	No	No	Yes	
FREEWAY (I-5) MAINLINE SEGMENTS								
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans	Yes	No	No	No	No	Yes	
I-5 (Avd Pico to El Camino Real)	Caltrans	No	Yes	No	No	No	No	
I-5 (Avd Vista Hermosa to Avd Pico)	Caltrans	No	No	No	No	No	No	
I-5 (Cm Capistrano to Stonehill Dr)	Caltrans	No	Yes	Yes	Yes	Yes	No	
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans	No	Yes	Yes	Yes	Yes	No	
I-5 (El Toro Rd to Alicia Pkwy)	Caltrans	Yes	Yes	Yes	Yes	Yes	Yes	
I-5 (Junipero Serra Ro to Ortega Hwy)	Caltrans	No	No	No	No	No	No	
I-5 (Lake Forest Dr to El Toro Rd)	Caltrans	No	Yes	Yes	Yes	Yes	No	
I-5 (La Paz Rd to Oso Pkwy)	Caltrans	Yes	Yes	Yes	Yes	Yes	No	
I-5 (Ortega Hwy to Cm Capistrano)	Caltrans	No	Yes	Yes	Yes	Yes	No	
I-5 (SR 1/Cm Las Ramblas to Cm Estrella)	Caltrans	No	Yes	Yes	Yes	Yes	No	
I-5 (Stonehill Dr to SR 1/Cm Las Ramblas)	Caltrans	No	No	No	No	No	No	
FREEWAY/TOLLWAY RAMPS								
I-5 NB direct on-ramp at Alicia Pkwy	Caltrans	Yes	No	No	No	No	No	
I-5 NB loop on-ramp at Alicia Pkwy	Caltrans	No	Yes	Yes	Yes	Yes	Yes	
I-5 NB off-ramp at Avd Pico	Caltrans	No	No	No	No	No	No	
I-5 NB on-ramp at Avd Pico	Caltrans	Yes	Yes	Yes	Yes	Yes	Yes	
I-5 SB off-ramp at Avd Pico	Caltrans	Yes	No	No	No	No	No	
I-5 SB on-ramp at Avd Pico	Caltrans	No	No	No	No	Yes	No	
I-5 NB direct on-ramp at Avd Vista Hermosa	Caltrans	No	No	No	No	No	Yes	

Table ES-6 (cont)
 SUMMARY OF WEEKDAY PEAK HOUR DEFICIENCIES UNDER THE SOCTIIP BUILD ALTERNATIVES
 WITH EXISTING CONDITIONS AS THE BASELINE

Location	Jurisdiction	Existing Conditions	Weekday Peak Hour Deficiency Under this Scenario?					IS
			SOCTIIP Build Alternatives (a)					
			FEC-M & FEC-W	CC	A7C-FEC-M	CC-ALPV & A7C-ALPV	AIO	
FREEWAY/TOLLWAY RAMPS (cont)								
I-5 SB off-ramp at Avd Vista Hermosa	Caltrans	No	Yes	Yes	Yes	Yes	No	Yes
I-5 SB off-ramp at Cm Capistrano	Caltrans	No	Yes	Yes	Yes	Yes	No	No
I-5 SB off-ramp at Cm Estrella	Caltrans	Yes	No	No	No	No	No	No
I-5 NB direct on-ramp at Crown Valley Pkwy	Caltrans	No	Yes	Yes	Yes	Yes	Yes	Yes
I-5 SB off-ramp at Crown Valley Pkwy	Caltrans	Yes	Yes	Yes	Yes	Yes	Yes	Yes
I-5 NB on-ramp at Junipero Serra Rd	Caltrans	No	Yes	Yes	Yes	Yes	Yes	No
I-5 NB on-ramp at Ortega Hwy	Caltrans	Yes	Yes	Yes	Yes	Yes	Yes	No
I-5 SB off-ramp at Ortega Hwy	Caltrans	No	Yes	Yes	Yes	Yes	Yes	Yes
I-5 SB off-ramp at Oso Pkwy	Caltrans	Yes	Yes	Yes	Yes	Yes	Yes	No
I-5 NB on-ramp at Stonehill Dr	Caltrans	Yes	Yes	Yes	Yes	Yes	Yes	Yes
I-5 SB direct on-ramp at SR-1/Las Ramblas	Caltrans	Yes	Yes	Yes	Yes	Yes	Yes	No
SR 241 NB on-ramp at Antonio Pkwy	Caltrans	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SR 241 SB off-ramp at Antonio Pkwy	Caltrans	No	No	No	No	No	No	No
SR 241 NB on-ramp at Oso Pkwy	Caltrans	No	No	No	No	No	No	No
SR 241 NB on-ramp at Santa Margarita Pkwy	Caltrans	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SR 241 SB off-ramp at Santa Margarita Pkwy	Caltrans	Yes	Yes	Yes	Yes	Yes	Yes	Yes

(a) Year 2025 conditions that assume committed circulation system improvements and anticipated future land use development, including the 14,000 du proposed RMV plan.

- Under the build Alternatives that include the FTC-S toll road extension from Oso Parkway to Avenida La Pata (the CC-ALPV and A7C-ALPV Alternatives), deficiencies occur at 10 segments of I-5, 16 freeway/tollway ramps (13 I-5 ramps and three SR 241 ramps) and 34 intersections (25 arterial-to-arterial and nine arterial-to-freeway/tollway ramps).
- Under the AIO Alternative, deficiencies occur at 12 segments of I-5, 16 freeway/tollway ramps (11 I-5 ramps and five SR 241 ramps) and 36 intersections (25 arterial-to-arterial and 11 arterial-to-freeway/tollway ramps).
- Under the I-5 Alternative, a deficiency occurs at one segment of I-5, 11 freeway/tollway ramps (eight I-5 ramps and three SR 241 ramps) and 31 intersections (24 arterial-to-arterial and seven arterial-to-freeway/tollway ramps).

Transportation Improvements

A detailed discussion of study area transportation improvements, including the identification of the adverse impacts and beneficial effects of the build Alternatives is provided later in Section ES.5.4.4 (Impact Assessment with 2025 No Action Alternative as the Baseline) and Section ES.5.6 (Long-Range Mitigation Measures). Transportation improvements presented in those Sections address the circulation system deficiencies in a comprehensive context, providing a mitigation program that would be implemented with future land use development and with implementation of a selected Build Alternative. No additional mitigation is proposed for the impacts identified above (impacts of the build Alternatives in comparison to existing conditions) for the following reasons:

1. The appropriate mitigation is the implementation of the projects in the MPAH and RTP that are funded or have committed funding as described in Section 3.4 (Future Circulation System). This mitigation will occur based on existing plans and commitments separate from any SOCTIIP project.
2. Mitigation of these impacts is the responsibility of the other agencies or the development projects that will occur in accordance with adopted plans, policies and project approvals.
3. A comparison of project buildout in 2025 to existing conditions in 2000/2001 is not accurate or realistic because it overlooks significant changes that occur within the 2025 planning horizon. An unfair comparison for analysis of project impacts results if it is not recognized that changes during the planning horizon will occur due to future development and implementation of committed roadway projects.
4. The considerations identified in 1, 2 and 3 above, lead to the conclusion that it is not reasonable or feasible to provide mitigation for a SOCTIIP Build Alternative compared to existing conditions. Mitigation will be provided as outlined in Section ES.5.6 (Long-Range Mitigation Measures).

ES.5.4.4 Impact Assessment with 2025 No Action Alternative as the Baseline

This Section summarizes the impacts of the SOCTIIP Build Alternatives when compared against year 2025 baseline traffic conditions under the No Action Alternative. In these comparisons, a Build Alternative was paired with a No Action Alternative that features the same set of future land use assumptions. For example, a Build Alternative scenario assuming the 14,000 DU proposed RMV development plan was compared with a No Action Alternative scenario with that same assumption for RMV. Therefore, the comparison shows the effect of the added roadway facility or facilities in that Build Alternative and assumes the same growth implied by that same land use scenario.

When the comparison between a Build Alternative scenario and a No Action Alternative scenario was made, impacts of the Build Alternative were identified using the impact criteria established for the traffic study. Those impacts are referred to as “adverse impacts” or simply “impacts.” At the same time, the benefits of the Build Alternative were identified by summarizing those locations where deficiencies in the No Action Alternative are eliminated by the circulation facilities to be constructed in the Build Alternative. These can be considered as “positive impacts” of the Build Alternative, but to avoid confusion in the use of the term impact, they are referred to as the “beneficial effects” of the project. Therefore, for each Build Alternative that is analyzed, there is an accounting of both the beneficial effects and the adverse impacts of that Alternative, compared to the No Action Alternative.

Summary of Beneficial Effects

Under the No Action Alternative, peak hour deficiencies are forecast throughout the study area as indicated earlier in Section ES.5.4.2 (Peak Hour Traffic Conditions), and those deficiencies would presumably need to be addressed through the construction of additional improvements if the future land uses projected in the study area were to occur. Such improvements could include widening of arterial roads, improvement of arterial intersections, freeway ramp modifications, and freeway mainline enhancements. In other words, there would be an overall program of improvements to satisfy future traffic demands based on anticipated future land uses under the No Action Alternative.

When a Build Alternative eliminates the need for improvements that would be required to address a given deficiency under the No Action Alternative, that Build Alternative is considered to have a beneficial effect. In this analysis, a beneficial effect is considered to occur at a given circulation facility if the following two conditions are satisfied:

- The facility is forecast to operate at a deficient LOS in 2025 under the No Action Alternative.
- The facility is forecast to operate at an acceptable (non-deficient) LOS in 2025 under the given Build Alternative.

Refer to Section 4.2 (Long-Range Traffic Conditions) for illustrations showing the locations where LOS deficiencies are forecast under each of the No Action Alternative and Build Alternative analysis scenarios. The facilities where beneficial effects occur under the Build Alternatives compared to the No Action Alternative are summarized in Table ES-7.

Summary of Adverse Impacts

The adverse traffic impacts of the Build Alternatives were identified by comparing year 2025 peak hour traffic conditions based on the No Action Alternative with year 2025 peak hour traffic conditions under each of the Build Alternatives. A facility on the circulation system is adversely impacted if the following two conditions are satisfied:

- The facility is forecast to operate at a deficient LOS in 2025 under the Build Alternative.
- Compared to the No Action Alternative, the contribution to the deficient LOS by the Build Alternative exceeds the adopted impact thresholds. Refer to Section 1.5.1 (Impact Criteria) for the impact thresholds that have been adopted by the jurisdictions in the study area.

The adverse impacts of the Build Alternatives are separated into the two following categories:

- Direct adverse impacts.
- Indirect adverse impacts.

The distinction is important because it affects the manner in which mitigation measures that address the adverse impacts of the Build Alternatives are established. The following discusses these two types of adverse impacts.

Direct Adverse Impacts – These are adverse impacts that have some form of identifiable connection or “nexus” with the circulation improvements featured in a given Build Alternative. Typically, this type of impact occurs when the traffic causing the adverse impact uses at least part of the new circulation facilities constructed in that Build Alternative. The Build Alternatives in which the FTC-S toll road terminates at an arterial roadway such as Ortega Highway or Avenida Pico are examples. Vehicle traffic on the FTC-S will use local arterials in the vicinity of the FTC-S termination point and thereby add traffic on those local arterials. As a result, there is a nexus between the traffic on the new facility and the traffic causing an impact on those local arterials.

Indirect Adverse Impacts – These adverse impacts occur as a result of a change in travel patterns due to a new facility that is constructed in a given Build Alternative. While the impacts are generally small in magnitude, they are nevertheless adverse impacts under the specified performance criteria. The most common example occurs under the Build Alternatives with the FTC-S toll road which divert traffic from I-5, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp intersections serving I-5. Various I-5 ramps and

Table ES-7

SUMMARY OF THE BENEFICIAL EFFECTS OF THE SOCTIIP BUILD ALTERNATIVES

Locations where Beneficial Effects Occur Compared to the No Action Alternative	Jurisdiction	Analysis Scenarios (a) in which Beneficial Effects Occur Under the Build Alternatives											AIP	I-5		
		FEC-FEC-M, FEC-W, & FEC-APV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-7SV	A7C-FEC-M, A7C-FEC-M & A7C-FECV-AP	A7C-FECV-C			AIO	
INTERSECTIONS																
Antonio Parkway & North River Road	County	3	3	3	None	3	3	3	None	None	3	3	None	None	None	None
Avenida Empresa & Avenida de Las Banderas	Rancho Santa Margarita	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	None
Avenida La Pata & Avenida Pico	San Clemente	3,4	3,4	3	None	None	3,4	None	None	None	None	3,4	3	None	None	None
Avenida La Pata & Avenida Vista Hermosa	San Clemente	1,3,4	1,3,4	1,3	None	None	1,3,4	None	None	None	1,3	1,3,4	1,3	None	None	None
Avenida La Pata & Camino del Rio	San Clemente	3,4	3,4	3	None	None	3,4	None	None	None	3	3,4	3	None	None	None
Cabot Road & Crown Valley Parkway	Laguna Niguel	3	3	None	None	None	3	None	None	None	3	None	3	3	3	3,4
Camino Capistrano & I-5 southbound ramps	Caltrans/San Juan Capistrano	4	4	None	None	None	None	None	None	None	None	4	None	4	4	None
Camino Capistrano & Junipero Serra Road	San Juan Capistrano	1,3,4	3,4	3	None	None	1,3,4	3	None	None	3	3,4	1,3	3,4	3,4	1,3,4
Camino Vera Cruz & Avenida Vista Hermosa	San Clemente	None	1	None	None	None	1	None	None	None	None	1	None	None	None	None
I-5 northbound ramps & Avenida Pico	Caltrans/San Clemente	1,3,4	None	1,3	None	None	1,3,4	1,3	None	None	1,3	1,3,4	1,3	1,3,4	1,3	1,3,4
I-5 southbound ramps & Avenida Pico	Caltrans/San Clemente	3	None	3	None	None	3	None	None	None	3	3	3	3	3,4	1,3,4
I-5 southbound ramps & Avery Parkway	Caltrans/Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
I-5 northbound ramps & Avery Parkway	Caltrans/Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
I-5 northbound ramps & Crown Valley Parkway	Caltrans/Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	4
I-5 southbound ramps & Camino Estrella	Caltrans/San Clemente/Dana Point	1	1	1	None	None	1	None	None	None	1	1	1	1	None	None
I-5 southbound ramps & Ortega Highway	Caltrans/San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
I-5 northbound ramps & Ortega Highway	Caltrans/San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
I-5 northbound ramps & Oso Parkway	Caltrans/Mission Viejo	4	4	None	None	None	4	None	None	None	4	4	None	None	None	4
La Novia Avenue & Ortega Highway	San Juan Capistrano	1	1	1	None	None	1	None	None	None	1	1	1	1	None	None
La Pata Avenue & San Juan Creek Road	County	3	3,4	3	None	None	3	3,4	None	None	3	3	3	3,4	3	3
Marguerite Parkway & Avery Parkway	Mission Viejo	1	1	1	None	None	1	None	None	None	1	1	1	1	None	None
Marguerite Parkway & Jeronimo Road	Mission Viejo	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Marguerite Parkway & La Paz Road	Mission Viejo	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3
Pacific Coast Highway & Camino Capistrano	San Clemente/Dana Point	1	1	1	None	None	1	None	None	None	1	1	1	1	None	None
SR 241 northbound ramps & Oso Parkway	Caltrans/Rancho Santa Margarita	1,3,4	1,3,4	1,3	1,3	1,3	1,3,4	1,3	1,3	1,3	1,3,4	1,3,4	1,3	1,3	1,3	None
SR 241 southbound ramps & Oso Parkway	Caltrans/Rancho Santa Margarita	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	None
Valle Road & La Novia Avenue/I-5 northbound ramps	Caltrans/San Juan Capistrano	1,3	1,3	1,3	3	1,3	1,3	1,3	None	None	1,3	1,3	1,3	1,3	3	3
FREEWAY (I-5) MAINLINE SEGMENTS																
I-5 (Alicia Parkway to La Paz Road)	Caltrans/Laguna Hills/Mission Viejo	1,3,4	1,3,4	1,3	None	1,3	1,3,4	1,3	None	None	1,3	1,3,4	1,3	None	None	3,4
I-5 (Avenida Pico to El Camino Real)	Caltrans/San Clemente	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
I-5 (Avenida Vista Hermosa to Avenida Pico)	Caltrans/San Clemente	1	1	1	None	None	1	None	None	None	1	1	1	1	None	1
I-5 (Camino Capistrano to Stonehill Drive)	Caltrans/San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4
I-5 (Camino Estrella to Avenida Vista Hermosa)	Caltrans/San Clemente	3,4	3,4	3	None	None	3	None	None	None	3	3,4	3	None	None	3,4
I-5 (Junipero Serra Road to Ortega Highway)	Caltrans/San Juan Capistrano	1,3,4	1,3,4	1,3	None	None	1,3,4	1,3	None	None	1,3	1,3,4	1,3	None	None	3,4
I-5 (La Paz Road to Oso Parkway)	Caltrans/Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4
I-5 (Ortega Highway to Camino Capistrano)	Caltrans/San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4
I-5 (SR 1/Camino Las Ramblas to Camino Estrella)	Caltrans/Dana Point	3,4	3,4	3	None	None	3	None	None	None	3	3,4	3	None	None	3,4
I-5 (Stonehill Drive to SR 1/Camino Las Ramblas)	Caltrans/San Juan Capistrano	1,3,4	1,3,4	3	None	1,3,4	1,3,4	3	None	None	1,3,4	1,3,4	3	None	None	3,4

Table ES-7 (cont) SUMMARY OF THE BENEFICIAL EFFECTS OF THE SOCTIP BUILD ALTERNATIVES															
Locations where Beneficial Effects Occur Compared to the No Action Alternative	Jurisdiction	Analysis Scenarios (a) in which Beneficial Effects Occur Under the Build Alternatives													
		FEC-W, & FEC-M, & FEC-AFV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-7SV	A7C-FECV, A7C-FEC-M, & A7C-FECV-AF	A7C-FECV-C	AIO	AIP	I-5
FREeway/TOLLWAY RAMPS															
I-5 northbound direct on-ramp at Alicia Parkway	Caltrans/Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	4	None
I-5 northbound on-ramp at Avenida Pico	Caltrans/San Clemente	None	None	None	None	None	None	None	None	None	None	None	4	3,4	3,4
I-5 southbound on-ramp at Avenida Pico	Caltrans/San Clemente	1	1	1	None	None	None	None	None	None	1	1	None	None	1
I-5 northbound direct on-ramp at Avd Vista Hermosa	Caltrans/San Clemente	1	1	1	None	None	None	None	None	None	1	1	None	None	None
I-5 southbound off-ramp at Camino Estrella	Caltrans/San Clemente/Dana Point	1	1	1	None	None	None	None	None	None	1	1	None	None	1
I-5 northbound on-ramp at Junipero Serra Road	Caltrans/San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	3,4	1,3,4
I-5 northbound on-ramp at Ortega Highway	Caltrans/San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	1
I-5 southbound off-ramp at Ortega Highway	Caltrans/San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	1
I-5 southbound off-ramp at Oso Parkway	Caltrans/Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	3	1,3
I-5 southbound direct on-ramp at SR-1/Cm Las Ramblas	Caltrans/Dana Point	None	None	None	None	None	None	None	None	None	None	None	None	3,4	1,3,4
SR 241 southbound off-ramp at Antonio Parkway	Caltrans/Rancho Santa Margarita	4	4	None	None	None	None	None	None	None	4	None	None	None	None
SR 241 northbound on-ramp at Oso Parkway	Caltrans/Rancho Santa Margarita	1,3,4	1,3,4	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	1,3	None	1,3
SR 241 southbound off-ramp at Oso Parkway	Caltrans/Rancho Santa Margarita	4	4	None	None	None	None	None	None	None	4	None	None	None	None

(a) The assumptions for each scenario are as follows:
 Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
 Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
 Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

ramp intersections are deficient under the No Action Alternative due to future land use in the study area and regional traffic growth, and the Build Alternatives may, in certain cases, worsen those deficiencies because of this additional traffic. Because none of this added traffic has origins or destinations in the vicinity of the circulation facilities that are constructed in the given Build Alternative, the impacts of this added traffic are considered to be indirect. There is no nexus between this increased traffic and the facility being built in the given Build Alternative, but simply a shift in travel routing due to I-5 having additional capacity compared to the No Action Alternative.

Table ES-8 summarizes the locations where direct and indirect adverse impacts occur under the Build Alternatives compared to the No Action Alternative. Note that no I-5 mainline segments in the study area are adversely impacted by the SOCTIIP Build Alternatives.

Net Beneficial Effects and Adverse Impacts

The following lists the SOCTIIP Build Alternatives in general order from those alternatives with the highest number of beneficial effects and lowest number of adverse impacts to those alternatives with the lowest number of beneficial effects and highest number of adverse impacts. Alternatives that are listed together have relatively the same magnitude of beneficial effects and adverse impacts.

- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5, the Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road, and the I-5 Alternative.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway and the AIP Alternative.
- The AIO Alternative.

ES.5.5 LONG-RANGE MEASURES OF EFFECTIVENESS

Various measures of effectiveness were quantified based on long-range (year 2025) traffic forecast data so that the SOCTIIP Build Alternatives could be compared to each other and to the No Action Alternative. The measures applied in this analysis involve statistics on systemwide travel time savings, facility specific statistics such as congestion levels on I-5 and the arterial roadway system in the study area, and point to point travel time statistics. All provide some form of statistical basis for comparing how the sub-regional transportation system in general and the vehicles using the sub-regional transportation system respond to the various alternatives.

Table ES-8

SUMMARY OF THE DIRECT AND INDIRECT ADVERSE IMPACTS OF THE SOCTIIP BUILD ALTERNATIVES

Locations where Adverse Impacts Occur Compared to the No Action Alternative (b)	Jurisdiction	Analysis Scenarios (a) in which Adverse Impacts Occur Under the Build Alternatives											AIO	AIP	I-5					
		FEC-FEC-M, & A7C-ALPV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-7SV	A7C-FEC-M, A7C-FEC-M & A7C-FECV-AP	A7C-FECV-C								
DIRECT ADVERSE IMPACTS																				
Intersections																				
Antonio Parkway & Crown Valley Parkway	County of Orange	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4	3,4	3
Antonio Parkway-La Pata Avenue & Ortega Highway	County of Orange	None	None	None	1	None	None	None	None	None	None	None	None	None	None	None	None	4	3,4	1,3,4
Antonio Parkway & North River Road	County of Orange	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3	3	None
Antonio Parkway & Oso Parkway	County of Orange	None	None	None	1	None	None	None	None	None	None	None	None	None	None	None	None	3,4	3,4	None
Avenida Empresa & Avenida De Las Banderas	Rancho Santa Margarita	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4	3	None
Avenida Empresa & Santa Margarita Parkway	Rancho Santa Margarita	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4	3	None
Avenida La Pata & Avenida Pico	San Clemente	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4	3,4	None
Avenida La Pata & Avenida Vista Hermosa	San Clemente	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4	3,4	None
Avenida Talega & Avenida Vista Hermosa	San Clemente	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
Avenida Vista Hermosa & Avenida Pico	San Clemente	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
Camino Capistrano & San Juan Creek Road	San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
Camino Capistrano & Stonehill Drive	San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
Camino Vera Cruz & Avenida Vista Hermosa	San Clemente	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
Felipe Road & Oso Parkway	Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
I-5 northbound ramps & Avenida Pico	San Clemente	None	1,3,4	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4	3,4	4
I-5 southbound ramps & Avenida Pico	San Clemente	None	None	None	3	None	None	None	None	None	None	None	None	None	None	None	None	3,4	None	None
I-5 northbound ramps & Crown Valley Parkway	Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
I-5 northbound ramps & Ortega Highway	San Juan Capistrano	IND	IND	IND	None	IND	None	None	None	None	None	None	None	None	None	None	None	None	None	4
I-5 southbound ramps & Ortega Highway	San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
I-5 northbound ramps & Oso Parkway	Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	1
La Novia Avenue & Ortega Highway	San Juan Capistrano	None	None	None	1	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
La Novia Avenue & San Juan Creek Road	San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
La Pata Avenue & San Juan Creek Road	County of Orange	None	None	None	3	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
Los Altos & Crown Valley Parkway	Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	4
Marguerite Parkway & Avery Parkway	Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	4
Marguerite Parkway & Crown Valley Parkway	Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	1
Marguerite Parkway & Jeronimo Road	Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	4	4	None
Puerta Real & Crown Valley Parkway	Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	4
Rancho Viejo Road & Ortega Highway	San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	1
SR 241 northbound ramps & Antonio Parkway	Rancho Santa Margarita	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
SR 241 northbound ramps & Oso Parkway	Rancho Santa Margarita	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3	3	None
SR 241 southbound ramps & Oso Parkway	Rancho Santa Margarita	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4	3,4	None
Valle Road & La Novia Avenue/I-5 northbound ramps	Rancho Santa Margarita	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	4	4	None
Freeway (I-5) Mainline Segments	Caltrans/San Juan Capistrano	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
None	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table ES-8 (cont)
SUMMARY OF THE DIRECT AND INDIRECT ADVERSE IMPACTS OF THE SOCTIIP BUILD ALTERNATIVES

Locations where Adverse Impacts Occur Compared to the No Action Alternative (b) DIRECT ADVERSE IMPACTS (cont)	Jurisdiction	Analysis Scenarios (a) in which Adverse Impacts Occur Under the Build Alternatives											AIO	AIP	I-5		
		FEC-W, & FEC-M, & FEC-AFV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-TSV	A7C-FEC-M, & A7C-FEC-AF	A7C-FECV-C					
Freeway/Tollway Ramps																	
I-5 northbound off-ramp at Avenida Pico	Caltrans/San Clemente	None	None	None	None	1,3	None	1,3	None	None	None	None	None	None	None	None	None
I-5 northbound on-ramp at Avenida Pico	Caltrans/San Clemente	IND	1,3,4	IND	None	1	1,3,4	1,3	None	None	None	None	None	IND	IND	None	None
I-5 southbound off-ramp at Avenida Pico	Caltrans/San Clemente	None	1,3,4	None	None	None	1,3,4	None	None	None	None	None	None	None	None	None	None
I-5 southbound on-ramp at Avenida Pico	Caltrans/San Clemente	None	None	None	None	1,3	None	1,3	None	None	None	None	None	None	None	3,4	None
I-5 northbound direct on-ramp at Avd Vista Hermosa	Caltrans/San Clemente	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
I-5 southbound off-ramp at Avenida Vista Hermosa	Caltrans/San Clemente	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
I-5 northbound direct on-ramp at Crown Valley Parkway	Caltrans/Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3	1,3,4
I-5 southbound direct on-ramp at Crown Valley Parkway	Caltrans/Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3	3,4
I-5 northbound on-ramp at Ortega Highway	Caltrans/San Juan Capistrano	IND	IND	IND	None	IND	IND	IND	None	None	None	None	None	IND	IND	None	None
I-5 southbound off-ramp at Ortega Highway	Caltrans/San Juan Capistrano	IND	IND	IND	None	None	None	None	None	None	None	None	None	IND	IND	None	None
I-5 southbound off-ramp at Oso Parkway	Caltrans/Mission Viejo	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3	None
I-5 northbound on-ramp at Stonehill Drive	Caltrans/San Juan Capistrano	IND	IND	IND	None	IND	IND	IND	None	None	None	None	None	IND	IND	3,4	1,3,4
SR 241 northbound on-ramp at Antonio Parkway	Caltrans/Rancho Santa Margarita	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3	None
SR 241 southbound off-ramp at Antonio Parkway	Caltrans/Rancho Santa Margarita	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4	None
SR 241 northbound on-ramp at Oso Parkway	Caltrans/Rancho Santa Margarita	None	None	None	None	None	None	None	None	None	None	None	None	None	None	3,4	None
SR 241 southbound off-ramp at Oso Parkway	Caltrans/Rancho Santa Margarita	None	None	None	None	None	None	None	None	None	None	None	None	None	None	4	None
INDIRECT ADVERSE IMPACTS																	
Intersections																	
I-5 northbound ramps & Ortega Highway	San Juan Capistrano	1	1	1	None	1	1	1	None	1	1	1	1	1	1	None	None
Freeway (I-5) Mainline Segments																	
None	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Freeway/Tollway Ramps																	
I-5 northbound on-ramp at Avenida Pico	Caltrans/San Clemente	1,3,4	DIR	1,3	None	DIR	DIR	DIR	None	DIR	DIR	DIR	DIR	1,3,4	1,3	None	DIR
I-5 southbound off-ramp at Camino Capistrano	Caltrans/San Juan Capistrano	1,3,4	1,3,4	1,3	None	3	1,3,4	1,3	None	1,3	1,3,4	1,3,4	1,3,4	1,3,4	1,3	None	None
I-5 northbound on-ramp at Ortega Highway	Caltrans/San Juan Capistrano	1,3	1,3	1,3	None	1,3	1,3	1,3	None	1,3	1,3	1,3	1,3	1,3	1,3	DIR	None
I-5 southbound off-ramp at Ortega Highway	Caltrans/San Juan Capistrano	1	1	1	None	None	1	None	None	None	1	1	1	1	None	None	DIR
I-5 northbound on-ramp at Stonehill Drive	Caltrans/San Juan Capistrano	1,3,4	1,3,4	1,3	None	1,3	1,3,4	1,3	None	1,3	1,3,4	1,3,4	1,3,4	1,3,4	1,3	3,4	DIR

(a) The assumptions for each scenario are as follows:
 Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
 Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
 Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Locations where both direct and indirect impacts occur, depending on the Build Alternative, appear in both the Direct Adverse Impact and Indirect Adverse Impact sections of the table. In such cases, the following abbreviations are entered to differentiate between direct and indirect impacts:
 IND - Indirect adverse impact occurs at this location under the given Build Alternative. Refer to the Indirect Adverse Impact section of the table for the scenarios in which the impact occurs.
 DIR - Direct adverse impact occurs at this location under the given Build Alternative. Refer to the Direct Adverse Impact section of the table for the scenarios in which the impact occurs.

ES.5.5.1 Systemwide Travel Time Savings

A traffic forecasting model was used to estimate the changes in year 2025 regionwide vehicle miles of travel (VMT) and vehicle hours of travel (VHT) produced by each of the Build Alternatives compared to the No Action Alternative. The changes in systemwide VMT were found to be relatively modest, which is an indication that the average length of vehicle trips in southern Orange County does not change substantially, in terms of distance, between the No Action Alternative and the Build Alternatives.

The VHT statistic essentially indicates the amount of travel time savings that is produced due to the traffic congestion relief provided by each of the Build Alternatives. This travel time savings statistic, which is expressed as total hours of reduced vehicle travel time per day, is summarized in Table ES-9 and is shown comparatively in Figure ES-20. Refer to Section 4.3.1 (Systemwide VMT and VHT Statistics) for detailed discussions of the VMT and VHT statistics for the Build Alternatives.

The following lists the SOCTIIP Build Alternatives in general order from those Alternatives with the highest amount of systemwide travel time savings to those Alternatives with the lowest. The amount of systemwide travel time savings is relatively the same for Alternatives that are listed together and that amount is substantially different from other higher or lower ranking Alternatives.

- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 and the I-5 Alternative.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata and the AIP Alternative.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway and the AIO Alternative.

As noted earlier, this systemwide travel time savings comparison is only one measure for evaluating the beneficial and adverse impacts of the Build Alternatives. As described in this Section, a full range of measures of effectiveness, including this measure, were assessed, which allow for a greater understanding of the beneficial and adverse impact of the Build Alternatives on the circulation system throughout the SOCTIIP study area.

ES.5.5.2 I-5 Congestion in the Study Area

The peak hour LOSs forecast along I-5 in each of the SOCTIIP Alternatives were used to estimate the duration of congestion (i.e., the number of hours of congestion before and after the peak hours) that would actually occur and the proportion of daily traffic on I-5 that is anticipated

Table ES-9

SUMMARY OF BUILD ALTERNATIVE SYSTEMWIDE TRAVEL TIME SAVINGS

Alternatives and Scenarios (a)	Total Hours of Vehicle Travel Time Savings Per Day (b)
YEAR 2025 SCENARIO 1	
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5	
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)	31,000
FEC-TV Alternatives (Initial and Ultimate)	28,000
CC Alternatives (Initial and Ultimate)	29,000
A7C and A7C-7SV Alternatives (Initial and Ultimate)	29,000
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)	32,000
Build Alternatives with FTC-S Toll Road from Oso Parkway to Cristianitos Road, Avenida Pico, Avenida La Pata or Ortega Highway	
FEC-CV Alternatives (Initial and Ultimate)	25,000
A7C-FECV-C Alternatives (Initial and Ultimate)	24,000
FEC-APV Alternatives (Initial and Ultimate)	18,000
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)	17,000
FEC-OHV Alternatives (Initial and Ultimate)	3,000
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)	0
Build Alternatives without the FTC-S Toll Road	
I-5 Alternative	28,000
YEAR 2025 SCENARIO 3	
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5	
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)	20,000
FEC-TV Alternatives (Initial and Ultimate)	17,000
CC Alternatives (Initial and Ultimate)	18,000
A7C and A7C-7SV Alternatives (Initial and Ultimate)	18,000
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)	21,000
Build Alternatives with FTC-S Toll Road from Oso Parkway to Cristianitos Road, Avenida Pico, Avenida La Pata or Ortega Highway	
FEC-CV Alternatives (Initial and Ultimate)	15,000
A7C-FECV-C Alternatives (Initial and Ultimate)	14,000
FEC-APV Alternatives (Initial and Ultimate)	9,000
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)	8,000
FEC-OHV Alternatives (Initial and Ultimate)	3,000
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)	1,000

Table ES-9 (cont)
 SUMMARY OF BUILD ALTERNATIVE SYSTEMWIDE TRAVEL TIME SAVINGS

Alternatives and Scenarios (a)	Total Hours of Vehicle Travel Time Savings Per Day (b)
YEAR 2025 SCENARIO 3 (cont)	
Build Alternatives without the FTC-S Toll Road	
AIO Alternative	5,000
AIP Alternative	10,000
I-5 Alternative	20,000
YEAR 2025 SCENARIO 4	
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5	
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)	34,000
FEC-TV Alternatives (Initial and Ultimate)	31,000
CC Alternatives (Initial and Ultimate)	26,000
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)	25,000
Build Alternatives without the FTC-S Toll Road	
AIO Alternative	8,000
AIP Alternative	13,000
I-5 Alternative	22,000

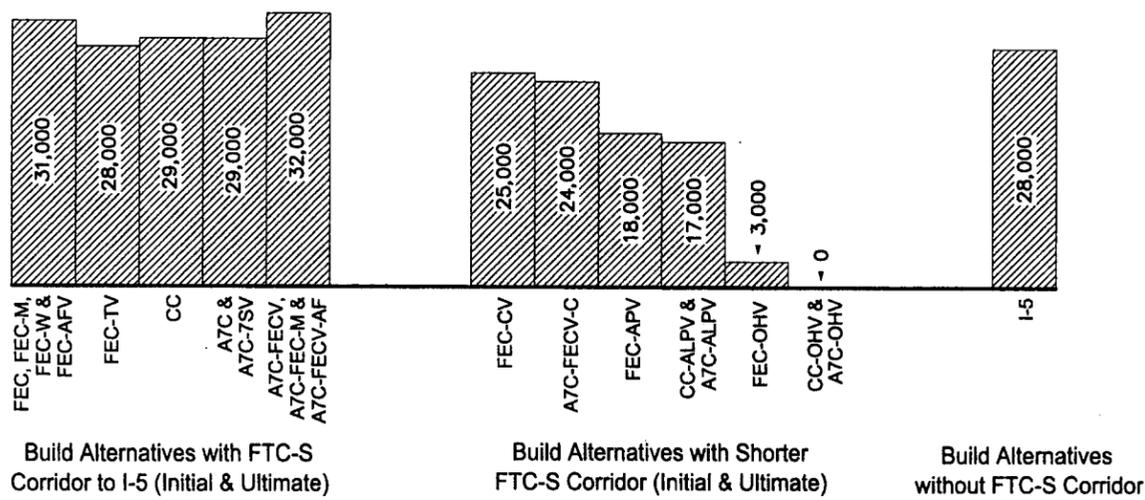
(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

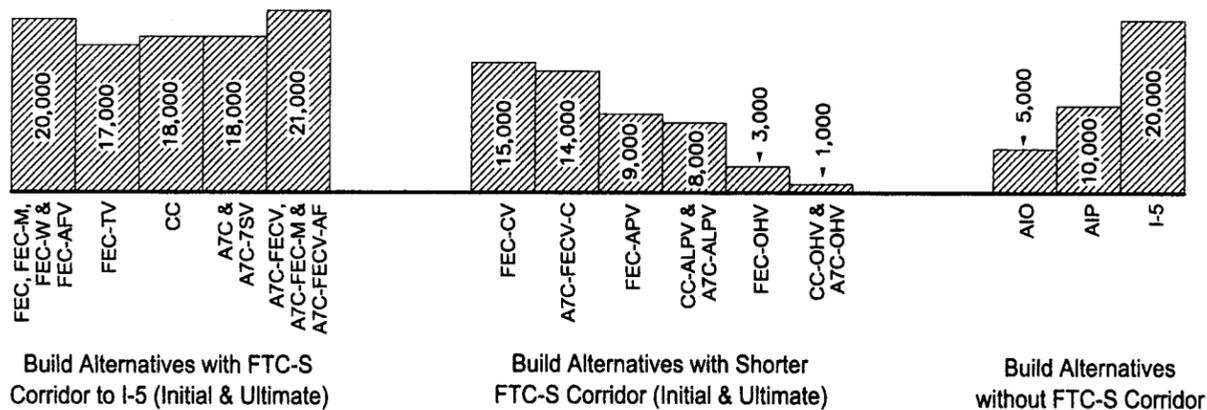
Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

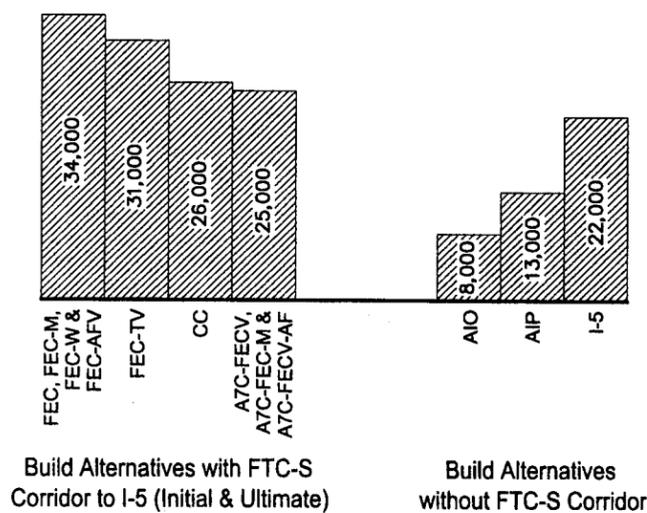
(b) Compared to the No Action Alternative



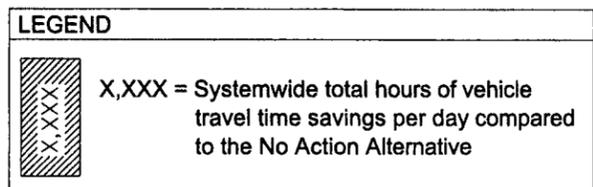
2025 Scenario 1



2025 Scenario 3



2025 Scenario 4



Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
 Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
 Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Summary of Build Alternative Systemwide Travel Time Savings

to experience congested conditions under each alternative. This statistic, which is expressed as the percentage of daily VMT on I-5 in the study area that is forecast to occur under congested conditions, is summarized in Table ES-10 and is comparatively shown in Figure ES-21. Refer to Section 4.3.2 (I-5 Congestion in the Study Area) for a detailed discussion on the methodology applied to estimate this statistic.

The following lists the SOCTIIP Alternatives in general order from those Alternatives with the lowest percentage of congestion on I-5 to those Alternatives with the highest percentage of congestion on I-5. The amount of congestion on I-5 is relatively the same for Alternatives that are listed together and that amount is substantially different from other higher or lower ranking Alternatives.

- The I-5 Alternative.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 and the AIP Alternative.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata.
- The AIO Alternative.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway and the No Action Alternative.

As shown in Table ES-10 and Figure ES-21, the I-5 and AIP Alternatives generally have less congestion on I-5 than the other Build Alternatives. This is because both of these Alternatives include improvements to I-5, where substantial congestion occurs under both existing conditions and future No Action Alternative conditions. As a result, the widening of I-5 under these two Alternatives results in the reduction of congestion greater than the reductions that would occur on I-5 under those Build Alternatives that do not include widening of I-5. As noted earlier, this I-5 congestion comparison is only one measure for evaluating the beneficial and adverse impacts of the Build Alternatives. As described in this Section, a full range of measures of effectiveness, including this measure, was assessed, which allows for a greater understanding of the beneficial and adverse impact of the Build Alternatives on the circulation system throughout the SOCTIIP study area.

ES.5.5.3 Arterial Congestion in the Study Area

The level of traffic congestion on the arterial roadway system in the study area was compared for the SOCTIIP Alternatives based on the total hours of vehicle delay forecast to occur at arterial intersections in the study area during the peak hours. This statistic was produced based on forecasted peak hour LOSs for a set of key intersections that is common to each of the analysis

Table ES-10
SUMMARY OF I-5 CONGESTION IN THE SOCTIIP STUDY AREA

Alternatives and Scenarios (a)	Congested Percentage of Daily Traffic on I-5 (b)
YEAR 2025 SCENARIO 1	
No Action Alternative	22.7%
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5	
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)	6.7%
FEC-TV Alternatives (Initial and Ultimate)	6.4%
CC Alternatives (Initial and Ultimate)	5.1%
A7C and A7C-7SV Alternatives (Initial and Ultimate)	5.4%
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)	5.2%
Build Alternatives with FTC-S Toll Road from Oso Parkway to Cristianitos Road, Avenida Pico, Avenida La Pata or Ortega Highway	
FEC-CV Alternatives (Initial and Ultimate)	9.4%
A7C-FECV-C Alternatives (Initial and Ultimate)	8.6%
FEC-APV Alternatives (Initial and Ultimate)	13.7%
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)	12.2%
FEC-OHV Alternatives (Initial and Ultimate)	21.8%
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)	21.7%
Build Alternatives without the FTC-S Toll Road	
I-5 Alternative	1.0%
YEAR 2025 SCENARIO 2	
No Action Alternative	28.6%
YEAR 2025 SCENARIO 3	
No Action Alternative	15.9%
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5	
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)	3.4%
FEC-TV Alternatives (Initial and Ultimate)	2.7%
CC Alternatives (Initial and Ultimate)	2.4%
A7C and A7C-7SV Alternatives (Initial and Ultimate)	2.5%
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)	3.2%

Table ES-10 (cont)

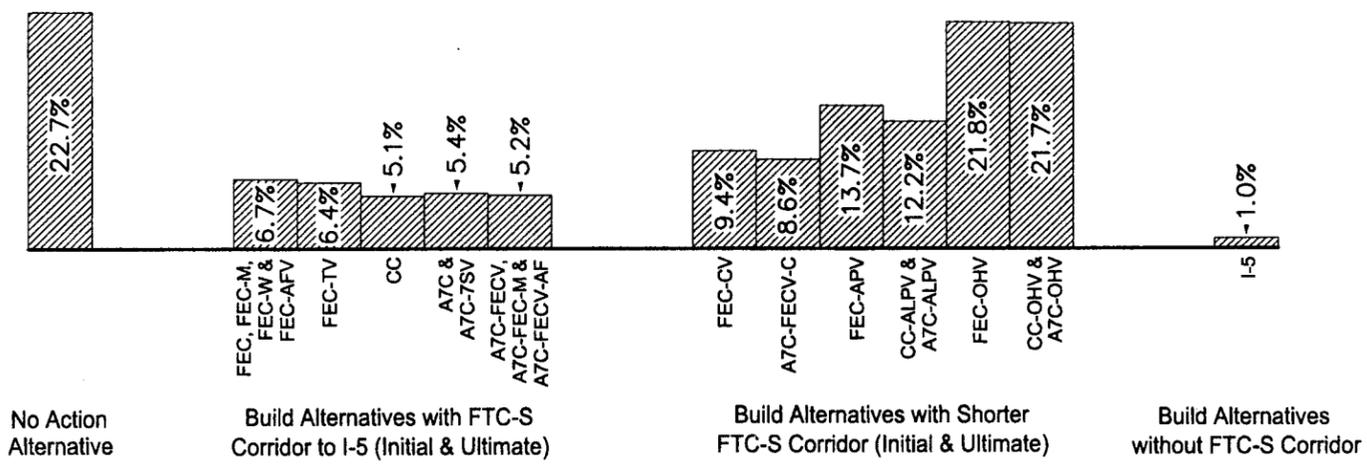
SUMMARY OF I-5 CONGESTION IN THE SOCTIIP STUDY AREA

Alternatives and Scenarios (a)	Congested Percentage of Daily Traffic on I-5 (b)
YEAR 2025 SCENARIO 3 (cont)	
Build Alternatives with FTC-S Toll Road from Oso Parkway to Cristianitos Road, Avenida Pico, Avenida La Pata or Ortega Highway	
FEC-CV Alternatives (Initial and Ultimate)	5.1%
A7C-FECV-C Alternatives (Initial and Ultimate)	4.6%
FEC-APV Alternatives (Initial and Ultimate)	8.7%
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)	7.8%
FEC-OHV Alternatives (Initial and Ultimate)	15.2%
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)	14.5%
Build Alternatives without the FTC-S Toll Road	
AIO Alternative	11.3%
AIP Alternative	2.2%
I-5 Alternative	1.0%
YEAR 2025 SCENARIO 4	
No Action Alternative	19.2%
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5	
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)	4.3%
FEC-TV Alternatives (Initial and Ultimate)	3.9%
CC Alternatives (Initial and Ultimate)	3.2%
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)	4.0%
Build Alternatives without the FTC-S Toll Road	
AIO Alternative	13.3%
AIP Alternative	2.4%
I-5 Alternative	1.2%

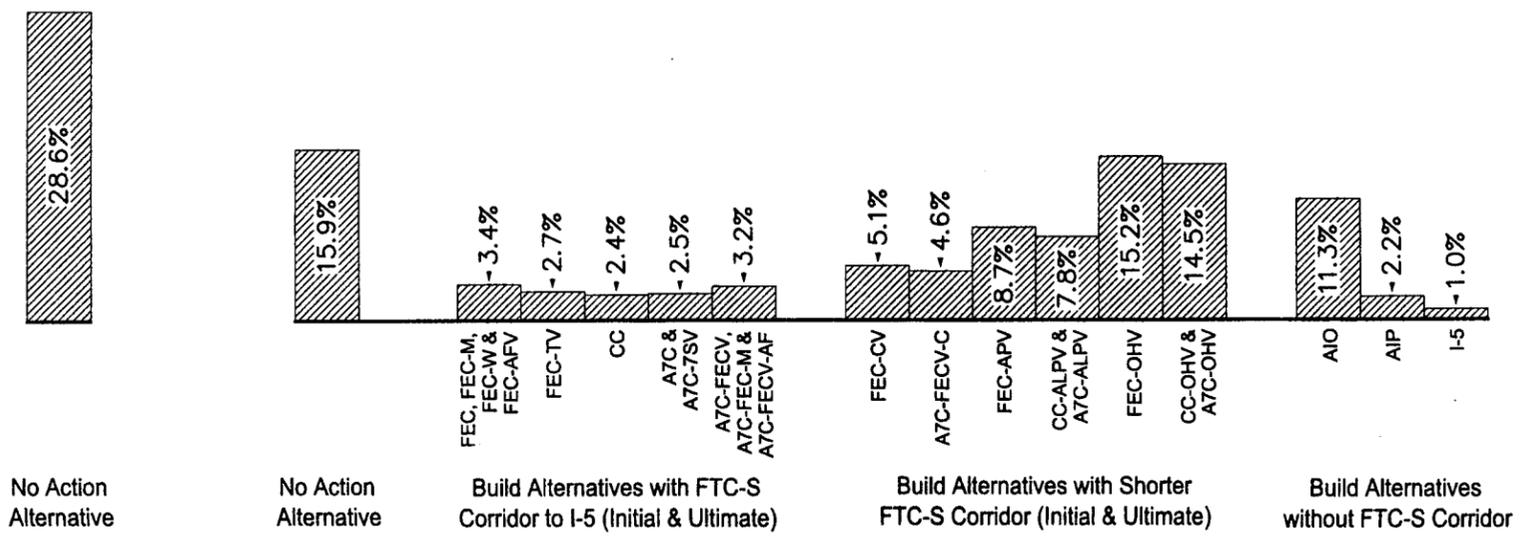
(a) The assumptions for each scenario are as follows:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Expressed as percent of daily vehicle miles of travel (VMT) on I-5 in the study area that is forecast to occur under congested conditions.

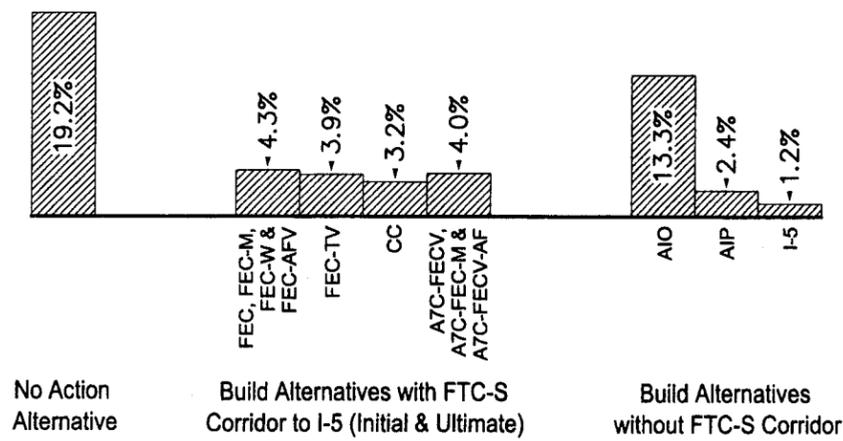


2025 Scenario 1



2025 Scenario 2

2025 Scenario 3



2025 Scenario 4

LEGEND

X.X% = Percent of daily vehicle miles of travel (VMT) on I-5 in the study area that is forecast to occur under congested conditions

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
 Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
 Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
 Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Summary of I-5 Congestion in the SOCTIIP Study Area

scenarios. The amount of vehicle delay generally increases as the LOS at intersections on the arterial system worsens. Therefore, the greater the amount of intersection delay under an alternative, the more congested the arterial roadway system will be under that alternative.

The total hours of vehicle delay forecast to occur during the peak hours under year 2025 conditions based on the No Action Alternative and each of the Build Alternatives are summarized in Table ES-11 and are comparatively shown in Figure ES-22. The LOSs applied to derive this statistic for the Build Alternatives include the intersection improvements that are proposed to mitigate the direct adverse intersection impacts of each alternative. Refer to Section 4.3.3 (Arterial Congestion in the Study Area) for further discussion on the methodology applied to estimate this statistic, and to Section ES.5.6 (Long-Range Mitigation Measures) for a summary of the mitigation measures for the direct adverse impacts of the Build Alternatives.

The following lists the SOCTIIP Alternatives in general order from those Alternatives with the lowest amount of congestion (i.e., vehicle delay) on the arterial system to those Alternatives with the highest amount of congestion. The amount of congestion on the arterial system is relatively the same for Alternatives that are listed together. Although the amount of congestion is substantially less under the Build Alternatives compared to the No Action Alternative, it should be noted that the amount of congestion on the arterial system does not vary substantially among the Build Alternatives.

- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5, the Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road, the AIO Alternative, and the AIP Alternative.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico, Avenida La Pata or Ortega Highway and the I-5 Alternative.
- The No Action Alternative.

As noted earlier, this arterial system congestion comparison is only one measure for evaluating the beneficial and adverse impacts of the Build Alternatives. As described in this Section, a full range of measures of effectiveness, including this measure, were assessed, which allow for a greater understanding of the beneficial and adverse impact of the Build Alternatives on the circulation system throughout the SOCTIIP study area.

ES.5.5.4 Point to Point Travel Time Savings

For this measure of effectiveness, comparisons between the SOCTIIP Build Alternatives were made based on point to point travel times between I-5 at the Orange/San Diego County border and areas to the north. This statistic is summarized as the reduction in year 2025 point to point AM and PM peak travel times forecast in each of the Build Alternatives compared to the No Action Alternative.

The resulting estimates of travel time savings in the peak directions in southern Orange County (i.e., northbound on I-5 in the AM and southbound on I-5 in the PM) are summarized in Table

Table ES-11

SUMMARY OF ARTERIAL SYSTEM CONGESTION IN THE SOCTIIP STUDY AREA

Alternatives and Scenarios (a)	Total Hours of Vehicle Delay on the Arterial System (b)
YEAR 2025 SCENARIO 1	
No Action Alternative	13,200
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5	
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)	10,600
FEC-TV Alternatives (Initial and Ultimate)	10,600
CC Alternatives (Initial and Ultimate)	10,600
A7C and A7C-7SV Alternatives (Initial and Ultimate)	10,400
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)	10,400
Build Alternatives with FTC-S Toll Road from Oso Parkway to Cristianitos Road, Avenida Pico, Avenida La Pata or Ortega Highway	
FEC-CV Alternatives (Initial and Ultimate)	10,800
A7C-FECV-C Alternatives (Initial and Ultimate)	10,800
FEC-APV Alternatives (Initial and Ultimate)	11,200
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)	10,900
FEC-OHV Alternatives (Initial and Ultimate)	11,400
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)	11,600
Build Alternatives without the FTC-S Toll Road	
I-5 Alternative	10,300
YEAR 2025 SCENARIO 2	
No Action Alternative	17,300
YEAR 2025 SCENARIO 3	
No Action Alternative	9,900
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5	
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)	7,700
FEC-TV Alternatives (Initial and Ultimate)	7,900
CC Alternatives (Initial and Ultimate)	7,900
A7C and A7C-7SV Alternatives (Initial and Ultimate)	7,800
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)	7,700

Table ES-11 (cont)

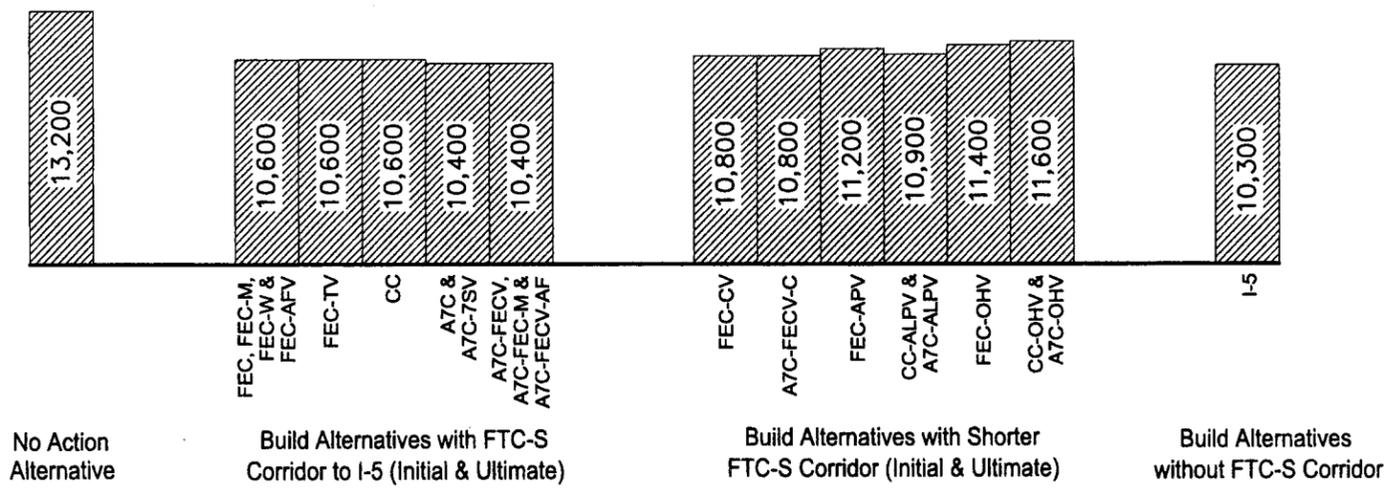
SUMMARY OF ARTERIAL SYSTEM CONGESTION IN THE SOCTIIP STUDY AREA

Alternatives and Scenarios (a)	Total Hours of Vehicle Delay on the Arterial System (b)
YEAR 2025 SCENARIO 3 (cont)	
Build Alternatives with FTC-S Toll Road from Oso Parkway to Cristianitos Road, Avenida Pico, Avenida La Pata or Ortega Highway	
FEC-CV Alternatives (Initial and Ultimate)	7,900
A7C-FECV-C Alternatives (Initial and Ultimate)	7,900
FEC-APV Alternatives (Initial and Ultimate)	8,100
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)	8,200
FEC-OHV Alternatives (Initial and Ultimate)	8,700
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)	8,400
Build Alternatives without the FTC-S Toll Road	
AIO Alternative	7,900
AIP Alternative	7,600
I-5 Alternative	8,300
YEAR 2025 SCENARIO 4	
No Action Alternative	12,500
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5	
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)	9,500
FEC-TV Alternatives (Initial and Ultimate)	9,500
CC Alternatives (Initial and Ultimate)	9,400
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)	10,100
Build Alternatives without the FTC-S Toll Road	
AIO Alternative	9,700
AIP Alternative	9,300
I-5 Alternative	10,500

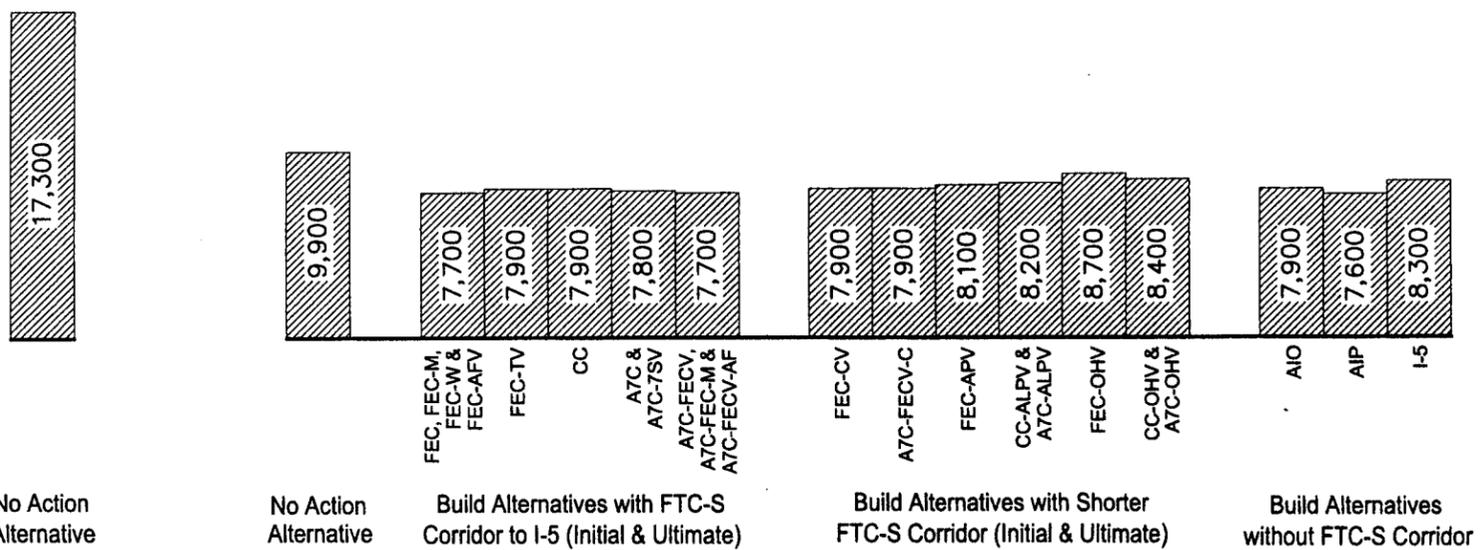
(a) The assumptions for each scenario are as follows:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Expressed as total hours of vehicle delay during the AM and PM peak at signalized arterial intersections in the study area.

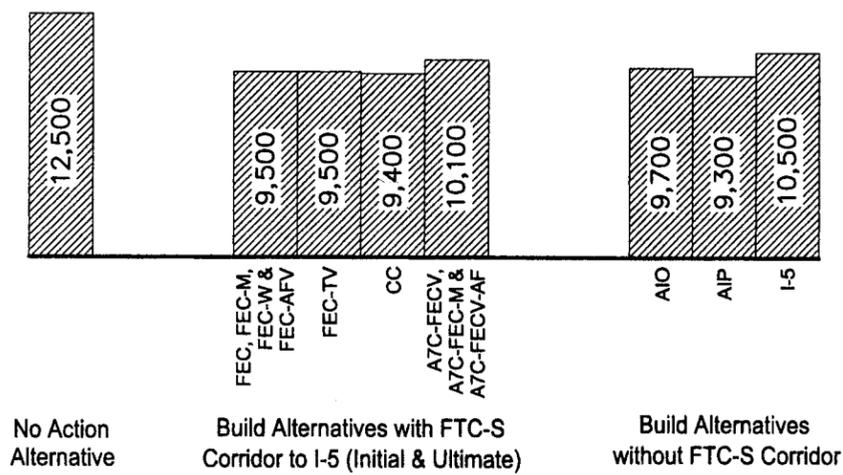


2025 Scenario 1



2025 Scenario 3

2025 Scenario 2



2025 Scenario 4

LEGEND

X,XXX = Total hours of vehicle delay at signalized arterial intersections in the study area during the AM and PM peak hours

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
 Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
 Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
 Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Summary of Arterial System Congestion in the SOCTIIP Study Area

ES-12 in terms of minutes and percentages. Travel time reductions are shown for travel between I-5 at the Orange/San Diego County border and three geographic areas to the north, southern Orange County, northern Orange County, and the region beyond Orange County (i.e., Los Angeles, Riverside, San Bernardino and Ventura Counties). The reductions are listed in ranges because the travel times vary between the AM and PM and also between smaller geographic areas that were analyzed within the three areas that are summarized here. Refer to Section 4.3.4 (Point to Point Travel Time Statistics) for a description of the smaller geographic areas and for summaries of the actual travel times that are forecast in the No Action Alternative and each of the Build Alternatives.

The following lists the SOCTIIP Build Alternatives in general order from those Alternatives with the highest amount of point to point travel time savings to those Alternatives with the lowest. The amount of point to point travel time savings is relatively the same for Alternatives that are listed together and that amount is substantially different from other higher or lower ranking Alternatives.

- The I-5 Alternative and the AIP Alternative.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 with a Far East Corridor connection at I-5.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 with a Central Corridor connection at I-5, and the Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata.
- The AIO Alternative.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway.

As noted earlier, this point to point travel time savings comparison is only one measure for evaluating the beneficial and adverse impacts of the Build Alternatives. As described in this Section, a full range of measures of effectiveness, including this measure, were assessed, which allow for a greater understanding of the beneficial and adverse impact of the Build Alternatives on the circulation system throughout the SOCTIIP study area.

Table ES-12
SUMMARY OF BUILD ALTERNATIVE POINT TO POINT TRAVEL TIME SAVINGS

Alternative	Average Travel Times (b)		
	South Orange County	North Orange County	Non-Orange County (d)
No Action Alternative (a)	28-38	57-81	121-233

Alternative	Reduction in Peak Travel Times (c)					
	South Orange County		North Orange County		Non-Orange County (d)	
	Minutes	Percent	Minutes	Percent	Minutes	Percent
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5 (a)						
FEC, FEC-M, FEC-W and FEC-AFV Alts. (Initial and Ultimate)	5-10	18%-26%	8-12	10%-16%	11-17	5%-13%
FEC-TV Alternatives (Initial and Ultimate)	3-7	11%-19%	5-9	6%-12%	7-11	3%-9%
CC Alternatives (Initial and Ultimate)	3-7	11%-19%	5-10	6%-13%	7-11	3%-9%
A7C and A7C-7SV Alternatives (Initial and Ultimate)	3-7	11%-19%	5-10	6%-13%	7-11	3%-9%
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)	5-10	18%-27%	8-12	10%-16%	11-15	5%-12%
Build Alternatives with FTC-S Toll Road from Oso Parkway to Cristianitos Road, Avenida Pico, Avenida La Pata or Ortega Highway (a)						
FEC-CV Alternatives (Initial and Ultimate)	4-7	14%-19%	6-9	7%-12%	8-11	3%-8%
A7C-FECV-C Alternatives (Initial and Ultimate)	4-7	14%-19%	7-9	9%-12%	8-10	4%-8%
FEC-APV Alternatives (Initial and Ultimate)	2-4	6%-11%	3-6	4%-9%	4-7	2%-5%
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)	2-4	5%-11%	2-6	2%-9%	3-7	2%-5%
FEC-OHV Alternatives (Initial and Ultimate)	0-1	0%-3%	0-1	0%-2%	0-1	0%-1%
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)	0-1	0%-3%	0-1	0%-2%	0-2	0%-2%

Table ES-12 (cont)
SUMMARY OF BUILD ALTERNATIVE POINT TO POINT TRAVEL TIME SAVINGS

Alternative	----- Reduction in Peak Travel Times (c) -----					
	South Orange County		North Orange County		Non-Orange County (d)	
	Minutes	Percent	Minutes	Percent	Minutes	Percent
Build Alternatives without the FTC-S Toll Road (a)						
AIO Alternative	1-3	4%-8%	1-4	1%-5%	2-5	1%-4%
AIP Alternative	6-10	21%-29%	13-15	16%-23%	12-17	7%-13%
I-5 Alternative	7-11	25%-32%	13-16	17%-25%	13-18	7%-14%

- (a) The travel time information summarized here is based on Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- (b) Expressed as the average year 2025 point to point travel time in minutes during the AM and PM peak between I-5 at the Orange/San Diego County border and three geographic areas to the north. The travel times are listed in ranges because the travel times vary between AM and PM and also between smaller geographic areas within the three areas that are summarized here.
- (c) Expressed as the reduction in terms of minutes and percentages compared to the No Action Alternative in year 2025 point to point AM and PM peak travel times between I-5 at the Orange/San Diego County border and three geographic areas to the north. The travel time savings are listed in ranges because the travel times vary between AM and PM and also between smaller geographic areas within the three areas that are summarized here.
- (d) Los Angeles, Riverside, San Bernardino and Ventura Counties.

ES.5.6 LONG-RANGE MITIGATION MEASURES

As discussed in Section ES.5.4.4 (Impact Assessment with 2025 No Action Alternative as the Baseline), the adverse impacts of the Build Alternatives are separated into two categories, direct and indirect impacts. The mitigation measures presented in this traffic report treat direct impacts and indirect impacts differently.

ES.5.6.1 Mitigation Measures for Indirect Adverse Impacts

The indirect adverse impacts are caused by re-directed traffic that would otherwise be using another part of the circulation system under the No Action Alternative. For example, traffic using I-5 under a given Build Alternative that, under the No Action Alternative, would impact local arterial intersections because of congestion on I-5 results in an indirect impact on I-5. In such cases, the Build Alternative increases traffic at I-5 ramps and ramp intersections while reducing traffic at arterial intersections. This shift in traffic results in beneficial effects at arterial intersections and indirect adverse impacts at I-5 ramps and ramp intersections.

The I-5 ramps and ramp intersections that are indirectly impacted by the Build Alternatives will experience increases in traffic as a result of future land use development in the study area and regional traffic growth. Such increases in traffic are addressed as part of the planning processes carried out in Orange County with respect to land use development and transportation improvements, for example the Orange County CMP and GMP.

Caltrans is responsible for the design, construction, maintenance, and operation of the California State Highway System, which includes I-5. In the case of I-5 interchanges (i.e., ramps and ramp intersections) that are indirectly impacted by the Build Alternatives, state highway improvements, including improvements to ramps, can only be implemented through Caltrans because Caltrans is the owner of the state highways. Improvements related to increases in traffic demand over time are typically either implemented solely by Caltrans, or, in some circumstances, by a collaboration between Caltrans and a local jurisdiction, with a nexus being established between future land uses and the I-5 improvements that are needed.

Proposals for implementing improvements at each of the I-5 interchanges (Avenida Pico, Camino Capistrano, Ortega Highway and Stonehill Drive) where indirect adverse impacts occur are currently under study by Caltrans. It is expected that Caltrans will implement future improvements to the ramps and ramp intersections at these interchanges because those ramps and ramp intersections will need improvements in the future with or without the Build Alternatives. The expected improvements to the four interchanges identified above implemented by Caltrans will mitigate the indirect adverse impacts of the Build Alternatives. There is no responsibility for the Build Alternatives to participate in the implementation of such improvements because there is no nexus between the increase in traffic that is forecast at the locations where indirect adverse impacts occur and the roadway facilities that are constructed in the Build Alternatives.

ES.5.6.2 Mitigation Measures for Direct Adverse Impacts

Direct adverse impacts have a nexus to the specific roadway facilities featured in a given Build Alternative and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified to mitigate such direct adverse impacts. Table ES-13 summarizes the physical roadway improvements proposed to mitigate the direct adverse impacts of the SOCTIIP Build Alternatives. For each impacted location, the summary table notes the scenario in which the direct adverse impact occurs (i.e., committed versus buildout circulation system and 14,000 DU proposed RMV versus 21,000 DU OCP-2000 RMV development plan) and the share of traffic that is attributed to the Build Alternative under which the impact occurs.

A direct adverse impact is considered to be mitigated when:

- The mitigation improves the facility to an acceptable LOS.

A direct adverse impact remains unmitigated when:

- The mitigation does not improve the facility to an acceptable LOS.
- No conventional physical improvements could be identified as mitigation (this only occurs at locations constructed as part of a given Build Alternative which are not forecast to operate at an acceptable LOS as currently designed and which could not be redesigned to meet the LOS standard).

The physical improvements listed in Table ES-13 mitigate the direct adverse impacts of the SOCTIIP Build Alternatives with the exception of the facilities that are summarized in Table ES-14 where the impacts remain unmitigated. The California Environmental Quality Act (CEQA) requires that each significant impact of a project be identified in an Environmental Impact Report (EIR). Table ES-13 summarizes the significant impacts of the SOCTIIP Build Alternatives, and the improvements listed in Table ES-13 mitigate the impacts to a level that is less than significant under CEQA with the exception of the locations listed in Table ES-14 where the impacts remain significant under CEQA after mitigation.

ES.5.7 SPECIAL ISSUES

Section 7.0 (Special Issues) addresses a number of special issues pertaining to the SOCTIIP Alternatives and to traffic and circulation in southern Orange County in general. None of the issues addressed in Section 7.0 directly affect the impacts and mitigation measures that were identified for the SOCTIIP Build Alternatives. The following special issues are addressed in Section 7.0:

- Year 2025 conditions based on the No Action Alternative and the committed circulation system are analyzed for the two special analysis scenarios involving the undeveloped RMV areas. One scenario assumes development of 6,250 DUs under the existing General Plan zoning designation that is in place for the RMV area, and the other scenario assumes no future development in the currently undeveloped RMV areas.

Table ES-13

SUMMARY OF DIRECT ADVERSE IMPACTS AND MITIGATION MEASURES

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Mitigation Measure	Analysis Scenarios (a) in which Direct Adverse Impacts Occur Under the Build Alternatives and Traffic Share Percentages of the Build Alternatives											Are the Impacts Mitigated or do they Remain Unmitigated?					
		FEC-M, FEC-W, & FEC-AFV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-7SV	A7C-REC-M, A7C-REC-V & A7C-FECV-AF	A7C-REC-C		AIO	AIP	I-5		
INTERSECTIONS Antonio Parkway & Crown Valley Parkway	Add fourth southbound through lane.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3 (2%)	Mitigated except for the AIO and AIP Alternatives where the impact is unmitigated assuming the at-grade improvement plan.	
	Add third eastbound left-turn lane.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3 (2%)		
	Implement at-grade improvement plan: add third eastbound and northbound left-turn lanes and provide eastbound free right-turn lane. Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Parkway.	--	--	--	--	--	--	--	--	--	--	--	3 (11%)	3 (10%)	--	--		
	Implement at-grade improvement plan: add fourth eastbound and westbound through lanes and third northbound, southbound, eastbound and westbound left-turn lanes, and provide westbound free right-turn lane. Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Parkway.	--	--	--	--	--	--	--	--	--	--	--	--	--	4 (11%)	4 (10%)	--	

Table ES-13 (cont)
SUMMARY OF DIRECT ADVERSE IMPACTS AND MITIGATION MEASURES

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Mitigation Measure	Analysis Scenarios (a) in which Direct Adverse Impacts Occur Under the Build Alternatives and Traffic Share Percentages of the Build Alternatives											Are the Impacts Mitigated or do they Remain Unmitigated?				
		FEC, FEC-M, & FEC-W, & FEC-AFV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-TSV	A7C-FECV, A7C-FEC-M & A7C-FECV-AF	A7C-FECV-C		AIO	AIP	I-5	
INTERSECTIONS (cont) Antonio Parkway-La Pata Avenue & Ortega Highway	Add second westbound through lane.	--	--	--	1 (1%)	--	--	1 (13%)	--	--	--	--	--	--	--	--	Mitigated except for the AIO and AIP Alternatives where the impact is unmitigated only in Scenario 4
	Provide southbound free right-turn lane.	--	--	--	1 (1%)	--	--	1,3 (13%)	--	--	--	--	--	--	1,3 (2%)	--	assuming either the at-grade or grade separated improvement plan and for the I-5 Alternative where the impact is unmitigated only in Scenario 4.
	Provide northbound free right-turn lane.	--	--	--	--	--	--	3 (13%)	--	--	--	--	--	--	--	4 (2%)	
	Convert second northbound through lane to shared second through/second right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Implement at-grade improvement plan: provide southbound free right-turn lane. Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Parkway-La Pata Ave.	Implement at-grade improvement plan: add third eastbound and westbound through lanes and third southbound and westbound left-turn lanes, and provide northbound, southbound and westbound free right-turn lanes. Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Parkway-La Pata Ave.	--	--	--	--	--	--	--	--	--	--	--	--	--	3 (3%)	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	4 (5%)	4 (3%)	--

Table ES-13 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS AND MITIGATION MEASURES																
Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Mitigation Measure	Analysis Scenarios (a) in which Direct Adverse Impacts Occur Under the Build Alternatives and Traffic Share Percentages of the Build Alternatives											Are the Impacts Mitigated or do they Remain Unmitigated?			
		FEC, REC-M, & REC-W	FEC-AFV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-TSV	A7C-FECV, A7C-FEC-M & A7C-FECV-AF		A7C-FECV-C	AIO	AIP
INTERSECTIONS (cont)																
Antonio Parkway & North River Road Antonio Parkway & Oso Parkway	Add third southbound and westbound left-turn lanes.	--	--	--	--	--	--	--	--	--	--	--	3 (12%)	3 (11%)	--	Mitigated.
	Add fourth southbound through lane and third northbound left-turn lane, and convert eastbound right-turn lane to a free right-turn lane.	--	--	--	--	1 (4%)	--	--	--	--	--	--	--	--	--	--
Avenida Empresa & Avenida De Las Banderas Avenida Empresa & Santa Margarita Parkway	Implement at-grade improvement plan: add fourth eastbound and westbound through lanes and third northbound, eastbound and westbound left-turn lanes, and provide northbound and westbound free right-turn lanes. Or implement grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Parkway.	--	--	--	--	--	--	--	--	--	--	--	3,4 (16%)	3,4 (14%)	--	Mitigated.
	Add second eastbound left-turn lane.	--	--	--	--	--	--	--	--	--	--	--	3,4 (2%)	3 (1%)	--	Mitigated.
Avenida La Pata & Avenida Pico	Convert eastbound right-turn lane to a free right-turn lane and add northbound shared third left-turn lane/through lane. Add third northbound through lane.	--	--	--	--	--	--	--	--	--	--	--	3,4 (4%)	3,4 (4%)	--	Mitigated.
	Add second eastbound left-turn lane.	--	--	--	--	--	--	3 (7%)	3 (7%)	--	--	--	--	--	--	Mitigated.
	Convert second northbound through lane to shared second through/second right-turn lane.	--	--	--	--	--	--	1 (20%)	1 (20%)	--	--	--	--	--	--	Mitigated.
	Implement at-grade improvement plan: add third northbound through lane and second and third eastbound left-turn lanes, and provide westbound free right-turn lane. Or implement grade separated improvement plan: signalized control of all intersection movements except eastbound and westbound through traffic on Avd Pico.	--	--	--	--	--	--	--	1,3 (16%)	1,3 (16%)	--	--	--	3,4 (26%)	3,4 (23%)	--

Table ES-13 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS AND MITIGATION MEASURES																	
Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Mitigation Measure	Analysis Scenarios (a) in which Direct Adverse Impacts Occur Under the Build Alternatives and Traffic Share Percentages of the Build Alternatives										Are the Impacts Mitigated or do they Remain Unmitigated?					
		FEC-W, & FEC-M, & FEC-AFV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-7SV	A7C-FECV, A7C-FEC-M & A7C-FECV-AF		A7C-FECV-C	AIO	AIP	I-5	
INTERSECTIONS (cont)																	
Avenida La Pata & Avenida Vista Hermosa	Add third eastbound through lane.	--	--	--	--	--	--	--	--	--	--	1,3 (22%)	--	--	--	--	Mitigated.
	Add second westbound left-turn lane.	--	--	--	--	--	--	--	--	--	--	1,3 (22%)	3,4 (16%)	3,4 (18%)	--	--	Mitigated.
	Add fourth southbound through lane, third westbound through lane, second southbound and eastbound left-turn lanes, and westbound right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	3,4 (16%)	3,4 (18%)	--	--	Mitigated.
Avenida Talega & Avenida Vista Hermosa	Add third westbound through lane.	--	--	--	--	--	--	--	--	--	1 (37%)	--	--	--	--	--	Mitigated.
Avenida Vista Hermosa & Avenida Pico	Add westbound right-turn lane.	--	--	--	--	--	--	1 (32%)	--	--	--	--	--	--	--	--	Mitigated.
Camino Capistrano & San Juan Creek Road	Add westbound right-turn lane and convert third eastbound through lane to third eastbound left-turn lane.	--	--	--	--	--	--	--	--	--	1 (31%)	--	--	--	--	--	Mitigated.
	Convert second northbound through lane to shared second through/second right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	--	--	4 (10%)	--	Mitigated.
Camino Capistrano & Stonehill Drive	Add second eastbound through lane and northbound right-turn lane, and convert second southbound through lane to shared second through/second right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	--	--	1 (8%)	--	Mitigated.
	Add third eastbound and westbound through lanes and second southbound left-turn lane.	--	--	--	--	--	--	--	--	--	1 (10%)	--	--	--	--	--	Mitigated.
Felipe Road & Oso Parkway	Add fourth westbound through lane.	--	--	--	--	--	--	--	--	--	--	--	3,4 (4%)	3,4 (4%)	--	--	Mitigated.
	Add fourth eastbound through lane and second southbound left-turn lane, and convert second northbound through lane to shared second through/second right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	3,4 (4%)	3,4 (4%)	4 (4%)	--	Mitigated.

Table ES-13 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS AND MITIGATION MEASURES																	
Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Mitigation Measure	Analysis Scenarios (a) in which Direct Adverse Impacts Occur Under the Build Alternatives and Traffic Share Percentages of the Build Alternatives															
		FEC-W, & FEC-M, & FEC-AFV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-7SV	A7C-FECV, A7C-FEC-M, & A7C-FECV-AF	A7C-FECV-C	AIO	AIP	I-5	Are the Impacts Mitigated or do they Remain Unmitigated?	
INTERSECTIONS (cont)																	
I-5 northbound ramps & Avenida Pico	Add third eastbound through lane.	--	--	--	1,3 (13%)	--	1,3 (17%)	--	--	1,3 (13%)	--	1,3 (19%)	--	3,4 (8%)	--	--	Mitigated except for the FEC-TV, CC, A7C and A7C-7SV Alternatives where the impact is unmitigated and for the FEC-APV, CC-ALPV and A7C-ALPV Alternatives where the impact is unmitigated only in Scenario 1.
	Add second eastbound left-turn lane.	--	--	--	1,3 (13%)	--	1,3 (17%)	--	--	1,3 (13%)	--	--	--	--	--	--	Mitigated.
	No conventional intersection improvements could be identified.	--	--	--	--	--	1,3,4 (19%)	--	1,3,4 (19%)	--	--	1,3 (19%)	--	--	--	--	Mitigated.
I-5 southbound ramps & Avenida Pico	Add second westbound left-turn lane.	--	--	--	3 (13%)	--	--	--	3 (13%)	--	--	--	3 (4%)	3,4 (13%)	--	--	Mitigated.
	Reconstruct intersection as part of ramp improvement to provide separate southbound on-ramps from eastbound and westbound Avenida Pico.	--	--	--	--	--	1,3 (21%)	--	1,3 (20%)	--	--	--	--	--	--	--	Mitigated.
I-5 northbound ramps & Crown Valley Parkway	Add fourth eastbound through lane.	--	--	--	--	--	--	--	--	--	--	--	--	--	4 (8%)	--	Mitigated.
	Add third eastbound through lane and northbound left-turn lane, and convert second westbound through lane to shared second through/second right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	1 (3%)	--	--	--	Mitigated.
I-5 southbound ramps & Ortega Highway	Add second westbound left-turn lane.	--	--	--	--	--	--	--	--	--	--	--	1 (4%)	--	--	--	Mitigated.
	Add northbound shared second left-turn/second right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	--	--	1 (4%)	--	Mitigated.
I-5 northbound ramps & Oso Parkway	Add second westbound left-turn lane.	--	--	--	1 (1%)	--	--	--	--	--	--	--	1 (6%)	--	--	--	Mitigated.
	Add second westbound through lane and southbound right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	1 (3%)	--	--	--	Mitigated.
La Novia Avenue & Ortega Highway	Add second eastbound left-turn lane.	--	--	--	3 (3%)	--	--	--	--	--	--	--	3 (5%)	--	--	--	Mitigated.
	Modify southbound approach to provide a left-turn lane and a shared through/right-turn lane and eliminate north/south split phasing.	--	--	--	--	--	--	--	--	--	--	--	--	--	4 (5%)	--	Mitigated.

Table ES-13 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS AND MITIGATION MEASURES		Analysis Scenarios (a) in which Direct Adverse Impacts Occur Under the Build Alternatives and Traffic Share Percentages of the Build Alternatives											Are the Impacts Mitigated or do they Remain Unmitigated?			
Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Mitigation Measure	FEC-FEC-M, & A7C-ALPV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-7SV	A7C-FEC-M, A7C-FEC-M & A7C-FECV-AF	A7C-FECV-C		AIO	AIP	I-5
INTERSECTIONS (cont)																
Marguerite Parkway & Avery Parkway	Add southbound right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	--	--	4 (3%)	Mitigated.
Marguerite Parkway & Crown Valley Parkway	Add third northbound through lane and convert second southbound through lane to shared second through/second right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	--	--	1 (2%)	Unmitigated in the I-5 Alternative.
Marguerite Parkway & Jeronimo Road	Add second northbound left-turn lane.	--	--	--	--	--	--	--	--	--	--	--	4 (6%)	4 (5%)	--	Mitigated.
Puerta Real & Crown Valley Parkway	Convert southbound through lane to shared through/second right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	--	--	4 (3%)	Mitigated.
Rancho Viejo Road & Ortega Highway	Add third eastbound through lane.	--	--	--	--	--	--	--	1 (2%)	--	--	--	--	--	1 (2%)	Mitigated.
SR 241 northbound ramps & Antonio Parkway	Convert third westbound through lane to shared third through/second right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	3 (3%)	3 (2%)	--	Mitigated.
SR 241 northbound ramps & Oso Parkway	Add third westbound through lane, second eastbound left-turn lane, and second eastbound right-turn lane.	--	--	--	--	--	--	--	--	--	--	--	3,4 (14%)	3,4 (11%)	--	Unmitigated in the AIO and AIP Alternatives.
SR 241 southbound ramps & Oso Parkway	Add third eastbound through lane.	--	--	--	--	--	--	--	--	--	--	--	4 (17%)	4 (15%)	--	Mitigated.
Valle Road & La Novia Avenue/I-5 northbound ramps	Add second eastbound left-turn lane.	--	--	--	--	--	--	--	3 (4%)	--	--	--	--	--	--	Mitigated.
FREEWAY/TOLLWAY RAMP																
I-5 northbound off-ramp at Avenida Pico	Add second drop lane from I-5 to the off-ramp.	--	--	--	--	1,3 (36%)	--	1,3 (36%)	--	--	--	--	--	--	--	Mitigated.
I-5 northbound on-ramp at Avenida Pico	Widen to a two-lane on-ramp.	--	1,3,4 (58%)	--	--	1 (6%)	1,3,4 (58%)	1,3 (6%)	--	1,3 (57%)	--	--	--	--	1 (5%)	Mitigated except for the FEC-TV, CC, A7C and A7C-7SV Alternatives where the impact is unmitigated.
I-5 southbound off-ramp at Avenida Pico	Add second auxiliary lane from I-5 to the off-ramp.	--	1,3,4 (58%)	--	--	--	1,3,4 (58%)	--	--	1,3 (59%)	--	--	--	--	--	Unmitigated in the FEC-TV, CC, A7C and A7C-7SV Alternatives.

Table ES-13 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS AND MITIGATION MEASURES																
Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Mitigation Measure	Analysis Scenarios (a) in which Direct Adverse Impacts Occur Under the Build Alternatives and Traffic Share Percentages of the Build Alternatives														
		FEC, FEC-M, & FEC-W	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-TSV	A7C-FECV, A7C-FEC-M, & A7C-FECV-AF	A7C-FECV-C	AIO	AIP	I-5	Are the Impacts Mitigated or do they Remain Unmitigated?
FREEWAY/TOLLWAY RAMPS (cont)																
I-5 southbound on-ramp at Avenida Pico	Provide separate on-ramps from eastbound and westbound Avenida Pico. Widen to a two-lane on-ramp.	--	--	--	--	1,3 (34%)	--	1,3 (35%)	--	--	--	--	--	--	--	Mitigated except for the FEC-APV, CC-ALPV and A7C-ALPV Alternatives where the impact is unmitigated.
I-5 northbound direct on-ramp at Avenida Vista Hermosa	Widen to a two-lane on-ramp.	--	--	--	--	--	--	--	--	--	--	--	--	1 (4%)	1	Mitigated.
I-5 southbound off-ramp at Avenida Vista Hermosa	Add second auxiliary lane from I-5 to the off-ramp.	--	--	--	--	--	--	--	--	--	--	--	--	1 (16%)	1	Mitigated.
I-5 northbound direct on-ramp at Crown Valley Parkway	Widen to a two-lane on-ramp.	--	--	--	--	--	--	--	--	--	--	--	--	3 (6%)	3, 4 (9%)	Mitigated except for the I-5 Alternative where the impact is unmitigated only in Scenario 4.
I-5 southbound off-ramp at Crown Valley Parkway	Add second auxiliary lane from I-5 to the off-ramp.	--	--	--	--	--	--	--	--	--	--	--	--	3 (5%)	3, 4 (11%)	Unmitigated in the AIO, AIP and I-5 Alternatives.
I-5 northbound on-ramp at Ortega Highway	Widen to a two-lane on-ramp or provide separate on-ramps from eastbound and westbound Ortega Highway.	--	--	--	--	--	--	--	--	--	--	--	--	4 (5%)	--	Mitigated.
I-5 southbound off-ramp at Ortega Highway	Add second auxiliary lane from I-5 to the off-ramp.	--	--	--	--	--	--	--	--	--	--	--	--	3, 4 (9%)	1, 3, 4 (9%)	Mitigated.
I-5 southbound off-ramp at Oso Parkway	Add second drop lane from I-5 to the off-ramp.	--	--	--	--	--	--	--	--	--	--	--	--	3 (2%)	--	Mitigated.
I-5 northbound on-ramp at Stonehill Drive	Widen to a two-lane on-ramp.	--	--	--	--	--	--	--	--	--	--	--	--	3, 4 (6%)	1, 3, 4 (16%)	Mitigated except for the I-5 Alternative where the impact is unmitigated.
SR 241 northbound on-ramp at Antonio Parkway	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	--	--	--	--	--	--	--	--	--	--	--	--	3 (2%)	--	Mitigated.
SR 241 southbound off-ramp at Antonio Parkway	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	--	--	--	--	--	--	--	--	--	--	--	--	3, 4 (6%)	--	Mitigated.

Table ES-13 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS AND MITIGATION MEASURES																	
Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Mitigation Measure	Analysis Scenarios (a) in which Direct Adverse Impacts Occur Under the Build Alternatives and Traffic Share Percentages of the Build Alternatives															
		FEC-W, & FEC-M, & FEC-APV	FEC-TV	FEC-CV	FEC-OHV	FEC-APV	CC	CC-ALPV & A7C-ALPV	CC-OHV & A7C-OHV	A7C & A7C-TSV	A7C-FECV, A7C-FEC-M & A7C-FECV-AP	A7C-FECV-C	AIO	AIP	I-5	Are the Impacts Mitigated or do they Remain Unmitigated?	
FREEWAY/TOLLWAY RAMPS (cont)																	
SR 241 northbound on-ramp at Oso Parkway	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	--	--	--	--	--	--	--	--	--	--	--	3,4 (18%)	3,4 (15%)	--		Mitigated except for the AIO and AIP Alternatives where the impact is unmitigated only in Scenario 4.
SR 241 southbound off-ramp at Oso Parkway	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	--	--	--	--	--	--	--	--	--	--	--	4 (21%)	4 (18%)	--		Mitigated.

(a) The assumptions for each scenario are as follows:
 Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
 Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
 Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

SUMMARY OF DIRECT ADVERSE IMPACTS THAT REMAIN SIGNIFICANT UNDER CEQA AFTER MITIGATION		
Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative INTERSECTIONS	Jurisdiction	Build Alternative(s) and Analysis Scenario(s) in which the Direct Adverse Impacts Remain Significant After Mitigation (a)
Antonio Parkway & Crown Valley Parkway	County of Orange	<ul style="list-style-type: none"> AIO and AIP Alternatives under Scenario 3 with the proposed at-grade improvement plan.
Antonio Parkway-La Pata Avenue & Ortega Highway	County of Orange	<ul style="list-style-type: none"> AIO and AIP Alternatives under Scenario 4 with either the proposed at-grade or grade separated improvement plan. I-5 Alternative under Scenario 4.
Antonio Parkway & Oso Parkway	County of Orange	<ul style="list-style-type: none"> AIO and AIP Alternatives under Scenarios 3 and 4 with either the proposed at-grade or grade separated improvement plan.
I-5 northbound ramps & Avenida Pico	San Clemente	<ul style="list-style-type: none"> FEC-TV (Initial and Ultimate) and CC (Initial and Ultimate) Alternatives under Scenarios 1, 3 and 4. A7C (Initial and Ultimate) and A7C-7SV (Initial and Ultimate) Alternatives under Scenarios 1 and 3. FEC-APV (Initial and Ultimate), CC-ALPV (Initial and Ultimate) and A7C-ALPV (Initial and Ultimate) Alternatives under Scenario 1. I-5 Alternative under Scenario 1.
Marguerite Parkway & Crown Valley Parkway	Mission Viejo	
SR 241 northbound ramps & Oso Parkway	Rancho Santa Margarita	<ul style="list-style-type: none"> AIO and AIP Alternatives under Scenarios 3 and 4.
FREEWAY/TOLLWAY RAMPS		
I-5 northbound on-ramp at Avenida Pico	Caltrans/San Clemente	<ul style="list-style-type: none"> FEC-TV (Initial and Ultimate) and CC (Initial and Ultimate) Alternatives under Scenarios 1, 3 and 4. A7C (Initial and Ultimate) and A7C-7SV (Initial and Ultimate) Alternatives under Scenarios 1 and 3.
I-5 southbound off-ramp at Avenida Pico	Caltrans/San Clemente	<ul style="list-style-type: none"> FEC-TV (Initial and Ultimate) and CC (Initial and Ultimate) Alternatives under Scenarios 1, 3 and 4. A7C (Initial and Ultimate) and A7C-7SV (Initial and Ultimate) Alternatives under Scenarios 1 and 3.
I-5 southbound on-ramp at Avenida Pico	Caltrans/San Clemente	<ul style="list-style-type: none"> FEC-APV (Initial and Ultimate), CC-ALPV (Initial and Ultimate) and A7C-ALPV (Initial and Ultimate) Alternatives under Scenario 1.
I-5 northbound direct on-ramp at Crown Valley Parkway	Caltrans/Mission Viejo	<ul style="list-style-type: none"> I-5 Alternative under Scenario 4.

Table ES-14

Table ES-14 (cont)
SUMMARY OF DIRECT ADVERSE IMPACTS THAT REMAIN SIGNIFICANT UNDER CEQA AFTER MITIGATION

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Jurisdiction	Build Alternative(s) and Analysis Scenario(s) in which the Direct Adverse Impacts Remain Significant After Mitigation (a)
FREEWAY/TOLLWAY RAMP (cont)		
I-5 southbound off-ramp at Crown Valley Parkway	Caltrans/Mission Viejo	<ul style="list-style-type: none"> • AIO and AIP Alternatives under Scenario 3. • I-5 Alternative under Scenarios 3 and 4.
I-5 northbound on-ramp at Stonehill Drive	Caltrans/ San Juan Capistrano	<ul style="list-style-type: none"> • I-5 Alternative under Scenarios 1, 3 and 4.
SR 241 northbound on-ramp at Oso Parkway	Caltrans/ Rancho Santa Margarita	<ul style="list-style-type: none"> • AIO and AIP Alternatives under Scenario 4.

(a) The assumptions for each scenario are as follows:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV

- Year 2025 conditions based on toll-free operation of the existing toll roads in Orange County and the FTC-S are analyzed for the FEC, CC and A7C Alternatives.
- A capacity evaluation is carried out for the FTC-S/I-5 confluence that is formed by the Far East and Central Corridor alignments of the FTC-S.
- The geographic composition (i.e., origins and destinations) of traffic on the FTC-S is summarized for each of the SOCTIIP Build Alternatives that include construction of the FTC-S.

SECTION 1.0 INTRODUCTION

1.1 BACKGROUND

This report summarizes the results of the traffic study that was conducted for the South Orange County Transportation Infrastructure Improvement Project (SOCTIIP). The current Environmental Impact Statement/Subsequent Environmental Impact Report (EIS/SEIR) for the SOCTIIP represents the latest stage of analysis for the future circulation system in southern Orange County. Considerable transportation planning work has been carried out in the south Orange County area over the past 15 to 20 years, specifically with respect to the southern extension of the Foothill Transportation Corridor (FTC). In 1981, the County of Orange certified Final EIR 123 which resulted in a conceptual alignment for a transportation corridor facility to be placed on the County's Master Plan of Arterial Highways (MPAH). The MPAH shows the alignment of the existing FTC-North (FTC-N) and a conceptual alignment for the FTC-South (FTC-S).

In the mid-1980s, a FTC alternative alignment analysis was conducted to identify alternative alignments for the FTC-S to be carried forward for evaluation in an EIR. The Transportation Corridor Agency (TCA) certified TCA Final EIR No. 3 in 1991, which evaluated alternative FTC-S alignments and also identified a locally preferred alternative for the FTC-S. In December 1993, the TCA initiated the preparation of a Subsequent EIR to further evaluate the alternatives that were studied in TCA Final EIR No. 3, and concurrently, the Federal Highway Administration (FHWA) initiated the preparation of an Environmental Impact Statement (EIS) for the project. Between 1993 and 1996, technical analysis was conducted for that EIS/SEIR, however the 1993 EIS/SEIR process was not completed and has been superseded by the current EIS/SEIR.

In 1996, as a result of the 1994 National Environmental Policy Act and Clean Water Act Section 404 Integration Process Memorandum of Understanding (NEPA/Section 404 MOU), the TCA initiated coordination to implement the MOU policies in developing the EIS and Section 404 permitting for the project, and it was during this time that the project began to be referred to as the SOCTIIP. The NEPA/Section 404 MOU applies to all projects requiring FHWA action under NEPA and a United States Army Corps of Engineers (ACOE) individual permit under Section 404 of the Clean Water Act. The signatory agencies to the NEPA/Section 404 MOU include FHWA, ACOE, the United States Environmental Protection Agency (EPA), the United States Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS) and the California Department of Transportation (Caltrans).

The NEPA/Section 404 MOU signatory agencies and the TCA are collectively referred to as the SOCTIIP Collaborative. Between August 1999 and November 2000, the SOCTIIP Collaborative undertook an objective facilitated process to specifically develop a list of alternatives to be evaluated in the current EIS/SEIR. In November 2000, the SOCTIIP Collaborative concurred on a set of alternatives which are the subject of this traffic study. The SOCTIIP Collaborative defined a number of alternative circulation system plans for southern Orange County, including a

set of alternative alignments for the FTC-S, variations within each FTC-S alignment alternative, and alternatives that include arterial and/or freeway improvements instead of the FTC-S. The primary objective of this traffic and circulation analysis is to provide an understanding of traffic conditions in southern Orange County and to evaluate the various SOCTIIP Alternatives related to their beneficial and adverse effects on the circulation system in southern Orange County.

1.2 OVERVIEW OF THE TRAFFIC ANALYSIS

The primary objective of this traffic and circulation analysis is to provide an understanding of traffic conditions in southern Orange County and to evaluate various alternative plans for the future circulation system in southern Orange County. The traffic analysis specifically considered two basic sets of parameters for assessing the potential beneficial and adverse effects of the SOCTIIP Alternatives related to circulation.

The first group of parameters addresses specific operating and level of service (LOS) conditions that would occur under each alternative at specific locations on the circulation system. These include general parameters such as the reduction in average daily traffic (ADT) on Interstate 5 (I-5) under the various alternatives. These parameters also include identification of peak hour deficiencies at specific individual facilities in the SOCTIIP study area, including intersections, freeway ramps, and freeway mainline segments. This first group of parameters allows an understanding of how individual facilities would operate during peak conditions under each of the SOCTIIP Alternatives. However, these parameters do not provide a complete picture of the systemwide benefits of the individual alternatives related to the circulation system in the SOCTIIP study area.

The second group of parameters in the traffic study specifically considers the systemwide effectiveness of the SOCTIIP Alternatives in meeting traffic needs for the sub-regional circulation system in south Orange County. These measures of effectiveness provide systemwide and point-to-point travel time savings for persons traveling in the south Orange County sub-region and congestion levels on I-5 and the arterial road system in the SOCTIIP study area. The measures of effectiveness allow for comparison of the performance of the SOCTIIP Build Alternatives to each other and to the No Action Alternative.

As a result, these multiple parameters provide information that allows an understanding of the benefits and effects of the SOCTIIP Alternatives at two levels:

- Specific beneficial and adverse effects on traffic operations at individual locations (intersections, freeway ramps, freeway segments) in south Orange County.
- Overall benefits for the sub-regional circulation system in south Orange County.

It is important to consider all these parameters together when assessing the relative merits of each of the SOCTIIP Alternatives and not to consider only one or two parameters without understanding the broader picture of beneficial and adverse effects on the circulation system. For example, the SOCTIIP Alternatives that include widening I-5 perform well when only parameters such as peak hour deficiencies and congestion levels on I-5 and point to point travel

times along the I-5 corridor are considered. This would be expected to occur because of the improvements that are made on I-5. However, those Alternatives do not necessarily outperform other SOCTIIP Alternatives that do not include widening I-5 when parameters such as systemwide travel time savings and levels of congestion on the arterial system are considered.

In converse, the SOCTIIP Alternatives that propose a toll corridor do not perform as well in reducing individual deficiencies on I-5, because they do not specifically propose improvements to I-5. However, they perform well in terms of systemwide travel time savings and other parameters that consider the performance of the sub-regional transportation system. In general, the SOCTIIP Alternatives that propose a toll corridor result in the greatest systemwide benefits for overall circulation in the SOCTIIP study area while the Alternatives that propose widening I-5 result in the greatest traffic benefits on I-5 and at the I-5 interchanges with local arterials.

1.3 OVERVIEW OF THE SOCTIIP ALTERNATIVES

The alternatives under consideration consist of several transportation improvement alternatives (referred to in this report as Build Alternatives) as well as several scenarios based on a No Action Alternative. The Build Alternatives include widening of I-5, arterial road improvements with and without widening I-5, and toll road corridors that would be southern extensions of the existing FTC. This toll road corridor, frequently referred to as the FTC-South or FTC-S, would extend south from the existing FTC terminus at Oso Parkway to I-5 at approximately the Orange/San Diego County border. The FTC-S is included in the Orange County MPAH, the long-range plan for the circulation system in the SOCTIIP study area.

1.3.1 SELECTION OF A PREFERRED ALTERNATIVE

The selection of a preferred alternative will be based on an evaluation of all the SOCTIIP Alternatives in the environmental analysis and determining which alternative best fulfills the purpose and need of the proposed project. Consideration will be given to a variety of economic, environmental, technical and social factors that will be evaluated for each alternative. Analytic and scientific data for each of the various factors will be the basis for comparison of the alternatives. No one factor will be considered as singly overriding in its influence to determine the preferred alternative, but must be considered in the overall context of all the factors being evaluated.

The SOCTIIP is also being evaluated under the National Environmental Policy Act and Clean Water Act Section 404 Memorandum of Understanding (NEPA/404 MOU) to improve integration of transportation projects requiring compliance with NEPA and Section 404 Guidelines. FHWA, Caltrans, ACOE and USFWS are participants with the TCA in evaluating the SOCTIIP Alternatives and in determining a preferred alternative based on evaluation of various factors and also the need to select the least environmentally damaging practicable alternative in order to obtain a Section 404 permit for the project.

1.3.2 I-5 AND ARTERIAL ALTERNATIVES

Caltrans is responsible for improvements to State Highways and, in conjunction with FHWA, has responsibility for improvements to the federal highway system in California. Traffic on the segment of I-5 in southern Orange County has steadily increased as the regional and local population has grown. Caltrans and FHWA do not have any long term plans or funding to widen or improve I-5 to accommodate this additional future traffic other than I-5 improvements that are included in the Regional Transportation Plan (RTP). Alternatives that include widening of I-5 beyond the RTP were incorporated in the range of alternatives being considered for the SOCTIIP as part of the NEPA/404 integration process. However, as described in the *Project Alternatives Technical Report*, if one of the I-5 widening alternatives is selected for implementation, there is no identified project proponent or funding source for these Alternatives, other than the I-5 improvements that are included in the RTP, and the TCA would not be the lead agency for implementing and would not provide or seek funding for financing these alternatives. As a result, because there is currently no project proponent or funds committed to improve I-5 beyond the RTP, there is a very limited possibility that the alternatives that include widening of I-5 beyond the RTP, if selected, would be built by the year 2025.

Similarly, the County of Orange and local jurisdictions are responsible for identifying future arterial roadway needs in the SOCTIIP study area and implementing any required improvements. Arterial improvements planned in the project area are included in the Orange County MPAH. As part of the NEPA/404 integration process, two arterial highway improvement alternatives that propose arterial improvements beyond those shown in the MPAH were identified and will be evaluated in the environmental and technical studies for the SOCTIIP. However, similar to I-5, there are no specific project proponents or funding currently identified for the arterial improvements under these two alternatives and the TCA would not be the lead agency for implementing and would not provide or seek funding for financing these alternatives.

Caltrans, the County of Orange and the local jurisdictions in the SOCTIIP study area continuously evaluate the circulation system (freeways and arterials) and pursue needed improvements as funding becomes available. For example, it is expected that Caltrans and the local jurisdictions in the SOCTIIP study area will identify and implement interchange and ramp improvements on I-5 by 2025 in response to demand and peak period deficiencies. However, as noted here, the SOCTIIP Alternatives that include widening I-5 and/or arterial improvements are not currently identified by any of these agencies as projects for which they would serve as lead agency or for which they have identified funding sources. It is likely that freeway and arterial improvements identified, funded and implemented by Caltrans and these local agencies by 2025 may be substantially less than the improvements identified in the freeway and arterial improvement alternatives considered in the SOCTIIP analysis.

The TCA is the project proponent and would be the lead agency in the implementation and funding of the SOCTIIP Alternatives that propose extension of the FTC south from its existing terminus at Oso Parkway. It is anticipated that if a toll road alternative is selected for implementation, that road would be operational by approximately 2007.

1.4 TRAFFIC ANALYSIS APPROACH AND METHODOLOGY

As mentioned earlier, the primary objective of this traffic and circulation analysis is to provide an understanding of traffic conditions in southern Orange County under the various SOCTIIP Alternatives. To accomplish this, a number of scenarios based on different assumptions with respect to future land use development and circulation system improvement were analyzed for the SOCTIIP Alternatives. Each of the scenarios was analyzed and evaluated based on year 2025 traffic conditions, a time frame that corresponds to the horizon year currently applied in the long-range transportation plans that are maintained by regional agencies such as the Orange County Transportation Authority (OCTA), the San Diego Association of Governments (SANDAG), and the Southern California Association of Governments (SCAG). For each scenario, various types of traffic forecast data were applied to determine forecasted deficiencies on the circulation system. Various measures of effectiveness were quantified based on the traffic forecast data so that the performance of the SOCTIIP Alternatives in south Orange County can be compared. The specific adverse impacts associated with the Build Alternatives were identified and mitigation measures that address the adverse impacts of each Build Alternative were developed.

1.4.1 STUDY AREA

The study area for the SOCTIIP traffic analysis is illustrated in Figure 1-1. This illustration also shows the alignments of the FTC-S corridor alternatives. In the alternatives that include widening of I-5, improvements are proposed along I-5 from approximately Interstate 405 (I-405) in the north to the Orange/San Diego County border in the south.

The study area encompasses a number of incorporated cities in Orange County including the Cities of Mission Viejo, San Juan Capistrano and San Clemente, and parts of the Cities of Rancho Santa Margarita, Laguna Hills, Laguna Niguel and Dana Point. Also included is the unincorporated part of Orange County from Rancho Santa Margarita to San Clemente which encompasses the communities of Las Flores, Ladera and Talega and the Rancho Mission Viejo (RMV) area. The study area also incorporates the northwest part of San Diego County, including a portion of Marine Corps Base (MCB) Camp Pendleton. Included in the study area is I-5 from the I-405 confluence in Orange County to south of Basilone Road in San Diego County. The study area was generally determined by comparing future traffic forecast data for the various SOCTIIP Alternatives and applying the following criteria:

- For arterial roads, the study area includes all facilities where peak hour intersection levels of service (LOSs) vary by one percent or more between alternatives. This is the impact threshold designated in the Growth Management Element of the Orange County General Plan.
- For freeways, the study area includes all facilities where peak hour volumes vary by more than three percent between alternatives. This is the impact threshold designated in the Orange County Congestion Management Program (CMP).

Hence, the circulation system outside the study area is not considered to be affected by the SOCTIIP Alternatives. Within the study area, all major intersections, arterial roadways, freeway/tollway mainline segments and freeway/tollway ramps were analyzed. The results of the analysis provide a comprehensive assessment of the study area circulation system.

1.4.2 TRAFFIC FORECASTING METHODOLOGY

Traffic forecast data for the analysis was prepared using the South (Orange) County Sub-Area Model (SCSAM). This traffic forecasting model is a focused sub-area model derived from the Orange County Transportation Analysis Model (OCTAM) and designed to provide detailed forecasting capability within the SOCTIIP traffic analysis study area. For a complete description of the SCSAM, refer to the *SOCTIIP Traffic and Circulation Technical Report – Traffic Model Description and Validation* (Austin-Foust Associates, Inc., December 2003).

The SCSAM is based on OCTAM Version 3.1 (OCTAM 3.1) which was adopted by the OCTA in June 2001 together with a set of sub-area model consistency guidelines which are outlined in the *Orange County Subarea Modeling Guidelines Manual* (Orange County Transportation Authority, June 2001). This manual provides sub-area modeling guidelines whose goal is to ensure consistency between local sub-area models and the adopted OCTAM regional model, as well as with the SCAG regional model. The guidelines have also been developed to comply with requirements of state and federal legislation including the Congestion Management Program (CMP), the Transportation Equity Act for the twenty-first century (TEA-21), and the state and federal Clean Air Acts. The CMP requires consistency in databases and modeling, while TEA-21 and the Clean Air Acts require improved analytical capabilities to evaluate and monitor transportation improvements, policies, plans and programs. The SCSAM has been certified by the OCTA as being in compliance with these guidelines.

For descriptive purposes, the modeling processes in the SCSAM can be divided into the following three general components:

1. Trip Generation
2. Trip Distribution/Mode Choice
3. Traffic Assignment

In the trip generation component of the traffic model, the amount of vehicle traffic generated by existing and future land use development is estimated. In the SCSAM, land use and demographic data is specified for traffic analysis zones (TAZs) that have been defined throughout the SOCTIIP traffic analysis study area. Vehicle trip generation estimates for the SCSAM are then produced by applying accepted trip generation rates.

In the trip distribution/mode choice component of the SCSAM, vehicle trip generation estimates are distributed using regional travel forecast data from the OCTAM model, thereby incorporating regional trip distribution patterns into the SCSAM. The regional traffic data is obtained from the OCTAM regional model in the form of vehicle trips, and hence also incorporates mode choice relationships (i.e., vehicle trips, transit trips, etc.) established in the OCTAM regional model.

The vehicle trip patterns from the distribution component are converted to actual traffic volumes on the roadway system in the traffic assignment component of the SCSAM. The traffic assignment used procedures that are sensitive to the capacity of the circulation system network and which are able to forecast peak hour and peak period (AM and PM), and ADT traffic volumes with reasonable reliability.

The traffic forecast data produced by the SCSAM for each of the analysis scenarios includes average daily traffic (ADT) volumes for arterial roadway and freeway/tollway mainline segments, AM and PM peak hour volumes for intersection locations on the arterial and freeway/tollway circulation network and for freeway/tollway ramps, and AM and PM peak hour and peak period volumes for freeway/tollway mainline segments. Other data generated from the SCSAM to evaluate the performance of the circulation system includes systemwide vehicle miles of travel (VMT) and vehicle hours of travel (VHT), and average travel times between different geographic areas under future traffic conditions.

Confidence Limits of the Traffic Model

Uncertainty in traffic forecasting models such as the OCTAM and the SCSAM is known to exist in or due to many components, including land use/socioeconomic data projections, highway network representation, parameter estimates, and sampling error. Uncertainty is also known to exist in the model specifications (formulas), because they endeavor to express complex human behaviors in simple mathematical terms. Customary traffic forecasting models such as the OCTAM and the SCSAM have no intrinsic means to quantify the amount of uncertainty in each of the various outputs that are produced by the models (e.g., peak hour or daily traffic volumes on individual roadways, travel times, and systemwide aggregations such as VMT and VHT). It is therefore often recommended that traffic models be used to compare and rank land use and circulation alternatives because the uncertainty of the difference between two forecasts from a model is less than the uncertainty of a single forecast, due to correlations. However, standard practices have been established to statistically validate the results that are produced by a traffic forecasting model such as the SCSAM.

The SCSAM traffic model description and validation report provides a series of statistical information to show how well the SCSAM validates to observed 2001 traffic conditions. The purpose of that information is to show a model validation that achieves certain criteria with respect to the comparison between modeled traffic volumes and actual traffic counts. Validation information is provided for daily, peak period and peak hour conditions, and uses modeled volume versus observed count comparisons for individual roadways and screenlines, as well as areawide comparisons by roadway types (e.g., freeways/tollways, divided arterials, undivided arterials, etc.). The validation information shows that the SCSAM is well within the recommended limits for forecasting traffic volumes at individual locations on the study area circulation system. Also, an aggregate comparison of modeled volumes and observed counts shows little bias, which indicates that the SCSAM is well validated for areawide measures such as VMT and VHT.

While the confidence intervals derived from the SCSAM validation results are a general measure of the corresponding accuracy or uncertainty of the model for forecasting purposes, they are

applicable only to new roadways in the study area. Existing roadways, which comprise most of the study area circulation system, have future volumes derived as part of a post-processing step in which existing traffic count data in combination with traffic model data is used to produce the future traffic forecasts. The accuracy limitations of the traffic model therefore apply only to the increment of traffic growth between existing and future conditions (i.e., the part that is actually “modeled”). Furthermore, comparative results for different future circulation alternatives involve even greater accuracy than absolute results because there is no change to most of the underlying assumptions or approximations inherent in the traffic modeling process. Hence, the differences in the results are primarily due to the differences in the alternatives (land use and/or circulation) being tested, with model approximations or uncertainties being a constant. The SCSAM therefore provides an acceptable level of accuracy for the comparative evaluation of the SOCTIIP alternatives because the statistical uncertainty in the traffic model does not significantly affect the comparison of the alternatives.

Induced Travel Demand

Travel modelers and planners have debated the concept of induced travel for decades, both because of the difficulties in measuring it and the misunderstandings about its definition and components. A definition of induced travel demand is provided in the publication *Accounting for Induced Travel in Evaluation of Urban Highway Expansion* (Federal Highways Administration), which describes induced travel as generally coming from the following sources:

- A change in trip generation (for example, either an increase in the number of person trips related to development or an increase in motorized person trips per development unit).
- A change in trip distribution (for example, an increase in average motorized person trip distance).
- A change in mode choice (for example, an increase in share of person travel by private motorized vehicles).
- A change in route choice (for example, a shift in vehicle travel to new or improved facilities from unimproved facilities within a corridor, or to an improved corridor due to diversion of traffic from other corridors).

The SCSAM follows nationally accepted “best practices” in the engineering profession. Such models are capable of forecasting induced travel demand that may occur when accessibility is improved in a transportation corridor due to circulation system improvements in that corridor. In a travel demand model, such induced travel is accounted for through differences in trip distribution, mode choice and route choice between transportation alternatives (demonstrating differences in trip generation due to transportation alternatives is difficult to assess without an integrated land use/transportation model). This is typically accomplished using “feedback loops” in which congested roadway speeds from a traffic assignment are looped back to the trip distribution and mode choice components of the travel demand model. This feedback process is sometimes referred to as “speed recycling” because it uses an iterative procedure to derive congested speeds for use in determining trip distribution and mode choice.

The OCTAM 3.1 regional model provides the capability to apply feedback loops for different transportation system alternatives. The approach adopted by the OCTA is to apply feedback loops in OCTAM 3.1 under certain specified conditions. Those conditions are based on average systemwide speeds for individual roadway classifications (e.g., freeways, divided arterial roads and undivided arterial roads). When the speeds that are input to the trip distribution and mode choice components of the model are more than five percent different than the speeds that are output from traffic assignment, then the speed recycling process is invoked. Tests by OCTA with circulation system alternatives in the SOCTIIP study area show the input and output speeds to be within five percent of each other. Because this is less than the threshold, the evaluation of the SOCTIIP Alternatives in the SOCTIIP traffic and circulation study used a “static” set of OCTAM 3.1 future trip distribution patterns.

To further evaluate whether feedback loops should be applied when modeling SOCTIIP Alternatives that would have substantially different amounts of capacity on the circulation system in the study area, the OCTA prepared OCTAM 3.1 sensitivity forecasts for significantly different SOCTIIP Alternatives using a trip distribution and mode choice feedback loop process, and the results were incorporated into the SCSAM. The OCTAM and SCSAM results indicated that the magnitude of improvement provided by the SOCTIIP Build Alternatives, (for example, in terms of traffic relief on I-5 and areawide reduction in VHT), is somewhat less when using different trip distributions based on feedback loops rather than a static trip distribution. However, the differences were relatively minor. For example, the SCSAM results indicated that the difference in the magnitude of improvement with and without feedback loops is no more than one percent of the peak hour or ADT volumes forecast on I-5, and less than one percent of the VMT or VHT forecast in southern Orange County. Based on these findings, and because the travel demand forecasting approach applied in the SOCTIIP traffic and circulation study (i.e., without feedback loops) is consistent with OCTA’s accepted OCTAM 3.1 procedures, the use of a static set of trip distribution patterns is considered an appropriate method for comparatively evaluating the SOCTIIP Alternatives in this traffic analysis.

1.4.3 LAND USE ASSUMPTIONS

The Orange County Projections-2000 (OCP-2000) demographic forecasts provide the primary set of year 2025 demographic data projections that were applied in this analysis. These growth projections were prepared by the Center for Demographic Research at the California State University Fullerton (CSUF) and were adopted by the Orange County Council of Governments (OCCOG), which is a subcommittee of the California League of Cities, in June 2000. The OCP-2000 projections, in combination with similar demographic forecasts prepared by SCAG for the remainder of the region, provide a year 2025 set of demographic projections that is consistent with transportation planning work carried out in the County of Orange and in the remainder of the region (for instance, these projections are applied in the OCTAM 3.1 regional model).

The OCP-2000 projections were prepared with substantial input from the local jurisdictions in Orange County, and the input is typically based on the Land Use Element of the local jurisdictions’ General Plans. Various Cities and unincorporated communities within the SOCTIIP study area maintain General Plan land use databases that are applied in their local traffic forecasting models. To maintain absolute consistency with these local jurisdictions, such

databases were incorporated into the version of the SCSAM model that was applied to generate traffic forecast data for this analysis. This approach was applied for the Cities of Mission Viejo, San Juan Capistrano and San Clemente and the unincorporated community of Ladera. Based on a review of the OCP-2000 projections and the local jurisdictions' General Plans, the General Plan land use data for each of these areas is generally consistent with the OCP-2000 projections because each of the three Cities and the community of Ladera are anticipated to reach General Plan buildout by 2025.

The Orange County General Plan Land Use Element includes a holding designation that is applied in undeveloped unincorporated areas where specific development proposals have yet to be submitted. The holding designation would allow residential uses at one dwelling unit (DU) for every four acres. Future development proposals in such areas require an amendment of the Land Use Element to establish an appropriate zoning designation for the proposed development plan. The holding designation is in place on approximately 10,100 hectares (25,000 acres) of currently undeveloped RMV land that is in the SOCTIIP study area and would result in around 6,250 residential DUs in that area. The OCP-2000 year 2025 projections include approximately 21,000 DUs for this area based on estimates of development potential as prepared by the County for input to the OCP-2000 preparation process.

In July 2001, the County of Orange received a development application from RMV for a plan that includes approximately 14,000 DUs for the RMV area. Through correspondence between the County of Orange and the OCTA, the County has indicated that transportation planning work in South Orange County should acknowledge this plan in addition to the adopted OCP-2000 projections. Consequently, in this report, separate analyses are conducted for the SOCTIIP Alternatives based on the two sets of projections for this area (i.e., the 21,000 DU OCP-2000 plan and the 14,000 DU proposed RMV plan).

Two additional special analysis scenarios involving the undeveloped RMV areas were studied based on the No Action Alternative, one which assumes development at the intensity allowed under the existing General Plan zoning designation that is in place for the RMV areas (this would result in the development of approximately 6,250 DUs as noted above), and another that assumes no future development in the currently undeveloped RMV areas. This approach provides for the analysis of a wide range of future land use development scenarios in the SOCTIIP study area.

1.4.4 HIGHWAY NETWORK ASSUMPTIONS

A fundamental part of the SOCTIIP traffic analysis pertains to the highway network upon which the various SOCTIIP Alternatives are superimposed. The Orange County MPAH, which is administered by the OCTA, provides a long-range circulation plan for the arterial system within the SOCTIIP study area. The RTP provides a long-range circulation plan for the regional circulation system. The RTP for the Counties of Orange, Los Angeles, Riverside, San Bernardino and Ventura is administered by SCAG, and the RTP for San Diego County is administered by SANDAG.

For the long-range analysis of the SOCTIIP Alternatives, two levels of future circulation system improvement were applied, one assuming implementation of only those MPAH and RTP

improvements that are currently funded and/or committed, and another assuming full buildout of the MPAH and RTP. Committed improvements include those that are in a capital improvement program of the County of Orange or the local jurisdictions within the study area, or projects that are currently funded by Caltrans. Also included in the committed highway network are improvements that will be built within the time period prior to the year 2025 by a specific funding source, for example the City of San Juan Capistrano's Reimbursement Agreement and Nexus Fee Program and the City of San Clemente's Regional Circulation Financing and Phasing Program (RCFPP). In addition, improvements that are part of conditions of approval for development that has been approved and is included in the long-range demographic data forecasts (i.e., OCP-2000 projections) are also assumed to be committed.

Regarding circulation system assumptions for the undeveloped RMV areas, although a specific roadway access plan has not formally been prepared for the 21,000 DU plan that is assumed in OCP-2000, through consultation with the OCTA and the County of Orange, those agencies have recommended the use of a general roadway plan that provides access between the RMV development areas and the surrounding MPAH arterial network. The access plan does not assume any changes to the current MPAH. This type of general access plan was also applied in the analysis of the scenario based on the existing General Plan zoning designations for RMV (i.e., 6,250 DU development plan). Through correspondence between the County of Orange and the OCTA, the County of Orange provided an access plan to apply in the analysis of the 14,000 DU proposed RMV plan. The access plan includes proposed changes to the MPAH. For the scenario in which no future RMV development is assumed, no additional roadway improvements beyond those that are currently included in the MPAH were assumed in the RMV area.

1.4.5 INITIAL AND ULTIMATE CORRIDOR ALTERNATIVES

For those SOCTIIP Alternatives that assume construction of the FTC-S corridor, each corridor alternative is proposed as an initial corridor alternative and an ultimate corridor alternative. The initial corridor alternatives are designed to serve traffic demand through year 2025, whereas the ultimate corridor alternatives are not anticipated to be needed until after 2025. The initial corridor alternatives assume that fewer travel lanes are provided on the FTC-S compared to the number of lanes for the ultimate corridor alternatives.

When modeling traffic forecasts for the corridor alternatives under year 2025 conditions with the FTC-S in operation as a toll road, the configuration of the FTC-S under the ultimate corridor alternative was assumed in order to determine the maximum traffic demand on the FTC-S. The resulting year 2025 traffic volumes on the FTC-S under tolled conditions can be accommodated by the corridor configuration in either the initial or ultimate corridor alternatives. This is an indication that the traffic volumes on the FTC-S would be approximately the same if the corridor were to be modeled based on the initial corridor alternative because the forecasted traffic volumes are not constrained by the capacity of the FTC-S. It was, therefore, not necessary to conduct separate year 2025 traffic analyses for the initial and ultimate corridor alternatives. However, to demonstrate worst case conditions, the capacity analysis summarized in this report for the corridor alternatives under year 2025 toll conditions is based on the initial corridor alternatives.

1.4.6 TOLL VERSUS TOLL-FREE CONDITIONS

Special scenarios that assume toll-free operation of the transportation corridors were also studied. Because the traffic demand on the FTC-S under 2025 toll-free conditions was found to exceed the capacity provided under the initial corridor alternatives, the FTC-S between Oso Parkway and I-5 was assumed to be built out to the configuration under the ultimate corridor alternatives in the toll-free scenarios.

1.5 PERFORMANCE CRITERIA AND STANDARDS

This Section discusses the performance criteria applied in the SOCTIIP traffic and circulation analysis. The performance criteria discussed here have a number of roles in the overall traffic and circulation analysis. While their primary function is to define impacts for the EIS/SEIR, there are some related aspects which affect how traffic forecast data is prepared and evaluated. In particular, the evaluation of traffic forecast data for the various SOCTIIP Alternatives involves deriving measures of effectiveness in addition to the basic impact measures. Accordingly, performance criteria are discussed here under two general headings, impact criteria and measures of effectiveness.

1.5.1 IMPACT CRITERIA

In most traffic technical studies, impact criteria are based on two primary measures. The first is “capacity” which establishes the vehicle carrying ability of a road segment and the second is “volume.” The volume measure is either a traffic count (in the case of existing volumes) or a traffic forecast for a future point in time. The ratio between the volume and the capacity gives a volume/capacity (V/C) ratio and based on that V/C ratio, a corresponding LOS is defined. Traffic LOSs are designated A through F with LOS A representing free flow conditions and LOS F representing severe traffic congestion. Traffic flow quality for the different LOSs are described in detail in Table 1-1.

Table 1-2 summarizes the V/C ranges that correspond to LOSs A through F for arterial roads and freeway segments. The V/C ranges listed for arterial roads are designated in the Orange County CMP and are also utilized by the County of Orange and by the local jurisdictions in the SOCTIIP study area. The V/C ranges listed for freeway segments are based on the V/C and LOS relationships specified in the *Highway Capacity Manual 2000 (HCM 2000)* (Transportation Research Board, National Research Council, 2000 Edition) for basic freeway sections with free-flow speeds of 105 kilometers per hour (65 miles per hour).

Both the V/C ratio and the LOS are used in identifying impacts. Certain LOS values are deemed acceptable by the various governing jurisdictions within the traffic analysis study area and increases in the V/C ratio which cause or contribute to the LOS being unacceptable are defined as an adverse impact.

This V/C approach is typical throughout the industry. However, in establishing V/C based performance criteria, there are certain issues which need to be addressed to obtain suitable V/C estimates and relate them to LOS. For instance, while ADT is a useful measure to show general

Table 1-1

LEVEL OF SERVICE DESCRIPTIONS

LOS	Arterial Roads	Freeway Segments
A	Describes primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the given street class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.	Describes free-flow operations. Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The effects of incidents or point breakdowns are easily absorbed at this level.
B	Describes reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the street class. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.	Represents reasonably free flow, and free-flow speeds are maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.
C	Describes stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than at LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the free-flow speed for the street class.	Provides for flow with speeds at or near the free-flow speed of the freeway. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. Minor incidents may still be absorbed, but the local deterioration in service will be substantial. Queues may be expected to form behind any significant blockage.
D	Borders on a range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors. Average travel speeds are about 40 percent of free-flow speed.	The level at which speeds begin to decline slightly with increasing flows and density begins to increase somewhat more quickly. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions.

Table 1-1 (cont)
LEVEL OF SERVICE DESCRIPTIONS

LOS	Arterial Roads	Freeway Segments
E	<p>Characterized by significant delays and average travel speeds of 33 percent or less of the free-flow speed. Such operations are caused by a combination of adverse signal progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.</p>	<p>At its highest density value, LOS E describes operation at capacity. Operations at this level are volatile, because there are virtually no usable gaps in the traffic stream. Vehicles are closely spaced, leaving little room to maneuver within the traffic stream at speeds that still exceed 49 miles per hour. Any disruption of the traffic stream, such as vehicles entering from a ramp or a vehicle changing lanes, can establish a disruption wave that propagates throughout the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate even the most minor disruption, and any incident can be expected to produce a serious breakdown with extensive queuing. Maneuverability within the traffic stream is extremely limited, and the level of physical and psychological comfort afforded the driver is poor.</p>
F	<p>Characterized by urban street flow at extremely low speeds, typically one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.</p>	<p>Describes breakdowns in vehicular flow. Such conditions generally exist within queues forming behind breakdown points. LOS F operations within a queue are the result of a breakdown or bottleneck at a downstream point. LOS F is also used to describe conditions at the point of the breakdown or bottleneck and the queue discharge flow that occurs at speeds lower than the lowest speed for LOS E, as well as the operations within the queue that forms upstream. Whenever LOS F conditions exist, they have the potential to extend upstream for significant distances.</p>

Source: *Highway Capacity Manual 2000 (HCM 2000)*, Transportation Research Board, National Research Council.

Table 1-2
 VOLUME/CAPACITY RATIO LEVEL OF SERVICE RANGES

Level of Service (LOS)	----- Volume/Capacity (V/C) Ratio Range (a)-----	
	Arterial Roads and Intersections	Freeway Segments
A	0.00 – 0.60	0.00 – 0.30
B	0.61 – 0.70	0.31 – 0.50
C	0.71 – 0.80	0.51 – 0.71
D	0.81 – 0.90	0.72 – 0.89
E	0.91 – 1.00	0.90 – 1.00
F	Above 1.00	Above 1.00

(a) Sources are as follows:

Arterial road and intersection V/C ranges: *2001 Orange County Congestion Management Program*, Orange County Transportation Authority.

Freeway segment V/C ranges: *Highway Capacity Manual 2000 (HCM 2000)*, Transportation Research Board, National Research Council.

levels of traffic on a facility and to provide data for other related analyses such as noise and air quality, ADT is not used in this analysis as the basis for capacity evaluation. The reason is that traffic congestion is largely a peak hour or peak period occurrence and ADT does not reflect peak conditions very effectively. As a result, this evaluation focuses on those parts of the day when such congestion typically occurs.

The impact criteria applied in the SOCTIIP traffic and circulation analysis are separated according to three fundamental components of the circulation system, freeway/tollway mainline segments, freeway/tollway ramps, and arterial roads. Peak hour data (AM and PM) is used in all cases to establish V/C and LOS measures and to define what constitutes an adverse traffic impact. The following Sections describe the impact criteria (i.e., V/C calculation methodology, LOS performance standards, and traffic impact thresholds) that were applied in this analysis for the three circulation system components.

1.5.1.1 Impact Criteria for Freeway/Tollway Mainline Segments

The impact analysis for freeway/tollway mainline segments is based on peak hour volumes by direction. Because the traffic forecast data includes locations and scenarios in which the future traffic demand exceeds the one hour capacity of certain freeway segments, peak period volumes are also used to evaluate freeway performance. The peak hour measure defines the V/C ratios to be used for the impact analysis. When a peak hour V/C ratio for a freeway segment exceeds the theoretical (and practical) maximum V/C of 1.0, the actual value is reported, even though it is recognized that this demand cannot be accommodated during the peak hour. In such cases the excess peak hour demand would spread into a peak period that lasts more than one hour, meaning that more motorists would try to avoid the peak hours by traveling before or after the peak hours. The degree to which spreading into the peak period occurs is one of the measures of effectiveness that is used in the overall evaluation of the performance of the SOCTIIP Alternatives.

Capacities for calculating peak hour V/C ratios for freeway and tollway mainline segments are based on information contained in the *Highway Design Manual* (Caltrans, July 1995) and have been verified through discussions with Caltrans staff in 2002 and 2003. The Caltrans manual cites 2,000 vehicles per hour per lane (vphpl) as the ideal maximum capacity for mixed-flow mainline freeway lanes operating at LOS E. This capacity is consistent with all national standards and planning procedures that have been established for conducting freeway analysis, including the procedures prescribed in the *HCM 2000* (Transportation Research Board, National Research Council, 2000 Edition). The 2,000 vphpl capacity is therefore considered reasonable to apply in the analysis of mixed-flow (general purpose) mainline freeway or tollway lanes in the SOCTIIP study area. Consistent with Caltrans' guidelines for high occupancy vehicle (HOV) facilities, a desirable operating capacity of 1,600 vphpl is applied for a one-lane buffer-separated HOV facility and a desirable operating capacity of 1,750 vphpl is applied for a two-lane buffer-separated HOV facility in which passing is allowed. These HOV capacities, which are lower than the capacity for a mixed-flow freeway/tollway lane, reflect Caltrans' objective for HOV facilities to operate better than LOS E.

The capacity of a freeway auxiliary lane is difficult to define because auxiliary lanes are typically implemented to preserve standard freeway capacities at locations where the geometric design is below standard (for example, between interchanges that are spaced less than 1.6 kilometers (1.0 miles) apart) or where heavy on/off ramp volumes occur between interchanges. While an auxiliary lane can increase the overall capacity of a mainline freeway segment, the practical increase depends on factors such as the length of the auxiliary lane and the on/off ramp volumes at each end of the auxiliary lane. Based on discussions with Caltrans staff, a method by which the capacity of an auxiliary lane varies according to these factors was developed.

The capacity assumptions for freeway/tollway mixed-flow, HOV and auxiliary lanes are summarized in Table 1-3 together with the overall impact criteria for analyzing freeway/tollway mainline segments within the traffic analysis study area. When evaluating existing freeway/tollway conditions (i.e., based on traffic count data), the V/C and LOS criteria are applicable only in situations where the observed traffic volume occurs in stable flow. Freeway/tollway capacities can be substantially reduced under unstable congested conditions in which less traffic is accommodated than under ideal freeway operating conditions. The LOS E performance standard listed in Table 1-3 has been established by Caltrans as the operating standard for freeway/tollway mainline segments and is also consistent with the LOS standard specified in the Orange County CMP for CMP facilities.

1.5.1.2 Impact Criteria for Arterial Roads

For the arterial system, the peak hour is the time period standardly used for impact evaluation and a number of techniques are available to establish suitable V/C ratios and to define the corresponding LOSs. These definitions and procedures are established by individual local jurisdictions or by regional programs such as the CMP and the countywide Growth Management Plan (GMP).

For the SOCTIIP traffic and circulation study, the analysis of the arterial road system is based on intersection capacity because this is the defining capacity limitation on an arterial highway system. There may be exceptions where certain facilities have long distances between signalized intersections, but within the SOCTIIP traffic analysis study area, peak hour intersection performance is the most representative measure for evaluating the arterial road system. Levels of service for arterial road intersections are determined based on operating conditions during the AM and PM peak hours. The intersection capacity utilization (ICU) methodology is applied based on peak hour volumes and a given intersection's geometric configuration. This methodology sums the V/C ratios for the critical movements of an intersection and is generally compatible with the intersection capacity analysis methodology in the *HCM 2000*. The ICU ranges that correspond to LOSs A through F are the same as the V/C ranges shown in Table 1-2 for arterial roads and intersections.

The jurisdictions in the SOCTIIP study area have established various arterial intersection LOS standards that serve both as a guideline for evaluating observed traffic conditions and as a target or goal when evaluating future development plans and circulation system modifications. The jurisdictions within the traffic analysis study area have also adopted various parameters for calculating ICU values and thresholds for identifying adverse ICU impacts.

Table 1-3

FREEWAY/TOLLWAY MAINLINE PERFORMANCE CRITERIA

V/C Calculation Methodology

Level of service to be based on peak hour volume/capacity (V/C) ratios calculated using the following capacities:

2,000 vehicles per hour per lane (vphpl) for mixed-flow (general purpose) lanes.

1,600 vphpl for a one-lane buffer-separated high occupancy vehicle (HOV) facility.

1,750 vphpl for a two-lane buffer-separated HOV facility.

0 vehicles per hour (vph) added capacity for an auxiliary lane that is 0.8 km (0.5 mile) or less in length, an auxiliary lane that is between 0.8 km (0.5 mile) and 1.6 km (1.0 mile) in length carrying less than 1,000 vph of total on/off ramp volume at the beginning and end of the lane, or an auxiliary lane that acts as a climbing lane.

500 vph added capacity for an auxiliary lane that is between 0.8 km (0.5 mile) and 1.6 km (1.0 mile) in length carrying between 1,000 and 2,000 vph of total on/off ramp volume at the beginning and end of the lane.

1,000 vph added capacity for an auxiliary lane that is between 0.8 km (0.5 mile) and 1.6 km (1.0 mile) in length carrying more than 2,000 vph of total on/off ramp volume at the beginning and end of the lane.

Performance Standard

Level of Service E (peak hour V/C less than or equal to 1.00).

Impact Threshold

A freeway/tollway mainline segment is considered to be adversely impacted by a given Build Alternative if:

1. The segment is forecast to operate deficiently (i.e., worse than the performance standard).
2. The V/C in the Build Alternative increases by greater than 0.03 (the impact threshold specified in the CMP) compared to the V/C in No Action Alternative.

Abbreviations: CMP – Orange County Congestion Management Program

The ICU calculation methodology and associated impact criteria applied for the SOCTIIP study area arterial system are summarized in Table 1-4. Most local jurisdictions in the study area utilize LOS D (ICU not to exceed 0.90) as the accepted standard. Exceptions are noted in the table for local jurisdictions that accept a different LOS standard for a certain section of road and for CMP locations that have a different LOS standard.

1.5.1.3 Impact Criteria for Freeway/Tollway Ramps

Similar to the arterial system evaluation, the peak hour is the time period standardly used by Caltrans for impact evaluation of freeway and tollway interchange ramps. For the SOCTIIP traffic and circulation study, levels of service for freeway and tollway ramps in the traffic analysis study area are based on AM and PM peak hour V/C ratios. Carrying capacities for the various ramp configurations that either exist or are anticipated on the freeway/tollway system in the traffic analysis study area are based on information in the *Highway Design Manual* (Caltrans, July 1995) and the *Ramp Meter Design Manual* (Caltrans, January 2000) and have been verified through discussions with Caltrans staff.

The capacities for calculating ramp V/C ratios are summarized in Table 1-5 together with the overall impact criteria for freeway/tollway ramps within the study area. Capacities are listed for two basic types of interchanges: freeway (or tollway) to arterial road and freeway to freeway (or tollway). For SOCTIIP Alternatives where a confluence is proposed between the FTC tollway and I-5, the freeway to freeway (or tollway) ramp capacities are applied to analyze the performance of the confluence ramps. The LOS E performance standard listed in Table 1-5 has been established by Caltrans as the operating standard for freeway/tollway ramps.

1.5.2 MEASURES OF EFFECTIVENESS

The primary purpose of the measures of effectiveness is to enable comparisons to be made among the various SOCTIIP Alternatives that were analyzed. The measures applied in this analysis involve systemwide statistics such as vehicle miles and vehicle hours of travel, facility specific statistics such as congestion levels on I-5 and the arterial roadway system in the study area, and point to point travel time statistics. All provide some form of statistical basis for comparing how the transportation system in general and the vehicles using the transportation system respond to the various alternatives. Table 1-6 summarizes the measures of effectiveness and the following discussion highlights the key features of each of these measures.

1.5.2.1 VMT and VHT Statistics

Vehicle miles of travel (VMT) and vehicle hours of travel (VHT) are basic outputs of the traffic model that was applied to develop traffic forecasts for use in the analysis of the SOCTIIP Alternatives. The VMT and VHT data produced by the model can be applied to evaluate the systemwide performance of the circulation system under the No Action Alternative and the Build Alternatives. The VMT statistic generally indicates the overall volume of traffic on the circulation system. The VHT statistic is an indicator of the general level of congestion on the circulation system. For instance, the reduction in VHT between a No Action Alternative scenario and a Build Alternative scenario represents the systemwide travel time savings that are produced due to the traffic congestion relief provided by the given Build Alternative.

Table 1-4

ARTERIAL INTERSECTION PERFORMANCE CRITERIA

V/C Calculation Methodology

Level of service to be based on peak hour intersection capacity utilization (ICU) values calculated using the following assumptions:

Saturation Flow Rate: 1,600 vehicles/hour/lane for City of San Clemente intersections, 1,700 vehicles/hour/lane for all other jurisdictions in the study area.

Clearance Interval: 0.00 for City of San Clemente intersections, 0.05 for all other jurisdictions in the study area.

Performance Standards

Level of Service D (peak hour ICU less than or equal to 0.90) for locations other than CMP intersections and Crown Valley Parkway intersections between I-5 and Marguerite Parkway.

Level of Service E (peak hour ICU less than or equal to 1.00) for CMP intersections (i.e., the I-5 ramp intersections at Crown Valley Parkway and at Ortega Highway, and the intersection of Moulton Parkway and Crown Valley Parkway) and Crown Valley Parkway intersections between I-5 and Marguerite Parkway.

Impact Thresholds

An intersection is considered to be adversely impacted by a given Build Alternative if:

1. The intersection is forecast to operate deficiently (i.e., worse than the performance standard).
2. Compared to the ICU in the No Action Alternative, the ICU in the Build Alternative increases as follows:
 - 0.01 or greater at County of Orange, City of Mission Viejo, City of Rancho Santa Margarita and City of San Juan Capistrano intersections (the impact threshold specified in the GMP and adopted by the Cities of Mission Viejo, Rancho Santa Margarita and San Juan Capistrano).
 - Greater than 0.01 at City of Dana Point, City of Laguna Hills, City of Laguna Niguel and City of San Clemente intersections (the impact threshold adopted by those Cities).
 - Greater than 0.03 at CMP intersections (the impact threshold specified in the CMP).

Abbreviations: V/C – Volume/Capacity Ratio
CMP – Orange County Congestion Management Program
GMP – Orange County Growth Management Plan

Table 1-5
FREEWAY/TOLLWAY RAMP PERFORMANCE CRITERIA

V/C Calculation Methodology

Level of service to be based on peak hour volume/capacity (V/C) ratios calculated using the following ramp capacities:

Freeway/Tollway to Arterial Road Interchanges

Metered On-Ramps

A maximum capacity of 900 vehicles per hour (vph) for a one-lane metered on-ramp with only one mixed-flow lane at the meter.

A maximum capacity of 1,080 (20 percent greater than 900) vph for a one-lane metered on-ramp with one mixed-flow lane at the meter plus one HOV preferential lane at the meter.

A maximum capacity of 1,500 vph for a one-lane metered on-ramp with two mixed-flow lanes at the meter.

A maximum capacity of 1,800 vph for a two-lane metered on-ramp with two mixed-flow lanes at the meter.

Toll Ramps (On-Ramps and Off-Ramps)

A maximum capacity of 1,500 vph for a one-lane toll ramp with one cash (stopped) lane and one FasTrak (unstopped) lane.

Non-Metered and Non-Tolled On-Ramps and Off-Ramps

A maximum capacity of 1,500 vph for a one-lane ramp.

A maximum capacity of 2,250 (50 percent greater than 1,500) vph for a two-lane on-ramp that tapers to one merge lane at or beyond the freeway mainline gore point and for a two-lane off-ramp with only one auxiliary lane.

A maximum capacity of 3,000 vph for a two-lane on-ramp that does not taper to one merge lane and for a two-lane off-ramp with two auxiliary lanes.

(Continued)

Table 1-5 (cont)
FREEWAY/TOLLWAY RAMP PERFORMANCE CRITERIA

V/C Calculation Methodology (cont)

Freeway to Tollway and Freeway to Freeway Interchanges

A maximum capacity of 2,000 vph for a one-lane ramp.

A maximum capacity of 4,000 vph for a two-lane ramp.

Performance Standard

Level of Service E (peak hour V/C less than or equal to 1.00).

Impact Thresholds

A freeway/tollway ramp is considered to be adversely impacted by a given Build Alternative if:

1. The ramp is forecast to operate deficiently (i.e., worse than the performance standard).
2. Compared to the V/C in the No Action Alternative, the V/C in the Build Alternative increases as follows:
 - 0.01 or greater for ramps at County of Orange, City of Mission Viejo, City of Rancho Santa Margarita and City of San Juan Capistrano intersections (the impact threshold specified in the GMP and adopted by the Cities of Mission Viejo, Rancho Santa Margarita and San Juan Capistrano).
 - Greater than 0.01 for ramps at City of Dana Point, City of Laguna Hills, City of Laguna Niguel and City of San Clemente intersections (the impact threshold adopted by those Cities).
 - Greater than 0.03 for ramps at CMP intersections (the impact threshold specified in the CMP).

Abbreviations: CMP – Orange County Congestion Management Program
GMP – Orange County Growth Management Plan

Table 1-6

MEASURES OF EFFECTIVENESS

1. VMT and VHT (Systemwide)

Freeways/Tollways

Arterial Roads

I-5 (in the study area)

2. Congestion (Study Area)

I-5 (expressed as percent of daily VMT on I-5 that occurs under congested conditions based on freeway segment levels of service)

Arterial Roads (expressed as number of hours of vehicle delay based on intersection levels of service)

3. Travel Time Comparisons

For traffic on I-5 at the Orange County/San Diego County border (expressed in terms of average point to point travel times to geographic areas within Orange County and beyond Orange County)

Abbreviations: VMT – Vehicle Miles of Travel
VHT – Vehicle Hours of Travel

Due to the focused structure of the SCSAM sub-area traffic model, the systemwide data produced by the model can only be used on a comparative basis (i.e., differences) because the absolute numbers are derived from a regional road network that is skeletal in nature outside of Orange County. The data is adequate to compare VMT and VHT among the SOCTIIP Alternatives by showing the differences in these values. The traffic model provides systemwide traffic volumes and estimated travel speeds on individual facilities for four time periods: AM peak (6 AM to 9 AM), midday (9 AM to 3 PM), PM peak (3 PM to 7 PM) and nighttime (7 PM to 6 AM). For the SOCTIIP evaluation, VMT/VHT statistics are summarized for AM peak period conditions, PM peak period conditions and daily conditions, the latter being derived by summing the traffic model VMT/VHT results for these four time periods. The VMT/VHT systemwide statistics are separated according to freeways/tollways and arterial roads, and VMT/VHT data for the segment of I-5 in the traffic analysis study area is also summarized.

1.5.2.2 Congestion Statistics

One of the technical issues in evaluating system performance based on peak hour or peak period conditions is understanding the implications of a V/C ratio exceeding 1.0, particularly on the freeway system. A future traffic demand forecast for a facility can result in a V/C value greater than 1.0 even though the volume cannot physically exceed the capacity (apart from short term fluctuations) in the real world. Understanding the relationship between peak hour demand and peak period volumes is also important in deriving the demand on toll road facilities.

The study area includes the existing toll roads and a number of the SOCTIIP Alternatives propose the extension of the existing FTC south of Oso Parkway as a toll road. Hence, the traffic modeling and the evaluation of the results take into account what can be anticipated to happen when future peak hour demand exceeds the capacity of the freeway system, I-5 in this case, and traffic diverts to other facilities (e.g., a toll road and/or parallel arterial road) or spreads into the peak period (e.g., a one-hour period of freeway congestion extends to a two or three hour period of congestion).

This issue is addressed by using an effectiveness measure that evaluates peak spreading on I-5 in the study area. For each SOCTIIP Alternative that is analyzed, the duration of congested flow during the AM and PM peak periods and the corresponding proportion of daily traffic that is forecast to experience congested conditions is determined for each segment of I-5 in the study area based on forecasted peak hour V/C ratios. This enables the amount of VMT that occurs under congested conditions to be calculated for individual segments of I-5 and summed for the length of I-5 that is in the study area. The resulting estimate of the percent of daily VMT on I-5 in the study area that is forecast to occur under congested conditions is used as a comparative statistic in the measures of effectiveness.

Congestion statistics are also used as a measure of effectiveness for the arterial road system in the study area. To derive this statistic, peak hour ICU values for each alternative are converted to estimates of equivalent vehicle delay. The resulting delay estimates are then summed for intersections throughout the study area, resulting in an estimate of total hours of vehicle delay on the arterial system for each alternative. Because the number of signalized intersections varies among the scenarios, this statistic was summarized only for a set of major intersections that is

common to each of the analysis scenarios, thereby enabling a true comparative evaluation to be conducted among the scenarios.

1.5.2.3 Travel Time Statistics

For this measure of effectiveness, comparisons between the alternatives are made for point to point travel times, with particular emphasis on trips across the Orange County/San Diego County border (i.e., I-5). This statistic is expressed in terms of average peak hour travel times between the county line and local geographic areas in Orange County as well as regional areas beyond Orange County (e.g., Los Angeles, Riverside, San Bernardino and Ventura Counties). A comparison of travel times between the No Action Alternative scenarios and the Build Alternative scenarios provides an indication of the travel time savings provided by the Build Alternatives.

SECTION 2.0 DESCRIPTION OF THE ALTERNATIVES

2.1 DESCRIPTION OF THE ALTERNATIVES

As mentioned earlier in Section 1.1 (Background), in November 2000, the SOCTIIP Collaborative concurred on a set of alternatives that are the subject of this traffic study. The alternatives under consideration consist of several transportation improvement alternatives (referred to in this report as Build Alternatives) as well as a No Action Alternative. The Build Alternatives include alternative alignments for the FTC-S toll road corridor, and alternatives that include arterial and/or freeway improvements instead of the FTC-S. This Section describes each of the SOCTIIP Alternatives.

2.1.1 NO ACTION ALTERNATIVE

The No Action Alternative forms the basis for comparison with the Build Alternatives. In the No Action Alternative, the circulation system in southern Orange County is developed consistent with current regional, sub-regional, and local transportation plans, with the exception that the FTC-S is not assumed to be constructed south of the existing terminus of the FTC-N. The Regional Transportation Plan (RTP) provides the long-range circulation plan for the regional circulation system and the Orange County Master Plan of Arterial Highways (MPAH) provides the long-range circulation plan for the arterial system in the study area. The FTC-S is included in the RTP and MPAH.

2.1.2 FAR EAST CORRIDOR ALTERNATIVES

The Far East Corridor (FEC) alignments for the FTC-S are evaluated in this analysis. The SOCTIIP Alternatives include initial and ultimate corridor alternatives for each of the alignments. As discussed earlier in Section 1.4.5 (Initial and Ultimate Corridor Alternatives), separate traffic analyses for the initial corridor and ultimate corridor alternatives were not carried out because essentially the same traffic demand under 2025 conditions is forecast for each alternative (initial and ultimate). However, to demonstrate worst case conditions, the capacity analysis summarized in this report for the corridor alternatives under year 2025 toll conditions is based on the initial corridor alternatives. The following sub-sections describe each of the FEC alternatives.

2.1.2.1 Far East Corridor – Complete – Initial and Ultimate Alternatives

In the FEC-Initial and Ultimate Alternatives, the alignment of the FTC-S proceeds southerly from the existing terminus of the FTC-N at Oso Parkway, traversing along the east side of Cañada Chiquita, and south of Coto de Caza to where it crosses San Juan Creek and Ortega Highway (SR 74) approximately 5.5 kilometers (3.5 miles) east of Antonio Parkway/Avenida La Pata. It then extends southerly along the east edge of the Rancho Mission Viejo (RMV) Land Conservancy and Cristianitos Creek. The alignment then swings southwesterly and crosses the Orange/San Diego County border immediately west of the San Diego Gas and Electric (SDG&E)

substation. It then continues southerly in San Diego County through San Onofre State Park and Marine Corps Base (MCB) Camp Pendleton, crossing Cristianitos Road approximately 1.1 kilometers (0.7 mile) north of I-5, and terminating at I-5 in the vicinity of Basiline Road.

Figure 2-1 illustrates the FEC-Initial and Ultimate Alternatives. Four general purpose lanes and two HOV lanes would be constructed on the FTC-S for the initial corridor, and six general purpose lanes and two HOV lanes would be provided for the ultimate corridor. The first phase of the corridor that is proposed to be constructed by approximately 2007 does not include the HOV lanes. However, the traffic demand on the FTC-S under 2025 toll conditions is forecast to exceed the capacity provided by the first phase of the corridor. Therefore, the HOV lanes are assumed to be constructed by 2025 under either the initial or ultimate corridor alternatives.

The FEC Alternatives include interchanges at Oso Parkway (completion of existing half diamond), Crown Valley Parkway, Ortega Highway (via a new connector road), Avenida Pico, Cristianitos Road (half diamond) and I-5 (direct connectors to and from the south). The Crown Valley Parkway interchange is assumed to be constructed as part of the 21,000 DU OCP-2000 RMV development plan and is not part of the FTC-S that is proposed in the FEC Alternatives. A mainline toll plaza is located approximately midway between Oso Parkway and Ortega Highway, and ramp toll plazas are located at the Crown Valley Parkway interchange on ramps to and from the north and at the Ortega Highway and Avenida Pico interchanges on ramps to and from the south.

2.1.2.2 Far East Corridor – Modified – Initial and Ultimate Alternatives

In the FEC-M-Initial and Ultimate Alternatives, the alignment of the FTC-S proceeds southerly from the existing terminus of the FTC-N at Oso Parkway, traversing along the east side of Cañada Chiquita, south of Coto de Caza, crossing Cañada Gobernadora approximately four km (2.5 miles) north of San Juan Creek, and crossing San Juan Creek and Ortega Highway (SR 74) approximately 5.4 kilometers (3.4 miles) east of Antonio Parkway/Avenida La Pata. It then extends southerly along the east edge of the RMV Land Conservancy and Cristianitos Creek, crossing the southeast portion of the RMV Land Conservancy and the southeast corner of the Talega Valley Planned Community before crossing Avenida Pico. South of Avenida Pico, the FEC-M alignment follows the same alignment as the FEC Alternatives.

The FEC-M Alternatives provide essentially the same connections to the local roadway system as the FEC Alternatives. Therefore, a specific traffic analysis for the FEC-M-Initial and Ultimate Alternatives was not carried out because the traffic forecasts for these Alternatives are similar to those of the FEC-Initial and Ultimate Alternatives.

2.1.2.3 Far East Corridor – West – Initial and Ultimate Alternatives

In the FEC-W-Initial and Ultimate Alternatives, the alignment of the FTC-S proceeds southerly from the existing terminus of the FTC-N at Oso Parkway, traversing along the east side of Cañada Chiquita, south of Coto de Caza, crossing Canada Gobernadora approximately four km (2.5 miles) north of San Juan Creek, and crossing San Juan Creek and Ortega Highway (SR 74) approximately 4.0 kilometers (2.5 miles) east of Antonio Parkway/Avenida La Pata. It then

extends southerly along the west side of the RMV Land Conservancy, extending southeast and crossing the southeast corner of the Talega Valley Planned Community before crossing Avenida Pico. South of Avenida Pico, the FEC-W alignment follows the same alignment as the FEC Alternatives.

The FEC-W Alternatives provide essentially the same connections to the local roadway system as the FEC Alternatives. Therefore, a specific traffic analysis for the FEC-W-Initial and Ultimate Alternatives was not carried out because the traffic forecasts for these Alternatives are similar to those of the FEC-Initial and Ultimate Alternatives.

2.1.2.4 Far East Corridor – Talega Variation – Initial and Ultimate Alternatives

In the FEC-TV-Initial and Ultimate Alternatives, the FTC-S follows the FEC alignment to just south of Ortega Highway, then swings southwesterly, through the northern part of the RMV Land Conservancy. It then traverses through the Talega development crossing Avenida Vista Hermosa (with an interchange) north of Avenida Pico, joining the Central Corridor alignment southwest of Avenida La Pata alignment (refer to Section 2.1.3 for a description of the Central Corridor alignment). The alignment then follows the Central Corridor to its termination at I-5 and would include an interchange at Calle del Cerro (Avenida Pico connection). Figure 2-2 illustrates the FEC-TV-Initial and Ultimate Alternatives.

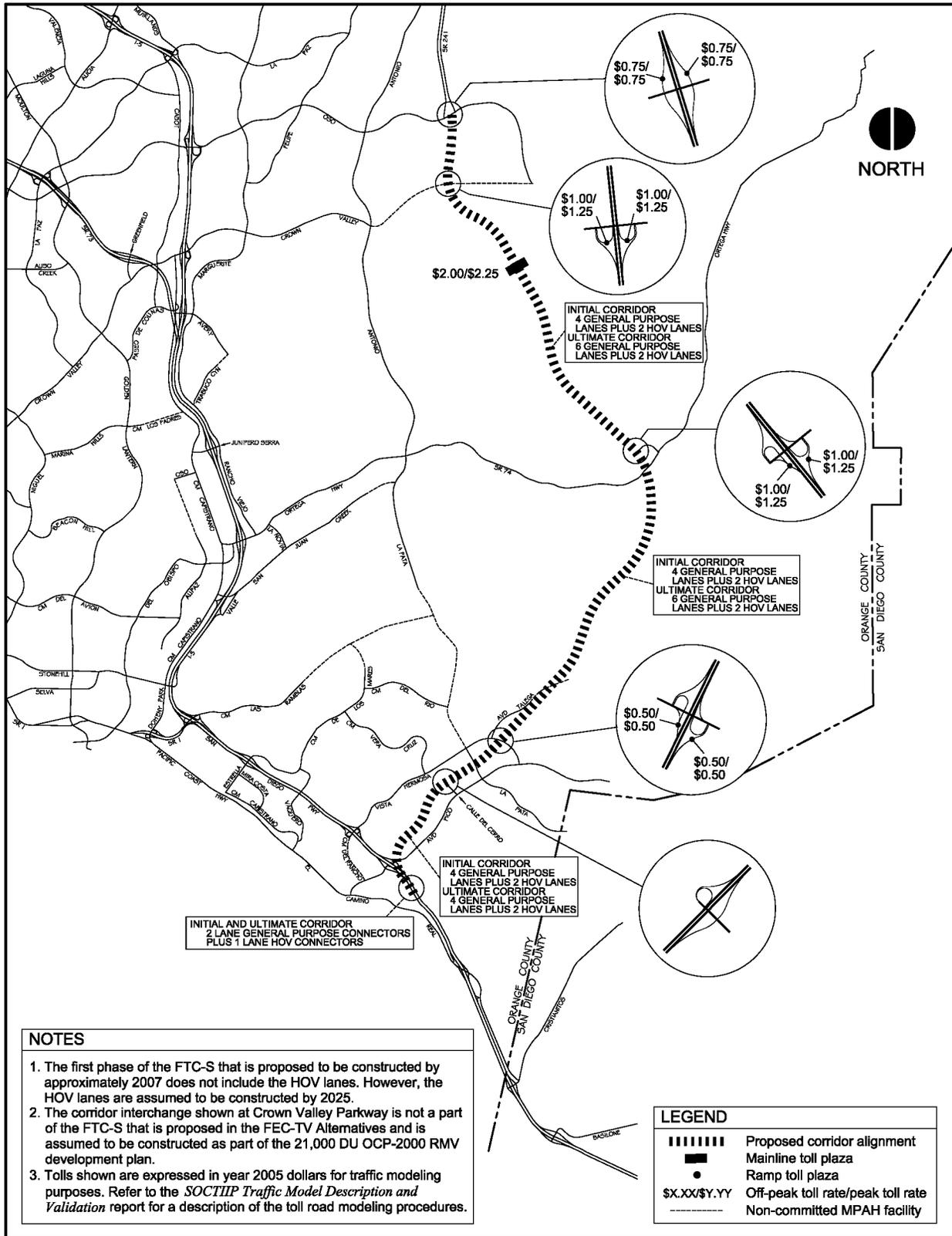
2.1.2.5 Far East Corridor – Cristianitos Variation – Initial and Ultimate Alternatives

In the FEC-CV-Initial and Ultimate Alternatives, which are illustrated in Figure 2-3, the FTC-S follows the FEC alignment to Avenida Pico. It then becomes a four-lane arterial and follows the Agricultural Field Variation alignment (refer to Section 2.1.2.4 for a description of this alignment) to existing Cristianitos Road. It then follows the existing Cristianitos Road alignment and terminates at I-5 with improvements to the Cristianitos Road interchange. This variation includes an at-grade intersection with the east leg of existing Cristianitos Road.

2.1.2.6 Far East Corridor – Agricultural Fields Variation – Initial and Ultimate Alternatives

In the FEC-AFV-Initial and Ultimate Alternatives, the FTC-S follows the FEC alignment to Avenida Pico. It then swings slightly east of the Far East Corridor as it crosses the Orange/San Diego County border and traverses southerly in San Diego County through San Onofre State Park and MCB Camp Pendleton parallel to and just west of Cristianitos Creek. It then crosses Cristianitos Road 0.8 kilometer (0.5 mile) southwest of San Mateo Road, crosses San Mateo Creek just west of Cristianitos Creek, and then traverses the agricultural leased land on MCB Camp Pendleton east of San Mateo Creek. It terminates at I-5 in the same location as the FEC alignment.

The FEC-AFV Alternatives provide essentially the same connections to the local roadway system as the FEC Alternatives. Therefore, a specific traffic analysis for the FEC-AFV-Initial and Ultimate Alternatives was not carried out because the traffic forecasts for these Alternatives are similar to those of the FEC-Initial and Ultimate Alternatives.



Far East Corridor - Talega Variation
- Initial and Ultimate Alternatives

2.1.2.7 Far East Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives

In the FEC-OHV-Initial and Ultimate Alternatives, which are illustrated in Figure 2-4, the FTC-S follows the FEC alignment to Ortega Highway where the corridor ends. For these Alternatives, it is anticipated that Transportation System Management (TSM) improvements would be required on Ortega Highway from the corridor terminus to I-5. TSM improvements are strategies that reduce the need for physical capacity expansion, especially on roadways, and increase the level of transit, traffic management, and other operation strategies for meeting future needs.

2.1.2.8 Far East Corridor – Avenida Pico Variation – Initial and Ultimate Alternatives

In the FEC-APV-Initial and Ultimate Alternatives, which are illustrated in Figure 2-5, the FTC-S follows the FEC alignment to Avenida Pico where the corridor ends. In this scenario, it is anticipated that TSM improvements would be required on Avenida Pico from the corridor termination to I-5.

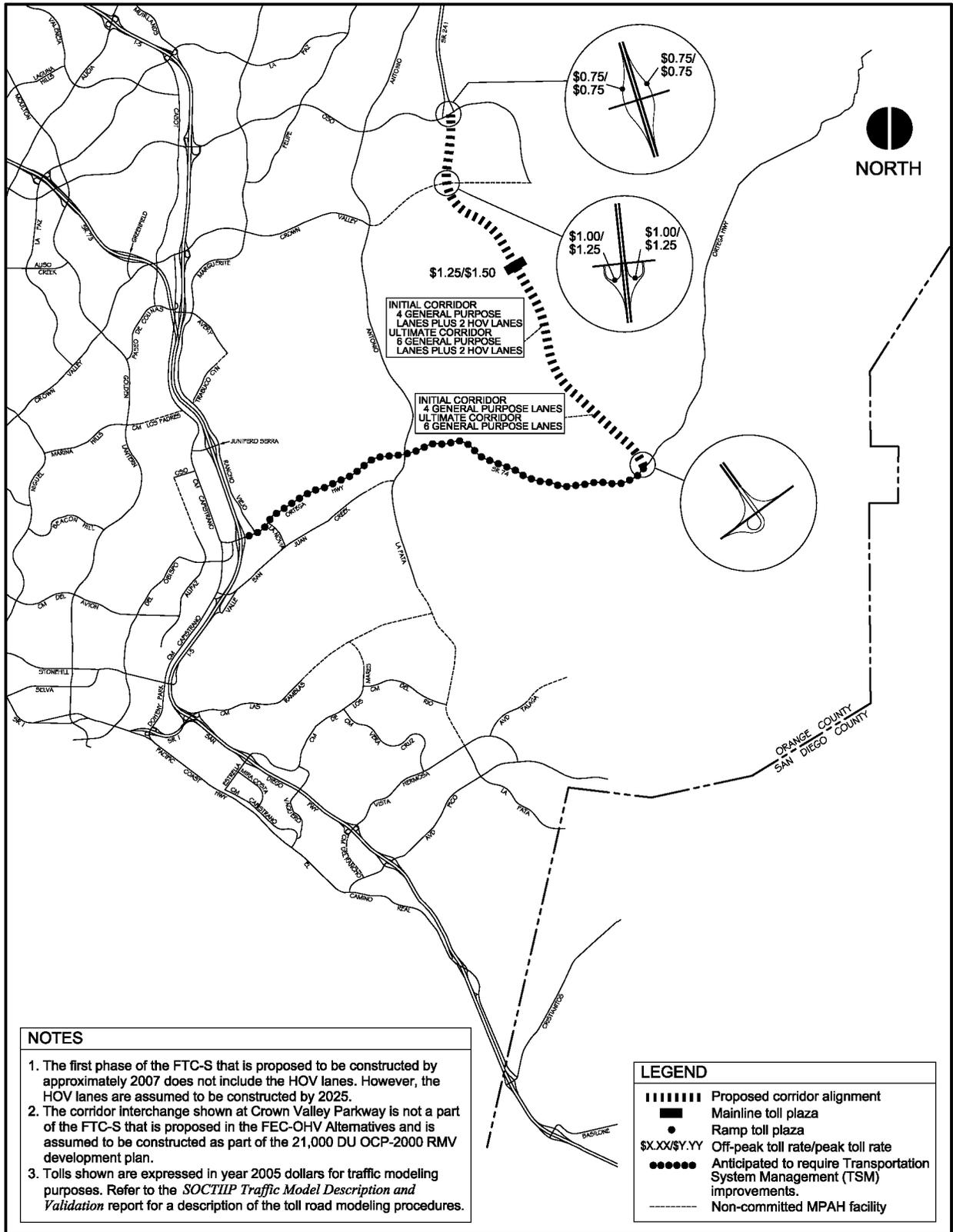
2.1.3 CENTRAL CORRIDOR ALTERNATIVES

The Central Corridor (CC) alignments for the FTC-S are evaluated in this analysis. The SOCTIIP Alternatives include initial and ultimate corridor alternatives for each of the alignments. As discussed earlier in Section 1.4.5 (Initial and Ultimate Corridor Alternatives), separate traffic analyses for the initial corridor and ultimate corridor alternatives were not carried out because essentially the same traffic demand under 2025 conditions is forecast for each alternative (initial versus ultimate). However, to demonstrate worst case conditions, the capacity analysis summarized in this report for the corridor alternatives under year 2025 toll conditions is based on the initial corridor alternatives. The following sub-sections describe each of the CC alternatives.

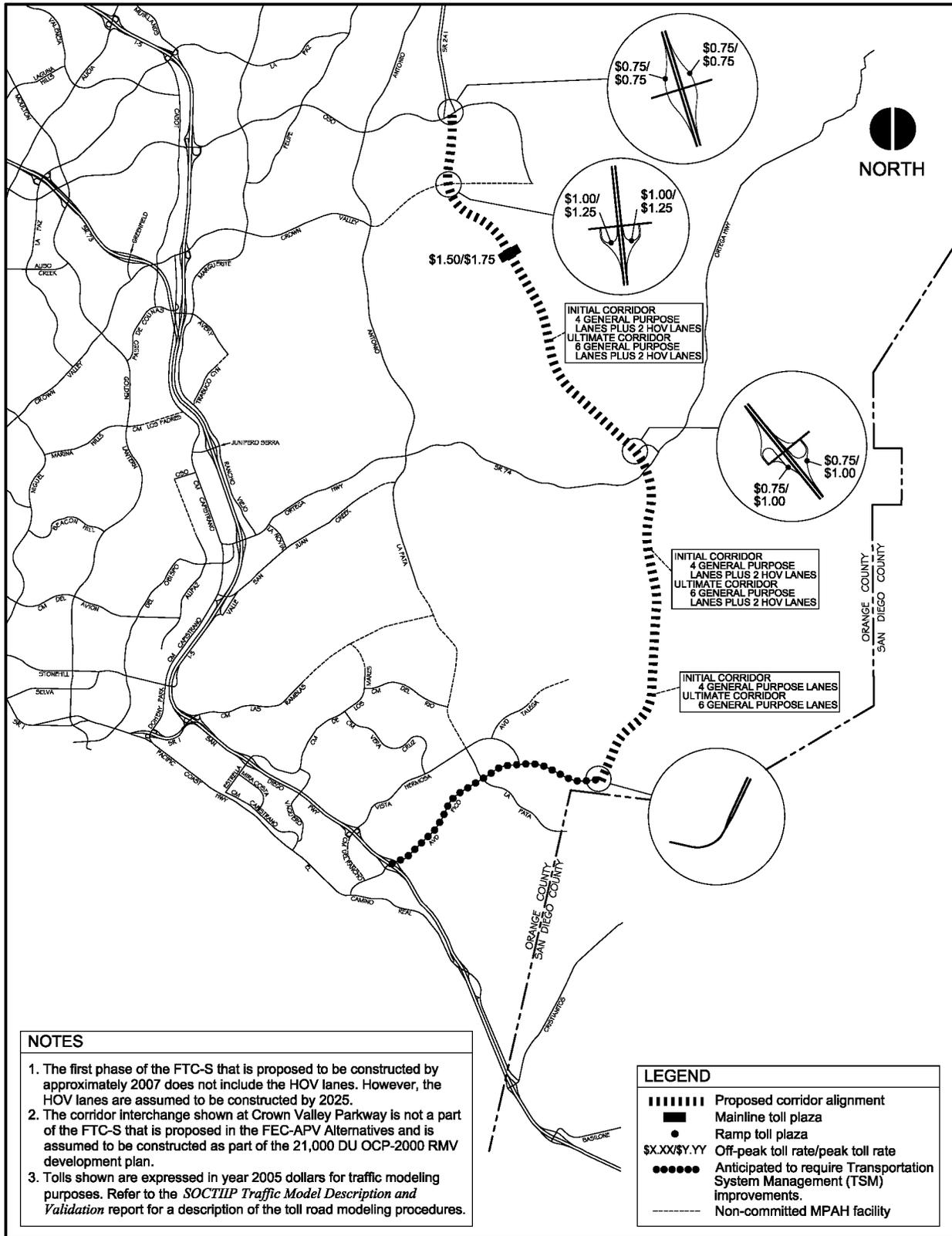
2.1.3.1 Central Corridor – Complete – Initial and Ultimate Alternatives

In the CC-Initial and Ultimate Alternatives, the alignment of the FTC-S proceeds southerly from the existing terminus of the FTC-N at Oso Parkway, crossing Cañada Chiquita approximately 2.1 kilometers (1.3 miles) south of Oso Parkway, extending along the west side of Cañada Chiquita, and crossing San Juan Creek and Ortega Highway (SR 74) approximately 0.4 kilometer (0.25 mile) east of Antonio Parkway/Avenida La Pata. It then continues south, parallel to and east of Avenida La Pata, crosses through the Prima Deshecha Landfill property, enters the City of San Clemente, and continues south to Avenida Vista Hermosa traversing along the westerly edge of the Talega Valley property. It then crosses Avenida Vista Hermosa, swings southwesterly and continues parallel to and northwest of Avenida Pico, terminating at I-5 between Avenida Pico and Avenida Presidio in San Clemente.

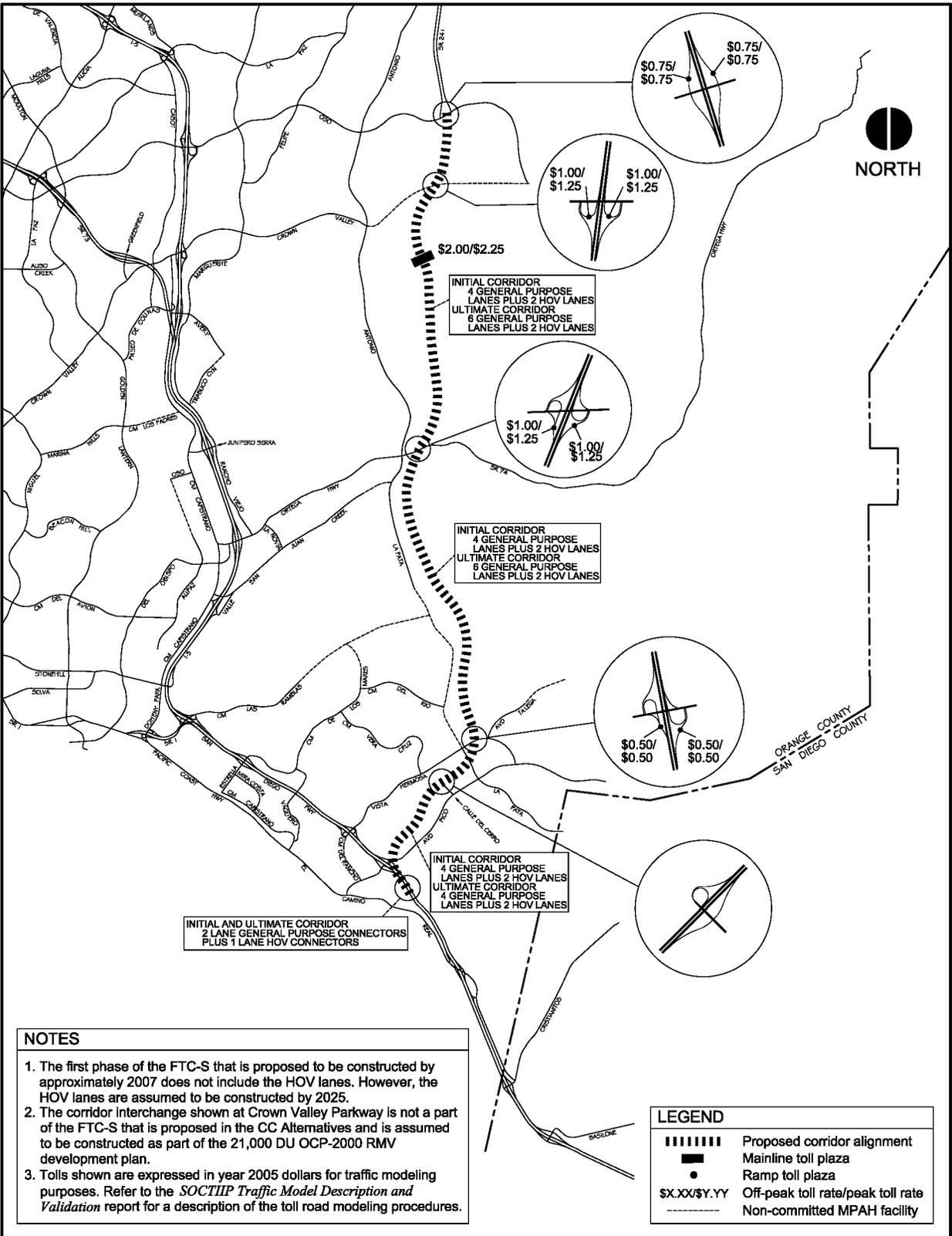
Figure 2-6 illustrates the CC-Initial and Ultimate Alternatives. Four general purpose lanes and two HOV lanes would be constructed on the FTC-S for the initial corridor, and six general purpose lanes and two HOV lanes would be provided for the ultimate corridor. The first phase of the corridor that is proposed to be constructed by approximately 2007 does not include the



Far East Corridor - Ortega Highway Variation
- Initial and Ultimate Alternatives



Far East Corridor - Avenida Pico Variation
- Initial and Ultimate Alternatives



Central Corridor - Complete
- Initial and Ultimate Alternatives

HOV lanes. However, the traffic demand on the FTC-S under 2025 toll conditions is forecast to exceed the capacity provided by the first phase of the corridor. Therefore, the HOV lanes are assumed to be constructed by 2025 under either the initial or ultimate corridor alternatives.

The CC alignment includes interchanges at Oso Parkway (completion of existing half diamond), Crown Valley Parkway, Ortega Highway, Avenida Vista Hermosa, Calle del Cerro (Avenida Pico connection) and I-5 (direct connectors to and from the south). The Crown Valley Parkway interchange is assumed to be constructed as part of the 21,000 DU OCP-2000 RMV development plan and is not part of the FTC-S that is proposed in the CC Alternatives. The CC Alternatives would include construction of a northbound and southbound collector-distributor road from south of Avenida Pico to south of El Camino Real. All I-5 connections in this area would be modified for the collector-distributor road configuration. A mainline toll plaza is located approximately midway between Oso Parkway and Ortega Highway, and ramp toll plazas are located at the Crown Valley Parkway interchange on ramps to and from the north and at the Ortega Highway and Avenida Vista Hermosa interchanges on ramps to and from the south.

2.1.3.2 Central Corridor – Avenida La Pata Variation – Initial and Ultimate Alternatives

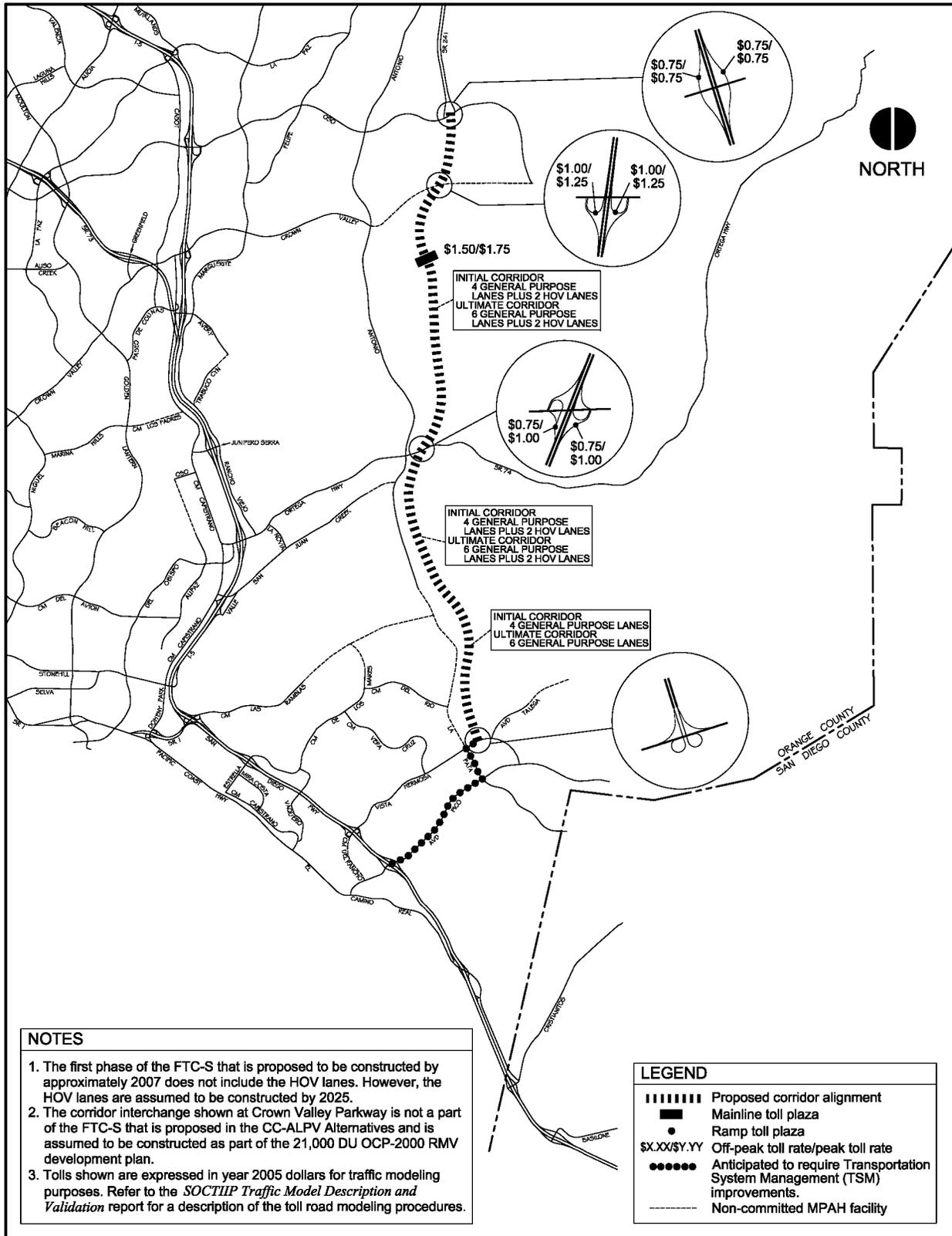
In the CC-ALPV-Initial and Ultimate Alternatives, which are illustrated in Figure 2-7, the FTC-S follows the CC alignment to Avenida Vista Hermosa where the corridor ends. For these Alternatives, it is anticipated that TSM improvements would be required on Avenida Vista Hermosa and Avenida La Pata from the corridor termination to Avenida Pico and on Avenida Pico from Avenida La Pata to I-5.

2.1.3.3 Central Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives

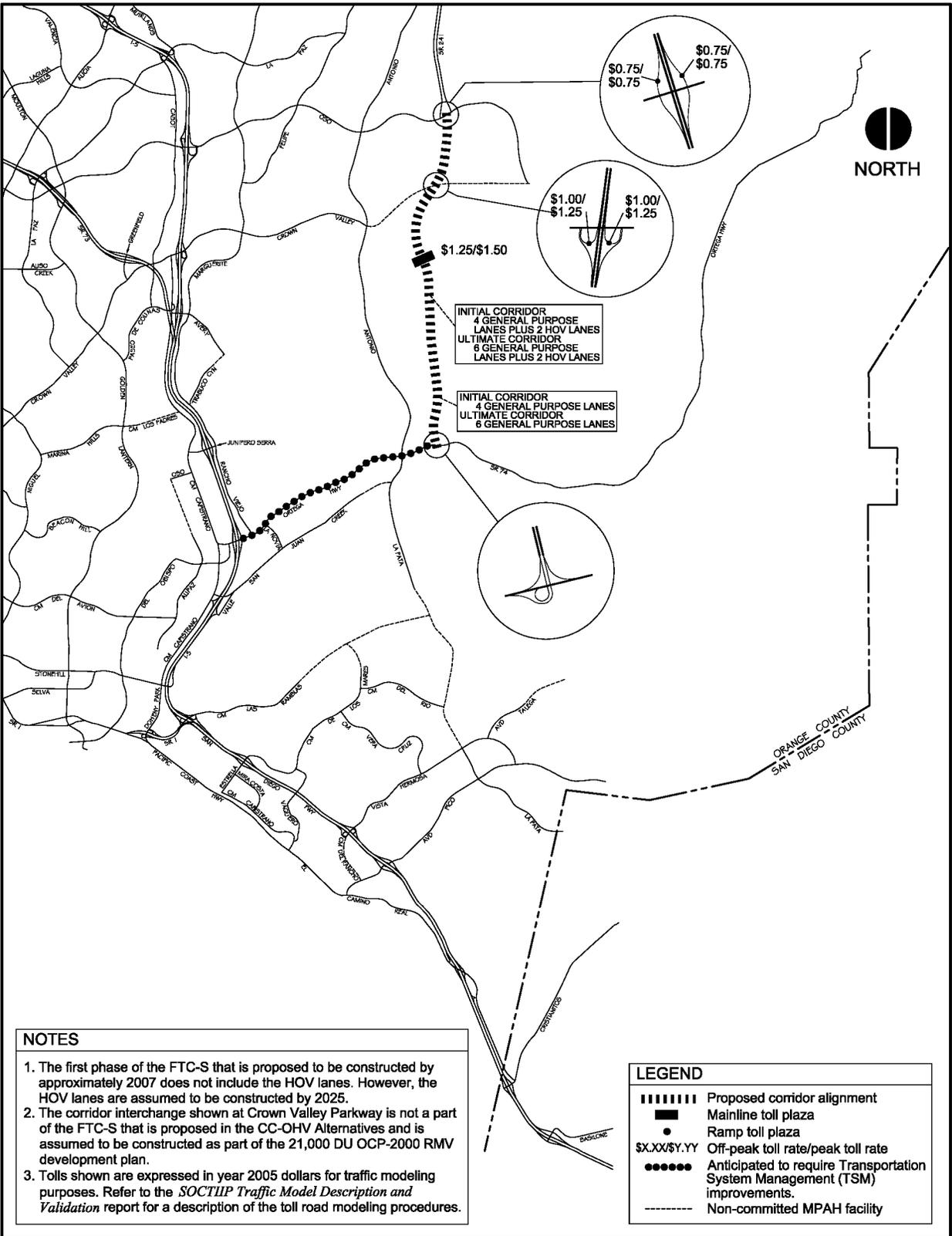
In the CC-OHV-Initial and Ultimate Alternatives, which are illustrated in Figure 2-8, the FTC-S follows the CC alignment to Ortega Highway where the corridor ends. For these Alternatives, it is anticipated that TSM improvements would be required on Ortega Highway from the corridor termination to I-5.

2.1.4 ALIGNMENT 7 CORRIDOR ALTERNATIVES

The Alignment 7 Corridor (A7C) alignments for the FTC-S are evaluated in this analysis. The SOCTIIP Alternatives include initial and ultimate corridor alternatives for each of the alignments. As discussed earlier in Section 1.4.5 (Initial and Ultimate Corridor Alternatives), separate traffic analyses for the initial corridor and ultimate corridor alternatives were not carried out because essentially the same traffic demand under 2025 conditions is forecast for each alternative (initial versus ultimate). However, to demonstrate worst case conditions, the capacity analysis summarized in this report for the corridor alternatives under year 2025 toll conditions is based on the initial corridor alternatives. The following sub-sections describe each of the A7C alternatives.



Central Corridor - Avenida La Pata Variation
- Initial and Ultimate Alternatives



Central Corridor - Ortega Highway Variation
- Initial and Ultimate Alternatives

2.1.4.1 Alignment 7 Corridor – Complete – Initial and Ultimate Alternatives

In the A7C-Initial and Ultimate Alternatives, the alignment of the FTC-S proceeds southerly from the existing terminus of the FTC-N at Oso Parkway, traversing along the east side of Cañada Chiquita and east of the Chiquita Water Reclamation Plant. It then extends south across San Juan Creek and Ortega Highway (SR 74), crossing Ortega Highway approximately 1.7 kilometers (1.1 miles) east of Antonio Parkway/Avenida La Pata. It continues south, crossing the Prima Deshecha Landfill property, entering the City of San Clemente and crossing the Talega Valley property to Avenida Vista Hermosa. It then extends southwesterly, crossing Avenida La Pata and joining the Central Corridor alignment, terminating at I-5 between Avenida Pico and Avenida Presidio in San Clemente.

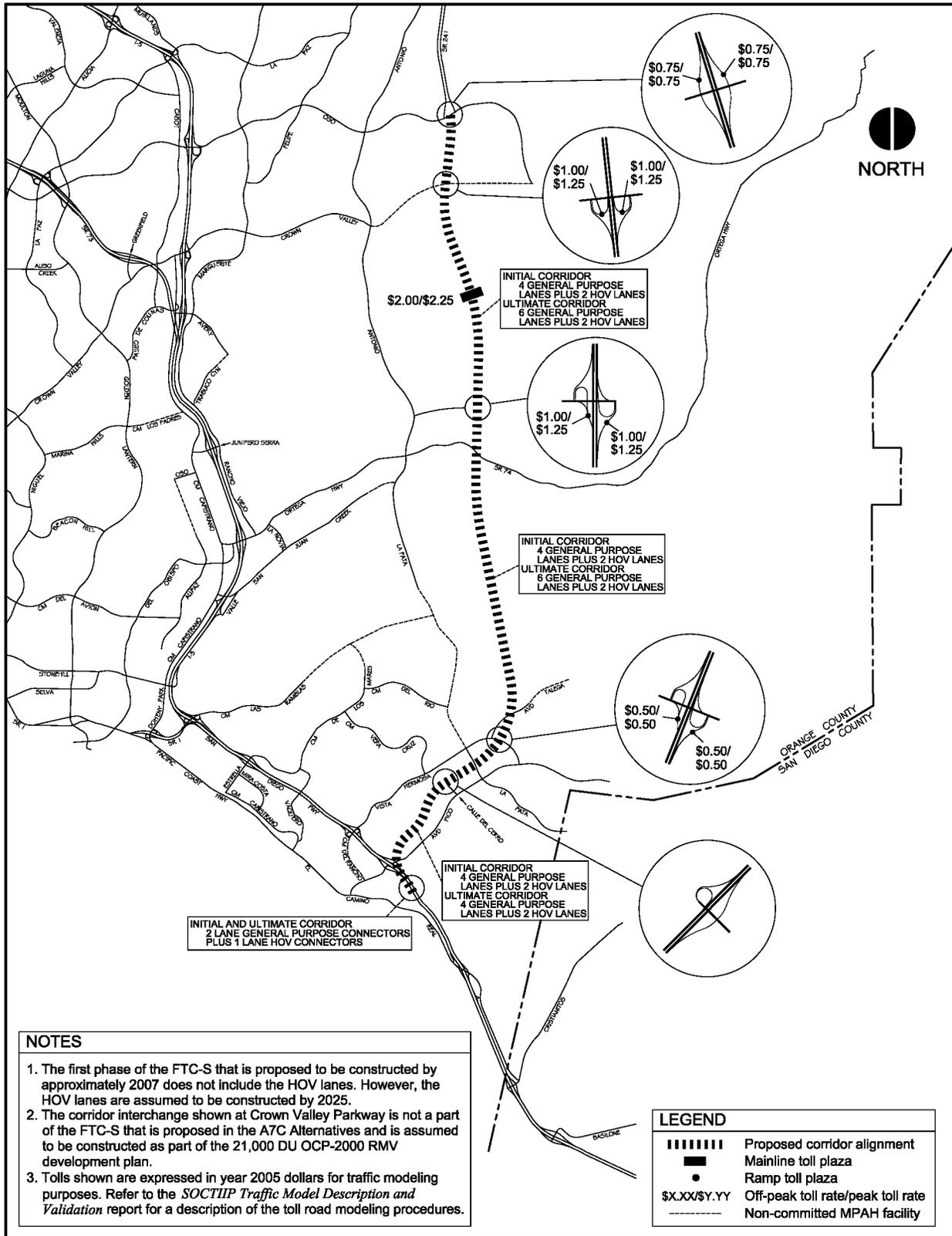
Figure 2-9 illustrates the A7C-Initial and Ultimate Alternatives. Four general purpose lanes and two HOV lanes would be constructed on the FTC-S for the initial corridor, and six general purpose lanes and two HOV lanes would be provided for the ultimate corridor. The first phase of the corridor that is proposed to be constructed by approximately 2007 does not include the HOV lanes. However, the traffic demand on the FTC-S under 2025 toll conditions is forecast to exceed the capacity provided by the first phase of the corridor. Therefore, the HOV lanes are assumed to be constructed by 2025 under either the initial or ultimate corridor alternatives.

The A7C alignment includes interchanges at Oso Parkway (completion of existing half diamond), Crown Valley Parkway, Ortega Highway/Antonio Parkway (via a new connector road), Avenida Vista Hermosa, Calle del Cerro (Avenida Pico connection) and I-5 (direct connectors to and from the south). The Crown Valley Parkway interchange is assumed to be constructed as part of the 21,000 DU OCP-2000 RMV development plan and is not part of the FTC-S that is proposed in the A7C Alternatives. The A7C alternatives would include construction of a northbound and southbound collector-distributor road from south of Avenida Pico to south of El Camino Real. All I-5 connections in this area would be modified for the collector-distributor road configuration. A mainline toll plaza is located approximately midway between Oso Parkway and Ortega Highway, and ramp toll plazas are located at the Crown Valley Parkway interchange on ramps to and from the north and at the Ortega Highway/Antonio Parkway and Avenida Vista Hermosa interchanges on ramps to and from the south.

2.1.4.2 Alignment 7 Corridor – 7 Swing Variation – Initial and Ultimate Alternatives

In the A7C-7SV-Initial and Ultimate Alternatives, the FTC-S follows the A7C alignment to the northern boundary of the Prima Deshecha Landfill property. It then swings southwesterly across the Prima Deshecha Landfill and enters the City of San Clemente approximately 0.8 kilometer (0.5 mile) east of the San Juan Capistrano city limits, then extends southerly to join the Central Corridor alignment just north of Avenida Vista Hermosa. The alignment then follows the Central Corridor alignment to its termination at I-5.

The A7C-7SV Alternatives provide essentially the same connections to the local roadway system as the A7C Alternatives. Therefore, a specific traffic analysis for the A7C-7SV-Initial and Ultimate Alternatives was not carried out because the traffic forecasts for these Alternatives are similar to those of the A7C-Initial and Ultimate Alternatives.



Alignment 7 Corridor - Complete
- Initial and Ultimate Alternatives

2.1.4.3 Alignment 7 Corridor – Far East Crossover Variation – Initial and Ultimate Alternatives

In the A7C-FECV-Initial and Ultimate Alternatives, which are illustrated in Figure 2-10, the FTC-S follows the A7C alignment to the northern boundary of the Prima Deshecha Landfill property. It then swings southeasterly and joins the FEC alignment just south of the Orange/San Diego County border and follows the FEC alignment to its termination at I-5.

2.1.4.4 Alignment 7 Corridor – Far East Crossover – Modified – Initial and Ultimate Alternatives

In the A7C-FEC-M-Initial and Ultimate Alternatives, the alignment of the FTC-S proceeds southerly from the existing terminus of the FTC-N at Oso Parkway, traversing along the east side of Cañada Chiquita and east of the Chiquita Water Reclamation Plant. It then extends south across San Juan Creek and Ortega Highway (SR 74), crossing Ortega Highway approximately 2.1 kilometers (1.3 miles) east of Antonio Parkway/Avenida La Pata. It continues south, traversing the west side of the RMV Land Conservancy and then southeast and crosses the southeast corner of the Rolling Hills (Talega) Planned Community before crossing Avenida Pico. South of Avenida Pico, the A7C-FEC-M alignment follows the same alignment as the FEC Alternatives.

The A7C-FEC-M Alternatives provide essentially the same connections to the local roadway system as the A7C-FECV Alternatives. Therefore, a specific traffic analysis for the A7C-FEC-M-Initial and Ultimate Alternatives was not carried out because the traffic forecasts for these Alternatives are similar to those of the A7C-FECV-Initial and Ultimate Alternatives.

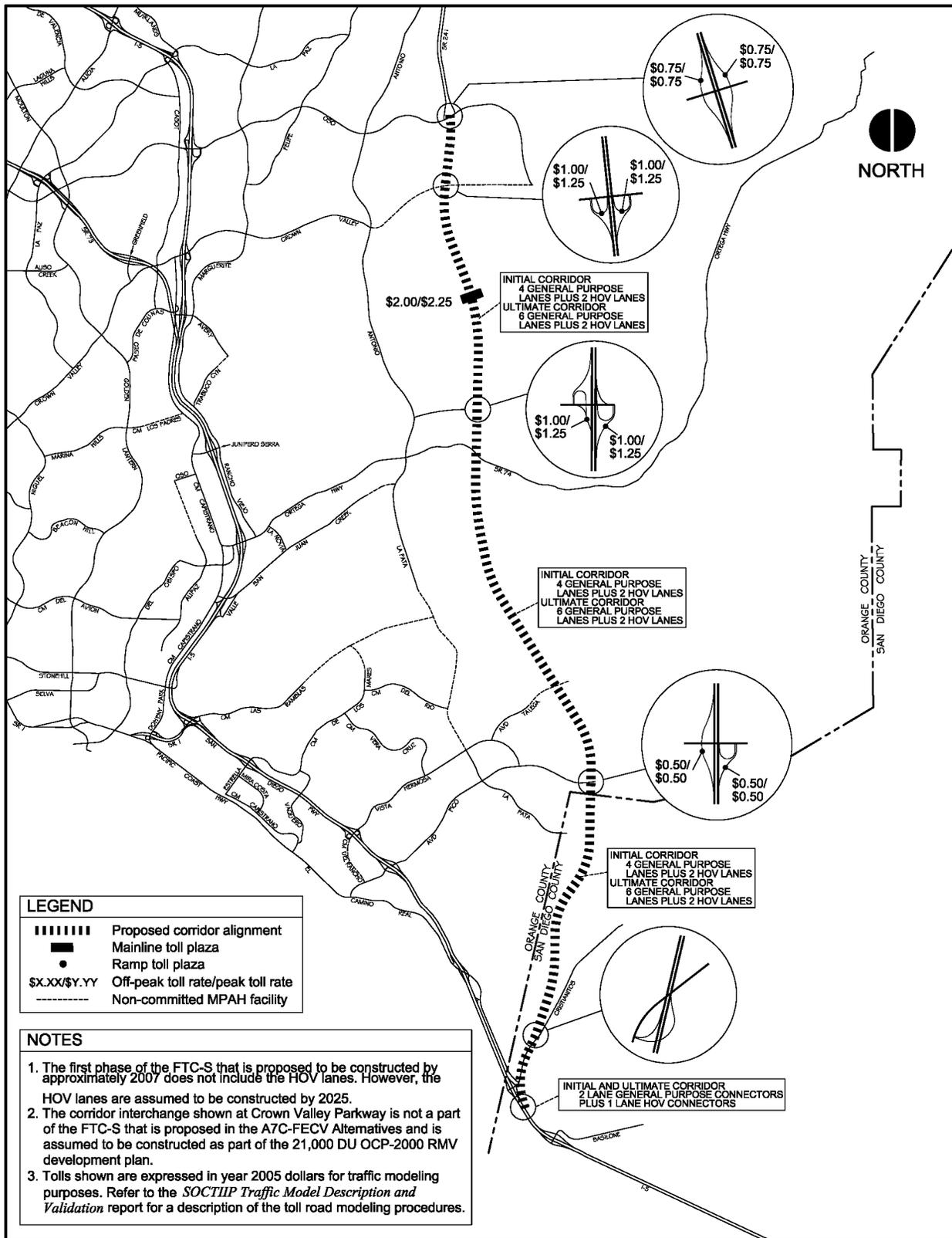
2.1.4.5 Alignment 7 Corridor – Far East Crossover (Cristianitos) Variation – Initial and Ultimate Alternatives

In the A7C-FECV-Initial and Ultimate Alternatives, which are illustrated in Figure 2-11, the FTC-S follows the A7C alignment to the northern boundary of the Prima Deshecha Landfill property. It then swings southeast, joining the FEC-CV alignment at Avenida Pico where it becomes a four-lane arterial to existing Cristianitos Road. It then follows the existing Cristianitos Road alignment and terminates at I-5 with improvements to the Cristianitos Road interchange. These Alternatives include an at-grade intersection with the east leg of existing Cristianitos Road.

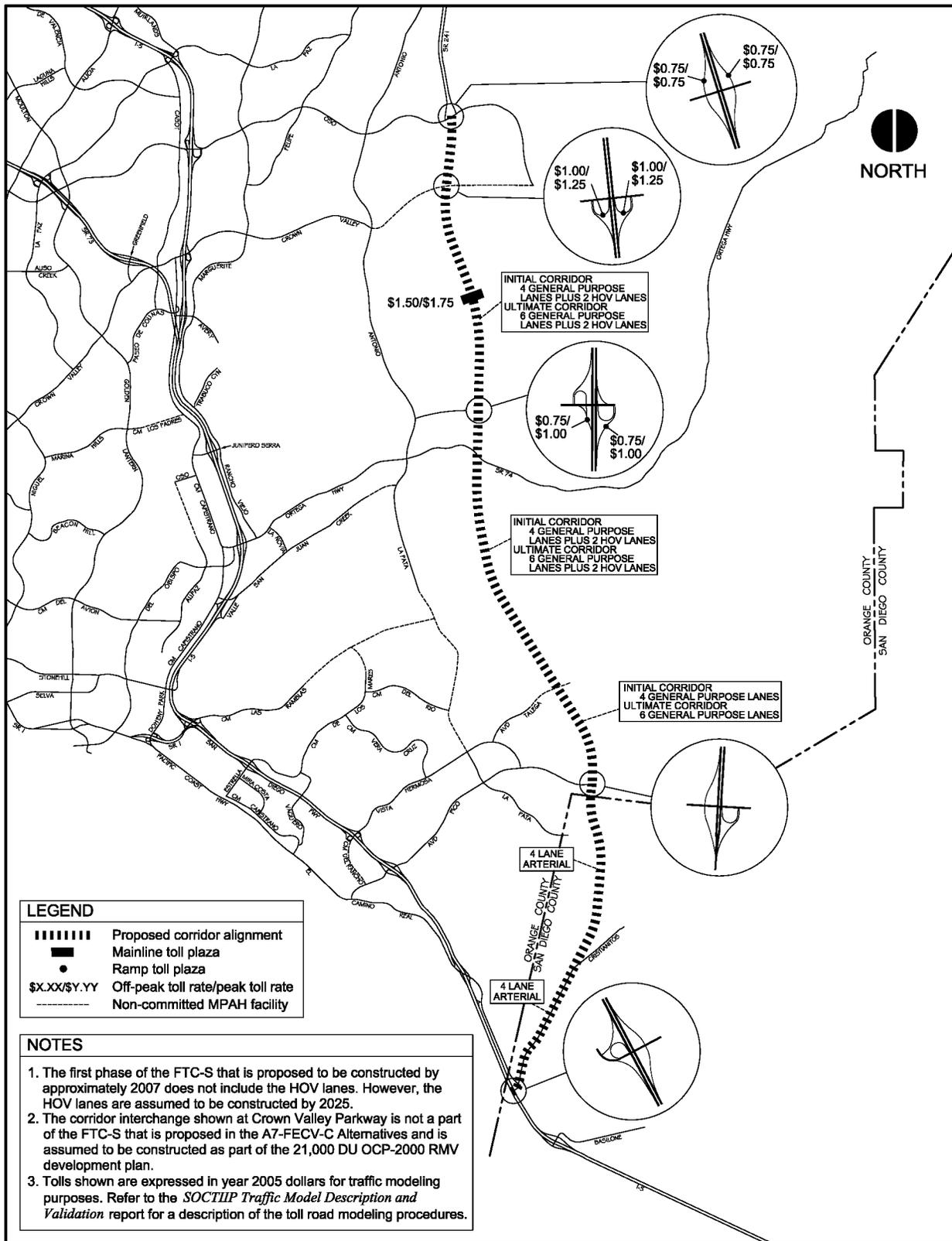
2.1.4.6 Alignment 7 Corridor – Far East Crossover (Agricultural Fields) Variation – Initial and Ultimate Alternatives

In the A7C-FECV-AF-Initial and Ultimate Alternatives, the FTC-S follows the A7C alignment to the northern boundary of the Prima Deshecha Landfill property. It then swings southeast, joining the FEC-AF alignment at Avenida Pico and follows that alignment to its termination at I-5.

The A7C-FECV-AF Alternatives provide essentially the same connections to the local roadway system as the A7C-FECV Alternatives. Therefore, a specific traffic analysis for the A7C-FECV-



Alignment 7 Corridor - Far East Crossover Variation
- Initial and Ultimate Alternatives



Alignment 7 Corridor - Far East Crossover (Cristianitos) Variation - Initial and Ultimate Alternatives

AF-Initial and Ultimate Alternatives was not carried out because the traffic forecasts for these Alternatives are similar to those of the A7C-FECV-Initial and Ultimate Alternatives.

2.1.4.7 Alignment 7 Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives

In the A7C-OHV-Initial and Ultimate Alternatives, which are illustrated in Figure 2-12, the FTC-S follows the A7C alignment to Ortega Highway where the corridor ends. For these Alternatives, it is anticipated that TSM improvements would be required on Ortega Highway from the corridor termination to I-5.

The A7C-OHV Alternatives provide essentially the same connections to the local roadway system as the CC-OHV Alternatives. Therefore, a specific traffic analysis for the A7C-OHV-Initial and Ultimate Alternatives was not carried out because the traffic forecasts for these Alternatives are similar to those of the CC-OHV-Initial and Ultimate Alternatives.

2.1.4.8 Alignment 7 Corridor – Avenida La Pata Variation – Initial and Ultimate Alternatives

In the A7C-ALPV-Initial and Ultimate Alternatives, which are illustrated in Figure 2-13, the FTC-S follows the A7C alignment to Avenida Vista Hermosa where the corridor ends. For these Alternatives, it is anticipated that TSM improvements would be required on Avenida Vista Hermosa and Avenida La Pata from the corridor termination to Avenida Pico and on Avenida Pico from Avenida La Pata to I-5.

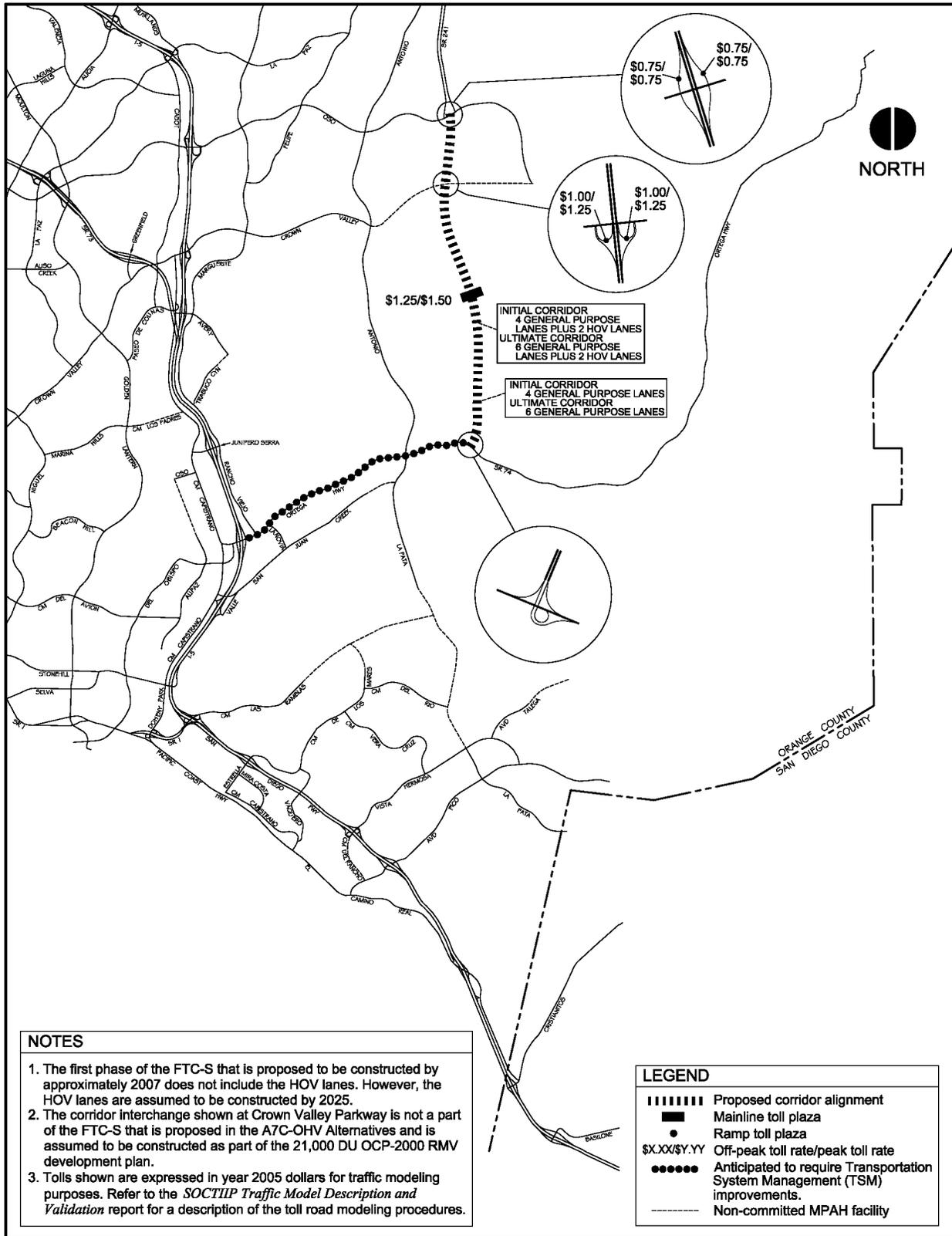
The A7C-ALPV Alternatives provide essentially the same connections to the local roadway system as the CC-ALPV Alternatives. Therefore, a specific traffic analysis for the A7C-ALPV-Initial and Ultimate Alternatives was not carried out because the traffic forecasts for these Alternatives are similar to those of the CC-ALPV-Initial and Ultimate Alternatives.

2.1.5 ARTERIAL AND I-5 IMPROVEMENT ALTERNATIVES

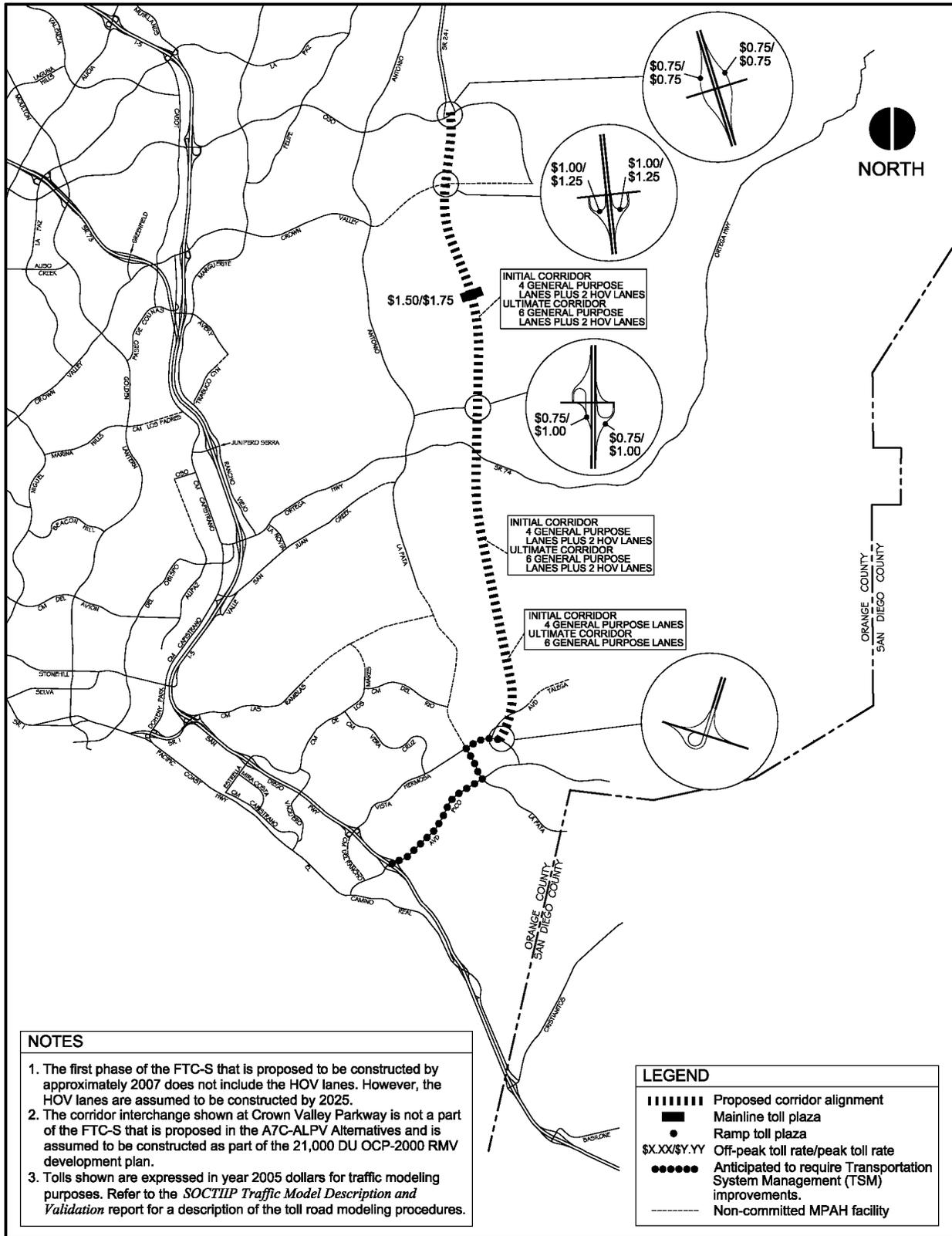
The Build Alternatives propose improvements beyond the current transportation plans for southern Orange County in lieu of the FTC-S toll road corridor. One alternative assumes arterial road improvements only, another assumes arterial road improvements plus the construction of high-occupancy vehicle (HOV) and spot mixed-flow lanes on I-5, and another assumes the widening of I-5 (HOV and mixed-flow lanes) without arterial road improvements. These three alternatives are described in the following sub-sections.

2.1.5.1 Arterial Improvements Only Alternative

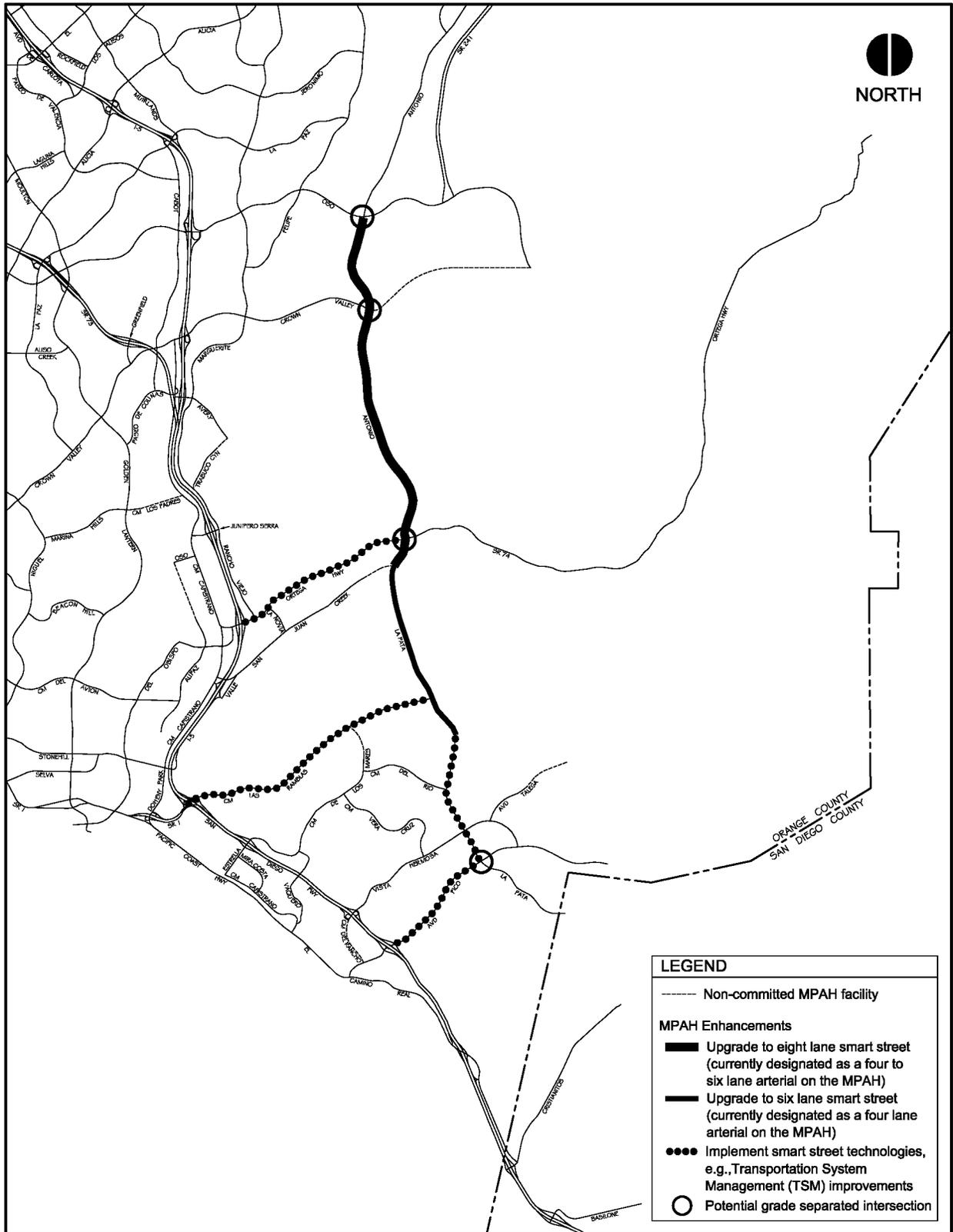
In the AIO Alternative, arterial enhancements are applied beyond the MPAH and RTP improvements that are assumed in the No Action Alternative. As illustrated in Figure 2-14, the MPAH enhancements include the expansion of Antonio Parkway/Avenida La Pata to an eight-lane smart street from Oso Parkway to San Juan Creek Road and to a six-lane smart street from San Juan Creek Road to Avenida Pico. Smart street technologies would also be included on Ortega Highway between Antonio Parkway/Avenida La Pata and I-5, Camino Las Ramblas between Avenida La Pata and I-5, and Avenida Pico between Avenida La Pata and I-5. Smart



Alignment 7 Corridor - Ortega Highway Variation
- Initial and Ultimate Alternatives



**Alignment 7 Corridor - Avenida La Pata Variation
- Initial and Ultimate Alternatives**



Arterial Improvements Only Alternative

street technologies include a combination of advanced traffic management strategies such as traffic signal coordination, real time monitoring and surveillance, and traveler information, as well as modest physical improvements such as additional turn lanes at intersections. The effectiveness of providing grade separation at the intersections of Antonio Parkway/Oso Parkway, Antonio Parkway/Crown Valley Parkway, Antonio Parkway-La Pata Avenue/Ortega Highway, and Avenida La Pata/Avenida Pico will also be considered in the evaluation of the AIO Alternative.

2.1.5.2 Arterial Improvements Plus HOV and Mixed-Flow Lanes on I-5 Alternative

The AIP Alternative, illustrated in Figure 2-15, assumes the same MPAH arterial enhancements described previously for the AIO Alternative as well as improvements along I-5 beyond the RTP. The I-5 improvements include the addition of one HOV lane in each direction from El Toro Road to south of Cristianitos Road, the addition of spot mixed-flow auxiliary lanes south of Ortega Highway and south of Avenida Pico, and the reconstruction of several existing I-5 interchanges. The number of travel lanes in each direction on I-5 in the AIP Alternative is summarized in Table 2-1. The summary table also lists the existing lanes on I-5 and improvements that are under construction (i.e., committed) or are currently included in the RTP or in the *I-5 Route Concept Report* (Caltrans, April 2000) which is considered a subset of the RTP.

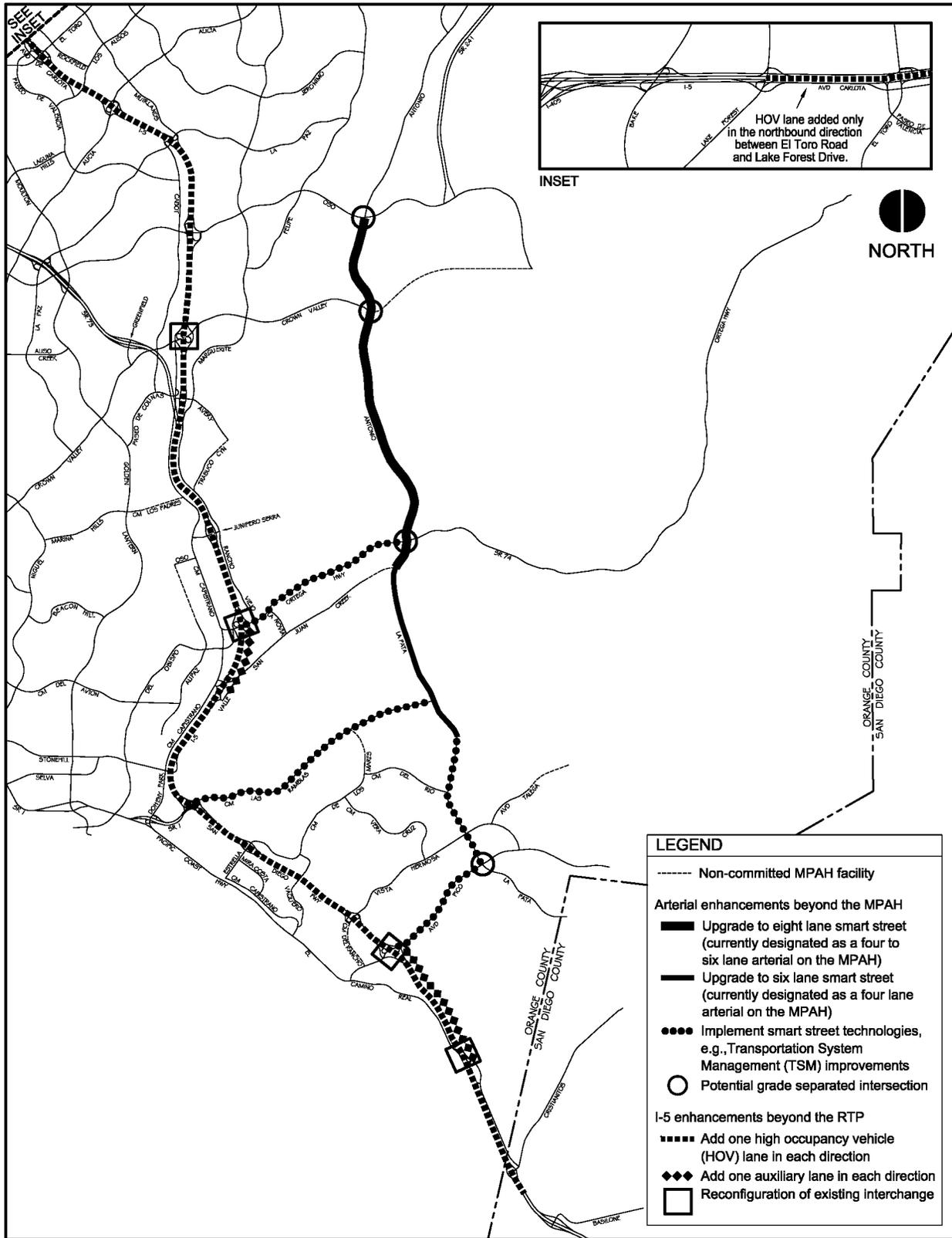
2.1.5.3 I-5 Widening Alternative

The I-5 Alternative, illustrated in Figure 2-16, involves an I-5 improvement plan beyond the RTP. The I-5 improvements include the addition of one general purpose lane in each direction from north of Lake Forest Drive to El Toro Road, one general purpose lane and one HOV lane in each direction between El Toro Road and SR 1/Camino Las Ramblas, two general purpose lanes in each direction between SR 1/Camino Las Ramblas and Avenida Pico, one general purpose lane in each direction between Avenida Pico and Cristianitos Road, and one HOV lane in each direction from Avenida Pico to south of Cristianitos Road. The improvement plan also involves the additions of auxiliary lanes north of Oso Parkway, north and south of Ortega Highway, and south of Avenida Pico, and the reconstruction of several existing I-5 interchanges. The number of travel lanes in each direction on I-5 in the I-5 Alternative is summarized in Table 2-1.

2.2 ANALYSIS SCENARIOS

A number of long-range scenarios were analyzed for each SOCTIIP Alternative based on year 2025 traffic conditions. The purpose of analyzing multiple scenarios for each alternative is to provide an understanding of how in general the transportation system responds to the various alternatives under different background conditions, and also to identify how the adverse impacts of each alternative vary under different scenarios.

The analysis scenarios are divided into a set of basic scenarios and a set of special analysis scenarios as summarized in Table 2-2. The basic scenarios analyze the alternatives based on the following combinations of circulation system (i.e., committed versus MPAH/RTP buildout) and RMV development plan background assumptions:



Arterial Improvements Plus HOV and Mixed-Flow Lanes on I-5 Alternative

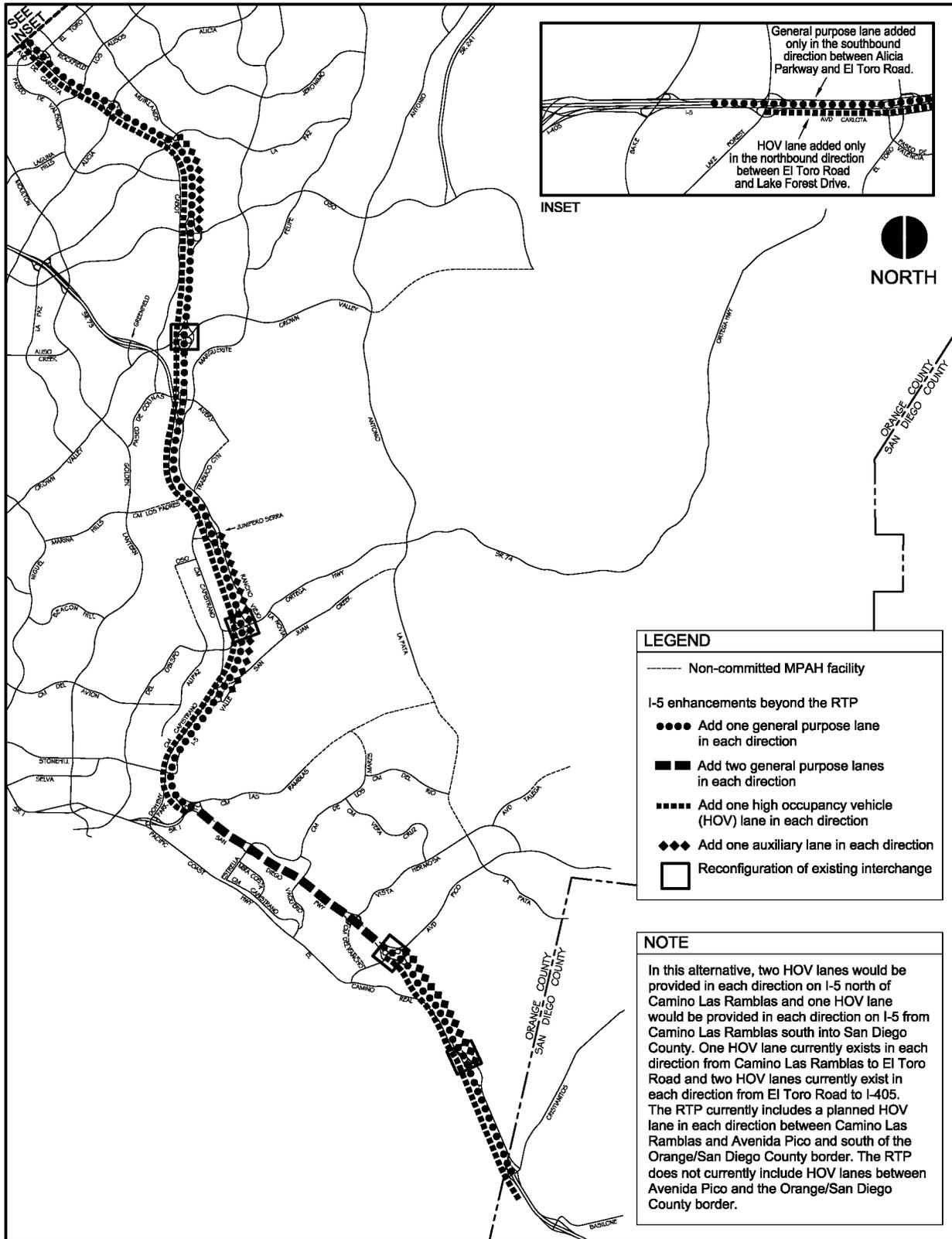
Table 2-1

SUMMARY OF I-5 IMPROVEMENTS IN THE AIP AND I-5 ALTERNATIVES

Segment	Direction	Existing Lanes	Added Lanes	
			RTP/CT-RCR	AIP Alternative
			AIP Alternative	I-5 Alternative
I-405 to Bake Pkwy	NB	9 + 2 HOV		
	SB	9 + 2 HOV		
Bake Pkwy to Lake Forest Dr	NB	8 + 2 HOV		1
	SB	8 + 2 HOV		1
Lake Forest Dr to El Toro Rd	NB	6 + HOV	HOV	1 + HOV
	SB	6 + 2 HOV		1
El Toro Rd to Alicia Pkwy	NB	5 + HOV + AUX	HOV	HOV
	SB	4 + HOV + AUX	HOV	1 + HOV
Alicia Pkwy to La Paz Rd	NB	4 + HOV + AUX	HOV	1 + HOV
	SB	4 + HOV + AUX	HOV	1 + HOV
La Paz Rd to Oso Pkwy	NB	4 + HOV	HOV	1 + HOV + AUX
	SB	4 + HOV	HOV	1 + HOV + AUX
Oso Pkwy to Crown Valley Pkwy	NB	4 + HOV + AUX		1 + HOV
	SB	4 + HOV	AUX	1 + HOV
Crown Valley Pkwy to Avery Pkwy	NB	4 + HOV + AUX	HOV	1 + HOV
	SB	4 + HOV + AUX	HOV	1 + HOV
Avery Pkwy to SR 73	NB	4 + HOV	HOV	1 + HOV
	SB	4 + HOV	HOV	1 + HOV
SR 73 to Junipero Serra Rd	NB	6 + HOV	HOV	1 + HOV
	SB	6 + HOV	HOV	1 + HOV
Junipero Serra Rd to Ortega Hwy/SR 74	NB	5 + HOV	HOV	1 + HOV + AUX
	SB	5 + HOV	HOV	1 + HOV + AUX

Table 2-1 (cont)
SUMMARY OF I-5 IMPROVEMENTS IN THE AIP AND I-5 ALTERNATIVES

Segment	Direction	Existing Lanes	Added Lanes		
			RTP/CT-RCR	AIP Alternative	I-5 Alternative
Ortega Hwy/SR 74 to Cm Capistrano	NB	4 + HOV		HOV + AUX	1 + HOV + AUX
	SB	4 + HOV		HOV + AUX	1 + HOV + AUX
Cm Capistrano to SR 1/Cm Las Ramblas	NB	4 + HOV		HOV	1 + HOV
	SB	4 + HOV		HOV	1 + HOV
SR 1/Cm Las Ramblas to Cm Estrella	NB	4 + AUX	HOV	HOV	2
	SB	4 + AUX	HOV	HOV	2
Cm Estrella to Avd Vista Hermosa	NB	4	HOV	HOV	2
	SB	4	HOV	HOV	2
Avd Vista Hermosa to Avd Pico	NB	4 + AUX	HOV	HOV	2
	SB	4 + AUX	HOV	HOV	2
Avd Pico to El Camino Real	NB	4	HOV + AUX	HOV + AUX	1 + HOV + AUX
	SB	4	HOV + AUX	HOV + AUX	1 + HOV + AUX
El Camino Real to Cristianitos Rd	NB	4	HOV	HOV	1 + HOV
	SB	4	HOV	HOV	1 + HOV
Cristianitos Rd to approximately one-half mile south of Cristianitos Rd	NB	4	HOV	HOV	HOV
	SB	4	HOV	HOV	HOV
Approximately one-half mile north of Basilone Rd to Basilone Rd	NB	4	HOV	HOV	HOV
	SB	4	HOV	HOV	HOV
South of Basilone Road	NB	4	HOV	HOV	HOV
	SB	4	HOV	HOV	HOV
Abbreviations:	HOV – High occupancy vehicle lane		AUX – Auxiliary Lane		
	RTP – Regional Transportation Plan		CT-RCR – Caltrans I-5 Route Concept Report (April 2000)		



I-5 Widening Alternative

Table 2-2
 SUMMARY OF TRAFFIC ANALYSIS SCENARIOS AND ASSUMPTIONS

Scenario/Alternative	Time Frame	Highway Network	Land Use (a)
I. Basic Scenarios			
Existing Conditions	2001	Existing	Existing
No Action Alternative	2025	Committed	OCP-2000 (1)
No Action Alternative	2025	Committed	OCP-2000 (2)
No Action Alternative	2025	MPAH/RTP	OCP-2000 (1)
No Action Alternative	2025	MPAH/RTP	OCP-2000 (2)
FEC Alternative	2025	Committed	OCP-2000 (1)
FEC Alternative	2025	MPAH/RTP	OCP-2000 (1)
FEC Alternative	2025	MPAH/RTP	OCP-2000 (2)
FEC-TV Alternative	2025	Committed	OCP-2000 (1)
FEC-TV Alternative	2025	MPAH/RTP	OCP-2000 (1)
FEC-TV Alternative	2025	MPAH/RTP	OCP-2000 (2)
FEC-CV Alternative	2025	Committed	OCP-2000 (1)
FEC-CV Alternative	2025	MPAH/RTP	OCP-2000 (1)
FEC-OHV Alternative	2025	Committed	OCP-2000 (1)
FEC-OHV Alternative	2025	MPAH/RTP	OCP-2000 (1)
FEC-APV Alternative	2025	Committed	OCP-2000 (1)
FEC-APV Alternative	2025	MPAH/RTP	OCP-2000 (1)
CC Alternative	2025	Committed	OCP-2000 (1)
CC Alternative	2025	MPAH/RTP	OCP-2000 (1)
CC Alternative	2025	MPAH/RTP	OCP-2000 (2)
CC-ALPV Alternative	2025	Committed	OCP-2000 (1)
CC-ALPV Alternative	2025	MPAH/RTP	OCP-2000 (1)
CC-OHV Alternative	2025	Committed	OCP-2000 (1)
CC-OHV Alternative	2025	MPAH/RTP	OCP-2000 (1)
A7C Alternative	2025	Committed	OCP-2000 (1)
A7C Alternative	2025	MPAH/RTP	OCP-2000 (1)
A7C-FECV Alternative	2025	Committed	OCP-2000 (1)
A7C-FECV Alternative	2025	MPAH/RTP	OCP-2000 (1)
A7C-FECV Alternative	2025	MPAH/RTP	OCP-2000 (2)

Table 2-2 (cont)
 SUMMARY OF TRAFFIC ANALYSIS SCENARIOS AND ASSUMPTIONS

Scenario/Alternative	Time Frame	Highway Network	Land Use (a)
I. Basic Scenarios (cont)			
A7C-FECV-C Alternative	2025	Committed	OCP-2000 (1)
A7C-FECV-C Alternative	2025	MPAH/RTP	OCP-2000 (1)
AIO Alternative	2025	Enhanced MPAH/RTP	OCP-2000 (1)
AIO Alternative	2025	Enhanced MPAH/RTP	OCP-2000 (2)
AIP Alternative	2025	Enhanced MPAH/RTP	OCP-2000 (1)
AIP Alternative	2025	Enhanced MPAH/RTP	OCP-2000 (2)
I-5 Alternative	2025	Committed	OCP-2000 (1)
I-5 Alternative	2025	MPAH/RTP	OCP-2000 (1)
I-5 Alternative	2025	MPAH/RTP	OCP-2000 (2)
II. Special Analysis Scenarios			
No Action Alternative – Existing General Plan for RMV	2025	Committed	OCP-2000 (3)
No Action Alternative – No Future RMV Development	2025	Committed	OCP-2000 (4)
FEC Alternative – Toll-Free	2025	MPAH/RTP	OCP-2000 (2)
CC Alternative – Toll-Free	2025	MPAH/RTP	OCP-2000 (2)
A7C Alternative – Toll-Free	2025	MPAH/RTP	OCP-2000 (2)

- (a) The land use assumptions for each scenario are as follows:
- OCP-2000 (1) – Adopted OCP-2000 growth projections revised to assume the 14,000 DU proposed development plan for RMV.
 - OCP-2000 (2) – Adopted OCP-2000 growth projections including the 21,000 DU OCP-2000 development plan for RMV.
 - OCP-2000 (3) – Adopted OCP-2000 growth projections revised to assume the 6,250 DU existing General Plan for RMV.
 - OCP-2000 (4) – Adopted OCP-2000 growth projections revised to assume no future RMV development.

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Various combinations of these four scenarios were applied in the traffic analysis of the SOCTIIP Alternatives. The following describes the scenarios that were analyzed for the No Action Alternative and the Build Alternatives.

2.2.1 NO ACTION ALTERNATIVE ANALYSIS SCENARIOS

The No Action Alternative was analyzed based on each of the four scenarios listed above. As described in detail in the *Project Alternatives Technical Report*, the environmental analysis for the SOCTIIP will consider two No Action Alternatives. Those two No Action Alternatives correspond to Scenarios 3 and 4. In addition, the *Project Alternatives Technical Report* identifies four specific No Action Scenarios that were developed for special analyses. Two of those No Action Scenarios correspond to Scenarios 1 and 2 which are as follows:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.

The other two No Action Scenarios were treated as special traffic analysis scenarios and are addressed in the special issues section of this report. Those two No Action Scenarios are based on the following background assumptions:

- Special Traffic Analysis Scenario 1: Committed circulation system with 6,250 DU existing General Plan for RMV.
- Special Traffic Analysis Scenario 2: Committed circulation system with no future RMV development.

2.2.2 BUILD ALTERNATIVE ANALYSIS SCENARIOS

A range of scenarios was analyzed for each Build Alternative which allows for an understanding of the circulation impacts of each alternative and for comparison among the alternatives. The scenarios that were analyzed for the Build Alternatives are summarized as follows:

FEC, FEC-TV, CC, A7C-FECV and I-5 Alternatives

- Scenarios 1, 3 and 4

FEC-CV, FEC-OHV, FEC-APV, CC-ALPV, CC-OHV, A7C and A7C-FECV-C Alternatives

- Scenarios 1 and 3

AIO and AIP Alternatives

- Scenarios 3 and 4

Certain long-range scenarios are less likely to occur by 2025 than others, therefore all scenarios (1, 2, 3 and 4) were not evaluated for each Build Alternative. For example, it is likely that the MPAH and RTP systems would be built out by 2025, so scenarios based on committed improvements only are not likely to occur by 2025. Similarly, the scenarios that assume the 21,000 DU OCP-2000 development plan for RMV are not likely to occur because the landowner has submitted plans for substantially fewer DUs (14,000). Scenario 2 (committed circulation system and 21,000 DU plan for RMV), the least likely of the four scenarios, was therefore only analyzed for the No Action Scenario described in the *Project Alternatives Technical Report* and was not analyzed for any of the Build Alternatives.

To understand the effects of all the SOCTIIP Alternatives, including the No Action Alternative, for a circulation system that does not represent buildout of the MPAH and RTP by 2025, Scenario 1 (committed circulation system and 14,000 DU proposed RMV plan) was analyzed for all of the alternatives with the exception of the AIO and AIP Alternatives. The arterial improvements proposed in the AIO and AIP Alternatives represent the majority of non-committed MPAH roadway improvements in the SOCTIIP study area. Future traffic conditions based on the AIO and AIP Alternatives would therefore be similar for the committed and buildout circulation system scenarios.

Scenario 3 (buildout circulation system and 14,000 DU proposed RMV plan) is considered the most likely of the four scenarios because it reflects the proposed RMV development plan and the adopted circulation plan. Scenario 3 was therefore analyzed for all of the SOCTIIP Alternatives, including the No Action Alternative. Because the 21,000 DU plan for RMV is unlikely to be developed, a limited number of the Build Alternatives were analyzed based on Scenario 4 (buildout circulation system and 21,000 DU plan for RMV). In addition to the No Action Alternative, Scenario 4 was also analyzed for the Build Alternatives without a toll corridor and for the Build Alternatives with the FTC-S toll road from Oso Parkway to I-5, but only for alternatives with substantially different alignments for the FTC-S. Because of its similarity to the CC Alternative, the A7C Alternative was not analyzed based on Scenario 4 (i.e., future traffic conditions under Scenario 4 would be similar for the CC and A7C Alternatives).

Finally, separate traffic analyses were not carried out for Build Alternatives that provide essentially the same connections to the circulation system and therefore result in the same future traffic conditions. The Build Alternatives that fall into this category are summarized as follows:

- FEC-M Alternative: same future traffic conditions as the FEC Alternative.
- FEC-W Alternative: same future traffic conditions as the FEC Alternative.
- FEC-AFV Alternative: same future traffic conditions as the FEC Alternative.
- A7C-7SV Alternative: same future traffic conditions as the A7C Alternative.
- A7C-FEC-M Alternative: same future traffic conditions as the A7C-FECV Alternative.

- A7C-FECV-AF Alternative: same future traffic conditions as the A7C-FECV Alternative.
- A7C-OHV Alternative: same future traffic conditions as the CC-OHV Alternative.
- A7C-ALPV Alternative: same future traffic conditions as the CC-ALPV Alternative.

2.2.3 TOLL-FREE ANALYSIS SCENARIOS

Three special analysis scenarios assume toll-free operation of the FTC-S and the existing toll roads in Orange County as shown in Table 2-2. Toll-free scenarios were analyzed for the FEC, CC and A7C Alternatives. In each case, the FTC-S between Oso Parkway and I-5 is assumed to be built out to the configuration under the ultimate corridor alternative and in operation as a toll-free facility. The three toll-free scenarios were analyzed based on Scenario 4, buildout MPAH/RTP circulation system and the 21,000 DU OCP-2000 development plan for the RMV area.

SECTION 3.0 TRANSPORTATION SETTING

3.1 EXISTING CIRCULATION SYSTEM

The existing highway network in the SOCTIIP traffic analysis study area is illustrated in Figure 3-1. For arterial roads in the study area, the number of existing mid-block travel lanes are noted together with the classification of each road (e.g., major arterial, primary arterial, secondary arterial, etc.) as currently designated in the Orange County Master Plan of Arterial Highways (MPAH). For the freeway and tollway facilities in the study area, the number of existing general purpose, high occupancy vehicle (HOV) and auxiliary lanes for each freeway/tollway segment are noted. The existing highway network summarized here is based on 2000/2001 conditions because the existing traffic volume data that is applied in this analysis was collected in 2000/2001. Since that time, some circulation system improvement projects that are not reflected in the existing highway network presented in this Section have been completed in the study area. Those recently constructed improvement projects are identified and discussed in Section 3.4 (Future Circulation System).

3.2 EXISTING TRAFFIC CONDITIONS

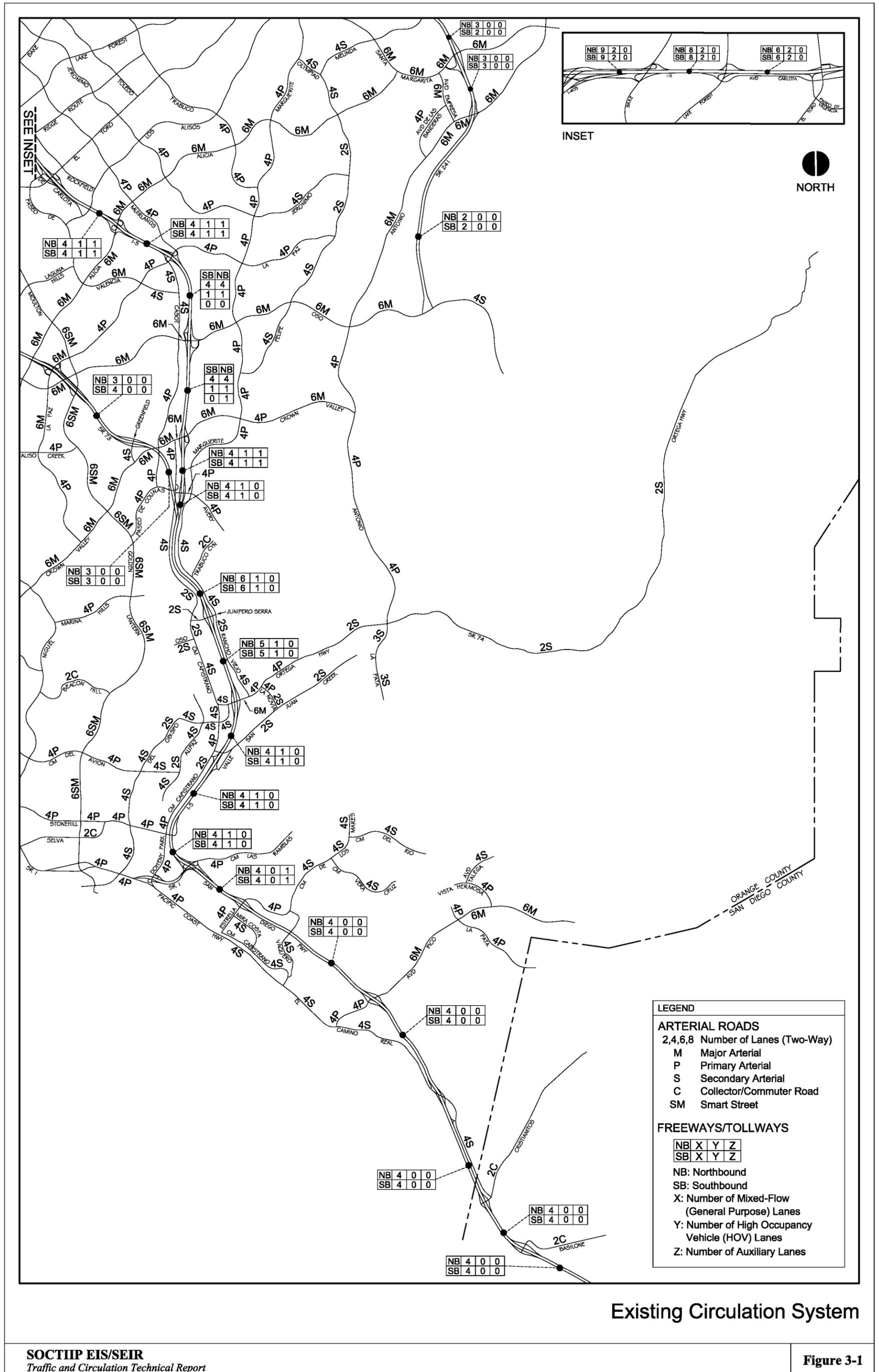
Existing vehicle traffic volumes are summarized in this Section together with existing peak hour operating conditions on the various components of the study area circulation system including arterial roads and intersections, freeway/tollway mainline segments and freeway/tollway ramps.

Average Daily Traffic Volumes

An illustration showing existing average daily traffic (ADT) volumes on the study area circulation system is provided in Appendix C. Existing ADT volumes for the arterial roads in the study area are based on traffic counts collected in late 2000 and early 2001. In early spring 2001, the Crown Valley Parkway bridge across Trabuco Canyon east of Marguerite Parkway was opened to traffic. For this new arterial connection to be reflected in the existing traffic conditions summarized here, traffic counts in the part of the study area bounded by Oso Parkway to the north, Antonio Parkway to the east, Ortega Highway to the south and I-5 to the west were collected approximately four weeks after the bridge was opened.

Existing ADT volumes for the freeway and tollway segments within the study area are either from *2000 Traffic Volumes on the California State Highway System* (Caltrans, 2000 Edition) or from 2000/2001 traffic count data provided by Caltrans for locations in the study area where Caltrans maintains count stations. There are currently count stations on I-5 at the Orange County/San Diego County border, on I-5 north of Alicia Parkway and on SR 73 north of Greenfield Drive.

While the ADT volumes discussed here provide a useful measure to show general levels of traffic on circulation facilities in the study area, the ADT volumes are not applied in this analysis as the basis for determining operating conditions on the study area circulation system. The



reason is that traffic congestion generally occurs during the AM and PM peaks and ADT does not reflect peak conditions very effectively. Existing operating conditions (i.e., levels of service) on the study area circulation system that are based on observed AM and PM peak hour volumes are summarized below.

Peak Hour Intersection Levels of Service

For the existing conditions analysis, AM and PM peak hour turn movement counts were collected in late 2000 and early 2001. An illustration of the existing intersections that were analyzed in the study area is included in Appendix F. Similar to the discussion earlier regarding ADT counts in the vicinity of the recently opened Crown Valley Parkway bridge across Trabuco Canyon, traffic counts for intersections in the part of the study area bounded by Oso Parkway to the north, Antonio Parkway to the east, Ortega Highway to the south and I-5 to the west were collected approximately four weeks after the bridge was opened. For consecutive intersections along a given arterial road, the traffic count data collected for the analysis was assessed for consistency with respect to upstream and downstream traffic flows, particularly where no sidestreet or driveway access exists between intersections (e.g., between ramp intersections on opposite sides of a freeway interchange). In cases where upstream and downstream traffic flows were found to be inconsistent, adjustments were made to the count data, generally controlling to the highest upstream or downstream traffic flow indicated between adjacent intersections.

Existing intersection capacity utilization (ICU) values were calculated using the peak hour traffic count data in combination with the existing lane configuration of each location. Summaries of the existing lane geometric configurations and AM and PM peak hour ICU values are provided in Appendix F and actual turn volumes and ICU calculation worksheets are included in Appendix G. The ICU results indicate that 10 intersections operate worse than the performance standards that have been adopted by the jurisdictional agencies in the study area under 2000/2001 existing conditions. An illustration showing the location of the deficient intersections is provided later in this Section.

Peak Hour Freeway/Tollway Mainline Levels of Service

To determine existing peak hour operating conditions for mainline freeway and tollway segments, peak hour traffic count data was compiled for the freeway and tollway system in the traffic analysis study area. Year 2000/2001 AM and PM peak hour traffic counts were taken from the ADT (i.e., 24-hour) traffic count data provided by Caltrans for locations in the study area where Caltrans maintains count stations (on I-5 at the Orange County/San Diego County border, on I-5 north of Alicia Parkway and on SR 73 north of Greenfield Drive). This data was supplemented with AM and PM peak hour ramp volumes taken from intersection count data that was collected at each location in the study area where freeway/tollway ramps intersect the arterial system. In addition to applying the peak hour ramp counts in the freeway/tollway ramp V/C analysis, the ramp count data was also utilized to determine peak hour freeway/tollway mainline volumes upstream and downstream from the Caltrans count stations.

The resulting AM and PM peak hour observed volumes were applied together with the capacities described earlier in Section 1.5 (Performance Criteria and Standards) for mixed-flow (general

purpose) lanes, HOV lanes and auxiliary lanes to calculate existing peak hour V/C ratios, by direction, for each freeway/tollway segment in the study area. The existing AM and PM peak hour V/C ratios for the freeway and toll road system in the study area are summarized in Appendix D. The results indicate that I-5 between El Toro Road and Oso Parkway operates worse than the LOS E performance standard in the northbound direction during the AM peak hour and in the southbound direction during the PM peak hour under 2000/2001 existing conditions.

Peak Hour Freeway/Tollway Ramp Levels of Service

As mentioned previously, existing AM and PM peak hour ramp volumes were taken from intersection counts that were collected at each location in the study area where freeway/tollway ramps intersect the arterial system. The observed peak hour ramp volumes were applied together with the ramp capacities described earlier in Section 1.5 to calculate existing AM and PM peak hour ramp V/C ratios. The existing peak hour V/C ratios for the freeway and tollway ramps in the study area are summarized in Appendix E. The results indicate that nine freeway ramps and three tollway ramps operate worse than the LOS E performance standard under 2000/2001 existing conditions. An illustration showing the location of the deficient ramps is provided later in this Section.

Summary of Peak Hour Deficiencies

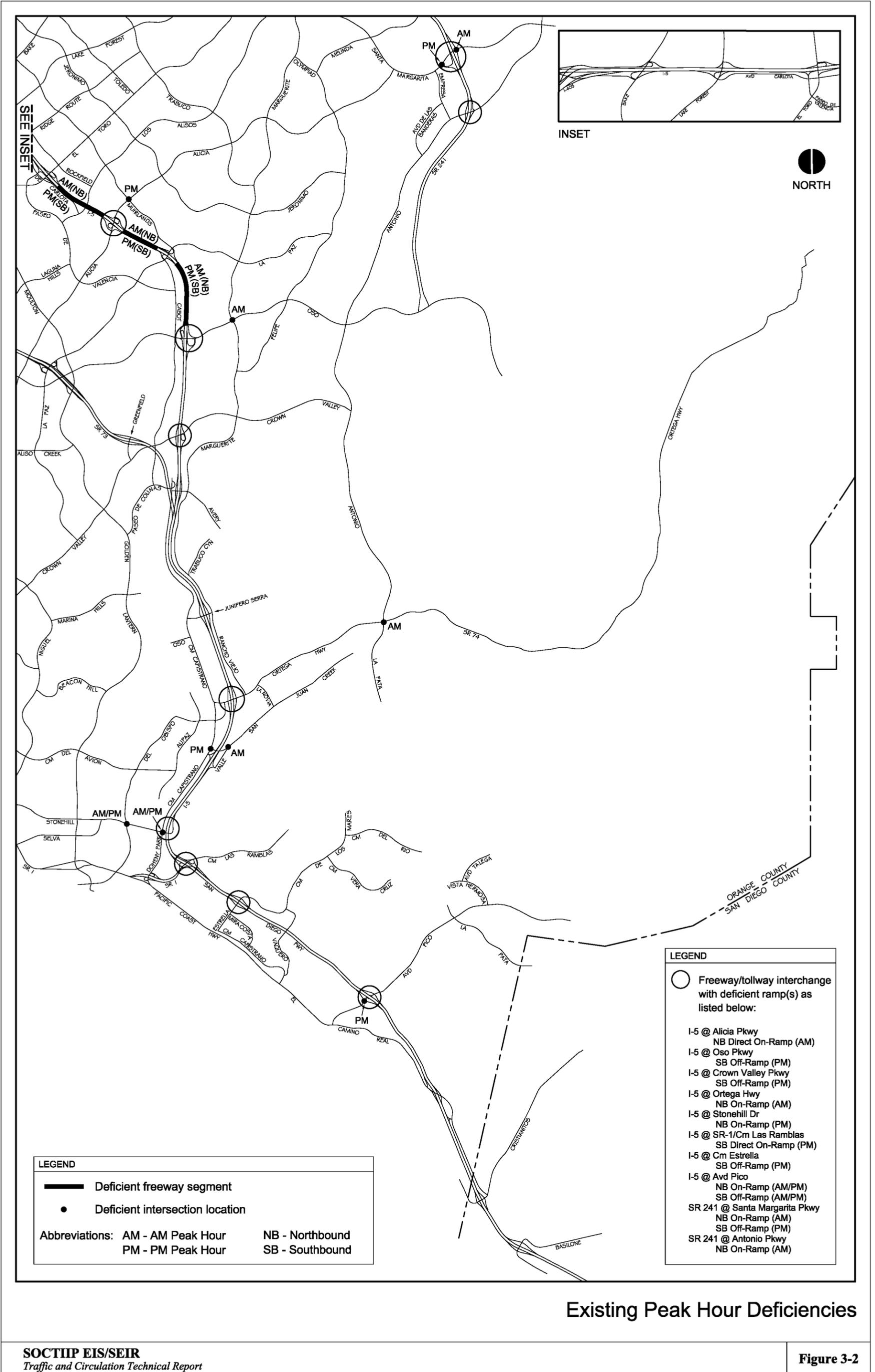
Figure 3-2 illustrates the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where peak hour (AM and/or PM) deficiencies were identified based on 2000/2001 existing conditions. As shown in Figure 3-2, the existing deficiencies are:

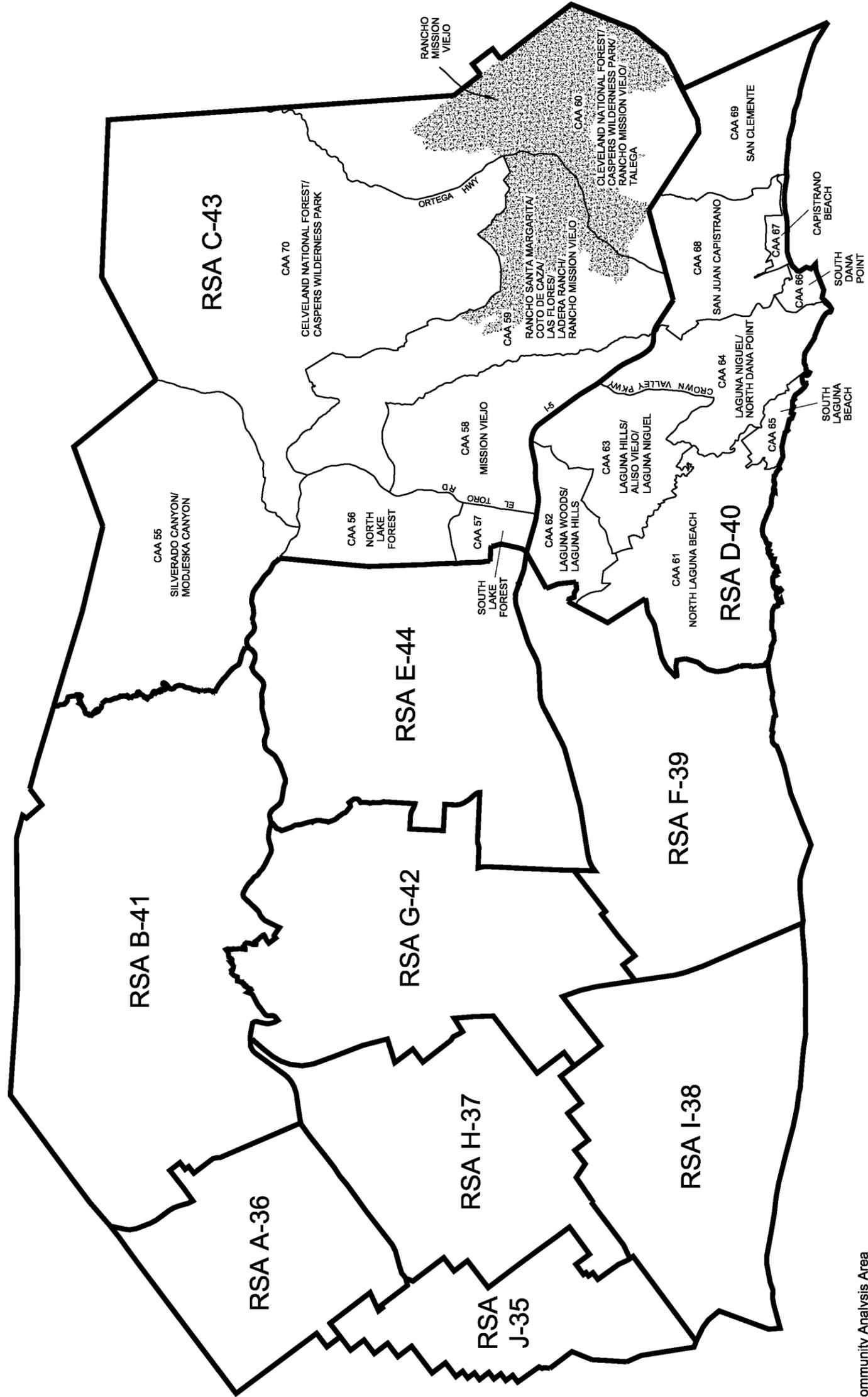
- Three segments of I-5 (Oso Parkway to El Toro Road).
- 12 freeway/tollway ramps (nine I-5 ramps and three SR 241 ramps).
- 10 intersections (six arterial-to-arterial and four arterial-to-freeway/tollway ramps).

3.3 EXISTING AND FUTURE LAND USE

The adopted land use and development growth projections for Orange County are the Orange County Projections-2000 (OCP-2000) projections. The time interval covered by the OCP-2000 projections is from 2000 to 2025. As discussed earlier in Section 1.4.3 (Land Use Assumptions), the OCP-2000 projections provide the primary set of demographic data that is applied in this analysis with the exception of the Cities of Mission Viejo, San Juan Capistrano and San Clemente and the unincorporated community of Ladera where General Plan land use data that is consistent with OCP-2000 is applied.

The existing and future land use and demographic data applied in this analysis is summarized here based on the Community Analysis Areas (CAAs) and Regional Statistical Areas (RSAs) that have been established in Orange County. Figure 3-3 illustrates the combination of RSAs and CAAs that are utilized to summarize the data. While RSAs are used to summarize data throughout Orange County, CAAs are utilized within the two RSAs (C-43 and D-40) in southern Orange County to provide land use/demographic data at a greater level of detail in the SOCTIIP





Abbreviations: CAA - Community Analysis Area
 RSA - Regional Statistical Area

Orange County Demographic Data Summary Areas

study area. Table 3-1 summarizes the population, residential dwelling unit (DU) and employment growth projected between 2000 and 2025 in Orange County. This demographic data is also summarized in Appendix A by the OCTAM 3.1 traffic analysis zones within RSAs C-43 and D-40 (OCTAM 3.1 zones are more detailed subdivisions of the CAAs).

As Table 3-1 indicates, by year 2025 south Orange County is projected to experience a 25 percent increase in housing and a 51 percent increase in employment, compared with countywide increases of 14 percent and 36 percent in housing and employment, respectively. Among the areas in south Orange County that are projected to experience high rates of growth are CAAs 59 and 60 which are in the central part of the SOCTIIP traffic analysis study area. The growth in these areas is predominantly due to future developments that are currently entitled based on approved permits and/or subdivision maps (for example, the Ladera Ranch development in unincorporated Orange County and the Talega/Rolling Hills development in unincorporated Orange County and the City of San Clemente) and the substantial amount of future development assumed in OCP-2000 for the Rancho Mission Viejo (RMV) area. A list of major projects that are included in the OCP-2000 demographic projections in southern Orange County is provided in Appendix A.

3.3.1 FUTURE RANCHO MISSION VIEJO LAND USE

As discussed earlier in Section 1.4.3 (Land Use Assumptions), a range of future land use development scenarios was applied in this analysis for the RMV area that is located in the eastern portion of the study area as shown on Figure 3-3. This Section summarizes the demographic assumptions for the RMV scenarios.

Four sets of demographic data assumptions for the RMV area were used in the 2025 evaluation of the SOCTIIP Alternatives. The first is based on the approximately 21,000 residential DU plan that is included in the OCP-2000 projections (i.e., the demographic projections summarized previously) which represents the currently adopted forecasts for the RMV area. A second is based on the 14,000 DU proposed development plan filed by the landowner with the County of Orange in 2001. This plan is undergoing review and is not yet approved by the County. The two additional special analysis scenarios involving the RMV area are based on the No Action Alternative. One assumes development at the intensity allowed under the existing General Plan zoning designation that is in place for the RMV area (this would result in the development of approximately 6,250 DUs), and the other assumes no future development in the currently undeveloped RMV areas.

In the traffic analysis study area, the RMV site constitutes the largest geographic area for which a land use plan based on approved permits and/or subdivision maps has yet to be entitled. To provide a clear understanding of the differences among the different land use scenarios for RMV, not only in terms of the amount of land use but also the distribution of the different types of land use (e.g., residential and non-residential) throughout the RMV area, the land uses for the three RMV development scenarios (i.e., the 21,000 DU OCP-2000 plan, the 14,000 DU proposed development plan, and the 6,250 DU existing General Plan) are summarized here based on the OCTAM 3.1 zones that are defined in the RMV area. For the 21,000 DU plan, land use at this level of detail was taken from the OCTAM 3.1 regional traffic model which is based on the

Table 3-1 (cont)
EXISTING AND FUTURE DEMOGRAPHIC DATA FOR ORANGE COUNTY

Area	Dwelling Units		Population		Employment	
	2000	2025	Change	2000	2025	Change
Remainder of Orange County (cont)						
RSA B-41	64,980	90,133	38.7%	198,069	275,920	39.3%
RSA E-44	48,171	70,503	46.4%	130,500	201,024	54.0%
RSA F-39	96,853	111,003	14.6%	229,750	277,577	20.8%
RSA G-42	148,326	152,228	2.6%	540,157	591,152	9.4%
RSA H-37	135,552	141,808	4.6%	448,855	504,219	12.3%
RSA I-38	137,174	144,868	5.6%	373,958	421,566	12.7%
RSA J-35	58,333	61,006	4.6%	178,362	197,228	10.6%
Orange County Total	976,133	1,116,855	14.4%	2,852,965	3,418,193	19.8%

Abbreviations: CAA – Community Analysis Area
RSA – Regional Statistical Area

¹ Includes a portion of Rancho Mission Viejo (RMV)

Source: Orange County Projections-2000 (OCP-2000) demographic data and General Plan land use based demographic data for the Cities of Mission Viejo, San Juan Capistrano and San Clemente and the unincorporated community of Ladera.

OCP-2000 projections, whereas zonal land use data for the 14,000 DU proposed development plan was provided by the County of Orange. For the existing General Plan scenario, the 6,250 DUs were assumed to be proportionally distributed throughout the RMV area in the same manner as under the 21,000 DU OCP-2000 plan.

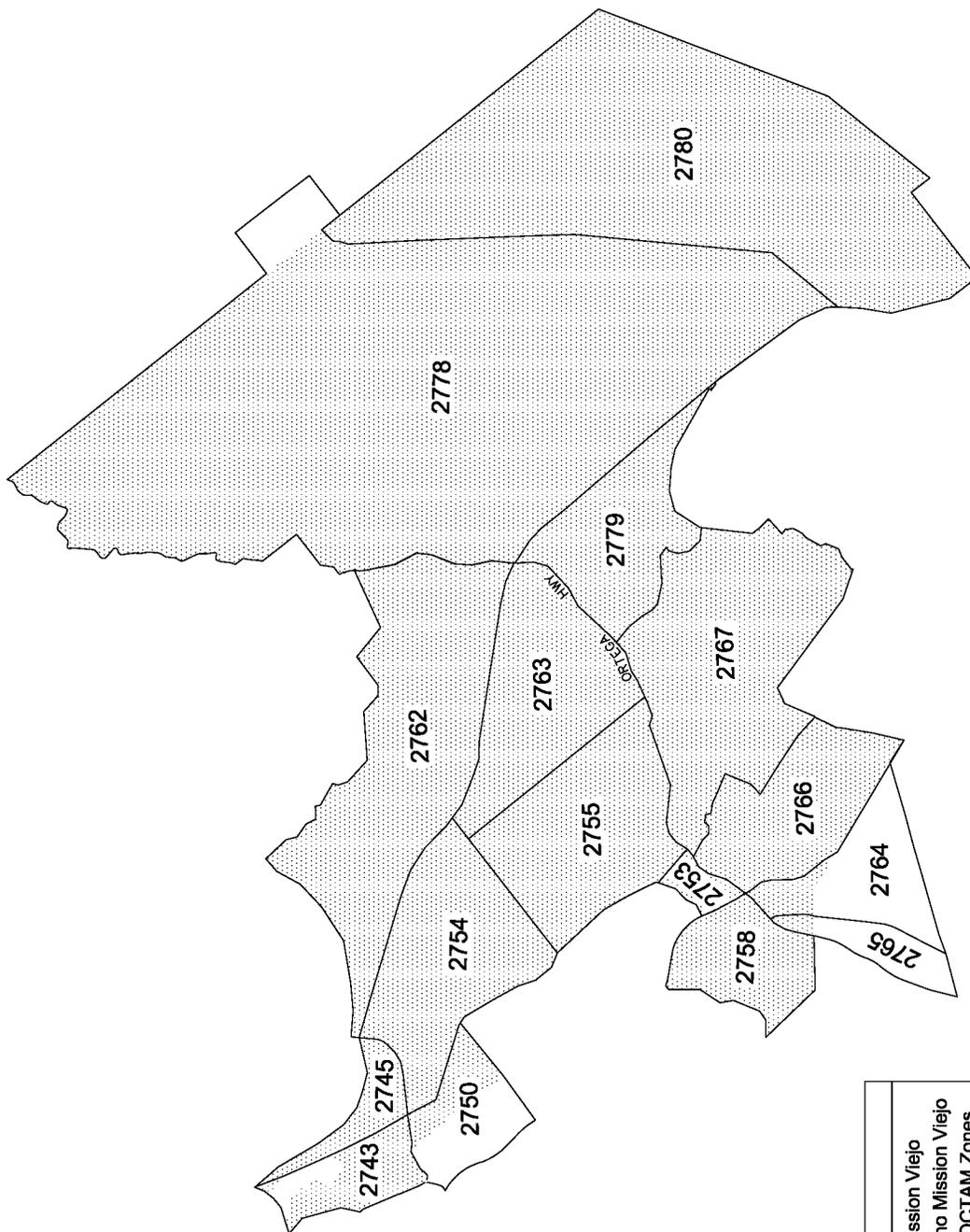
Figure 3-4 illustrates the OCTAM 3.1 zones that encompass the RMV area (note that three of the zones are only partially in the RMV area). Table 3-2 summarizes the zonal demographic data for each of the three RMV development scenarios. The ratio of population to dwelling units varies for the OCP-2000, proposed RMV plan and the existing General Plan because each plan assumes a different blend of single-family versus multi-family dwelling units and the population per household is different for single-family and multi-family dwelling units. No employment is assumed for the existing General Plan because non-residential (employment based) development is not permitted under the General Plan zoning designation currently in place in the RMV area.

3.4 FUTURE CIRCULATION SYSTEM

A number of transportation planning programs currently in place provide direction for planning, developing, operating and maintaining the highway circulation system in southern California. At the regional level, the Regional Transportation Plan (RTP) provides a long-range circulation plan for the regional circulation system. The RTP focuses on regional transportation improvements such as freeway widening, high occupancy vehicle (HOV) system enhancements, and freeway interchange improvements. The RTP for the Counties of Orange, Los Angeles, Riverside, San Bernardino and Ventura is administered by SCAG, and the RTP for San Diego County is administered by SANDAG.

At the sub-regional level, the Orange County MPAH provides a long-range circulation plan for the arterial system within Orange County. The MPAH identifies the existing and proposed arterial components of the countywide circulation system and represents the arterial highway system in the Circulation Element of the County General Plan. The arterial street components of the MPAH are included in the General Plan Circulation Elements of the local jurisdictions in Orange County. The MPAH also identifies the existing and proposed freeway and toll road components of the circulation system but does not define the characteristics of freeway and toll road facilities.

The MPAH is updated regularly by the OCTA based on input from the local jurisdictions and on adopted land use plans and growth forecasts. A primary role served by the MPAH in regional transportation planning is related to the distribution of funds by the OCTA for arterial improvements. A local jurisdiction's General Plan Circulation Element must be consistent with the MPAH in order for that jurisdiction to receive funding from the OCTA for many types of arterial improvements. As a result of the funding connection, the majority of local jurisdictions' General Plan Circulation Elements are consistent with the MPAH. Inconsistencies are corrected by amendments to the applicable local Circulation Element, including environmental clearance, followed by amendment of the MPAH itself if necessary. Although the MPAH and the disbursement of funds for its implementation are overseen by the OCTA, it is the responsibility of each local jurisdiction to implement the MPAH within its corporate boundaries via its Circulation Element.



LEGEND	
	Rancho Mission Viejo
	Non-Rancho Mission Viejo portion of OCTAM Zones

OCTAM 3.1 Zones in the Rancho Mission Viejo Area

Table 3-2
2025 DEMOGRAPHIC DATA FOR THE RANCHO MISSION VIEJO SCENARIOS

OCTAM Zone	----- 21,000 DU OCP-2000 Plan -----		----- 14,000 DU Proposed Plan -----		---- 6,250 DU Existing General Plan ----				
	DUs	Population	Employment	DUs	Population	Employment	DUs	Population	Employment
2743	484	1,109	0	0	0	242	147	337	0
2745	567	1,300	201	89	280	0	172	395	0
2750 *	198	465	287	100	315	0	60	141	0
2753	130	299	423	0	0	1,738	40	91	0
2754	1,255	2,890	0	250	788	0	382	879	0
2755	1,320	3,036	223	742	2,337	1,830	401	923	0
2758	180	415	742	924	2,330	1,458	55	126	0
2762	3,600	8,315	927	2,534	7,281	452	1,094	2,528	0
2763	3,770	8,703	2,839	3,480	10,167	5,518	1,146	2,646	0
2764 *	7	17	30	93	290	0	2	5	0
2765 *	86	199	356	0	0	210	26	60	0
2766	440	1,040	0	0	0	525	134	316	0
2767	4,083	9,650	3	2,443	6,212	116	1,242	2,933	0
2778 *	2,300	5,432	233	1,833	5,384	262	699	1,651	0
2779	340	802	0	108	340	0	103	244	0
2780	1,800	4,256	4,019	1,404	4,228	3,858	547	1,294	0
Total	20,560	47,928	10,283	14,000	39,952	16,209	6,250	14,569	0

* Rancho Mission Viejo portion only

Abbreviations: OCTAM – Orange County Transportation Analysis Model, Version 3.1
DU – Dwelling Unit
OCP-2000 – Orange County Projections-2000

As mentioned in Section 1.4.4 (Highway Network Assumptions), for the long-range analysis of the SOCTIIP Alternatives, two levels of future circulation system improvement are applied, one assuming implementation of only those MPAH and RTP improvements that are currently funded and/or committed, and another assuming buildout of the MPAH and RTP. Committed improvements include those that are in a capital improvement program of the County of Orange or the local jurisdictions within the study area, or projects that are currently funded by Caltrans. Also included in the committed highway network are improvements that will be built within the time period prior to the year 2025 by a specific funding source, for example the City of San Juan Capistrano's Reimbursement Agreement and Nexus Fee Program and the City of San Clemente's Regional Circulation Financing and Phasing Program (RCFPP). In addition, improvements that are part of conditions of approval for development that is included in the long-range demographic data forecasts (i.e., OCP-2000 projections) are also assumed to be committed.

Figure 3-5 illustrates the committed highway network in the SOCTIIP traffic analysis study area. Table 3-3 lists the improvements contained in the committed network together with the source of funding or source of commitment according to the definition noted above. The major roadway improvements that are committed include widening of Crown Valley Parkway to eight lanes and construction of the I-5/Avenida Vista Hermosa interchange which was completed in 2002. Improvements that are planned for the SR 73 and SR 241 toll roads as part of the Foothill/Eastern Transportation Corridor Agency (TCA) Capital Improvement Program (CIP) are also indicated. Because the existing traffic conditions summarized earlier in Section 3.2 (Existing Traffic Conditions) is based on traffic volume data collected in 2000/2001, circulation system improvements constructed in the study area since that time are treated as future committed improvements in this analysis. As indicated in Table 3-3, in addition to the I-5/Avenida Vista Hermosa interchange, other improvements constructed in the study area since 2000/2001 include the construction of northbound and southbound auxiliary lanes on I-5 between Avenida Pico and Avenida Vista Hermosa which were constructed in association with the I-5/Avenida Vista Hermosa interchange and the improvement of northbound I-5 between Alicia Parkway and Lake Forest Drive.

Figure 3-6, which illustrates the highway network based on buildout of the MPAH and RTP, highlights the additions/improvements that are not included in the committed network (i.e., improvements that are non-committed). Table 3-4 summarizes the non-committed freeway and arterial improvements that are planned in the study area. The major non-committed MPAH improvements include the eastward extension of Crown Valley Parkway to Coto de Caza and the southward connection of Avenida La Pata into San Clemente. Also included are non-committed I-5 freeway improvements that are identified in the SCAG RTP, the SANDAG RTP, or the *I-5 Route Concept Report* (Caltrans, April 2000). The Route Concept Report is considered a subset of the RTP. In Appendix F, tabular summaries are provided showing the committed and MPAH/RTP buildout lane geometric configurations applied in the year 2025 intersection analysis.

3.4.1 FUTURE RANCHO MISSION VIEJO CIRCULATION SYSTEM

As discussed earlier in Section 3.3.1 (Future Rancho Mission Viejo Land Use), four development scenarios for the undeveloped RMV area are studied in this analysis. Two of the scenarios (the

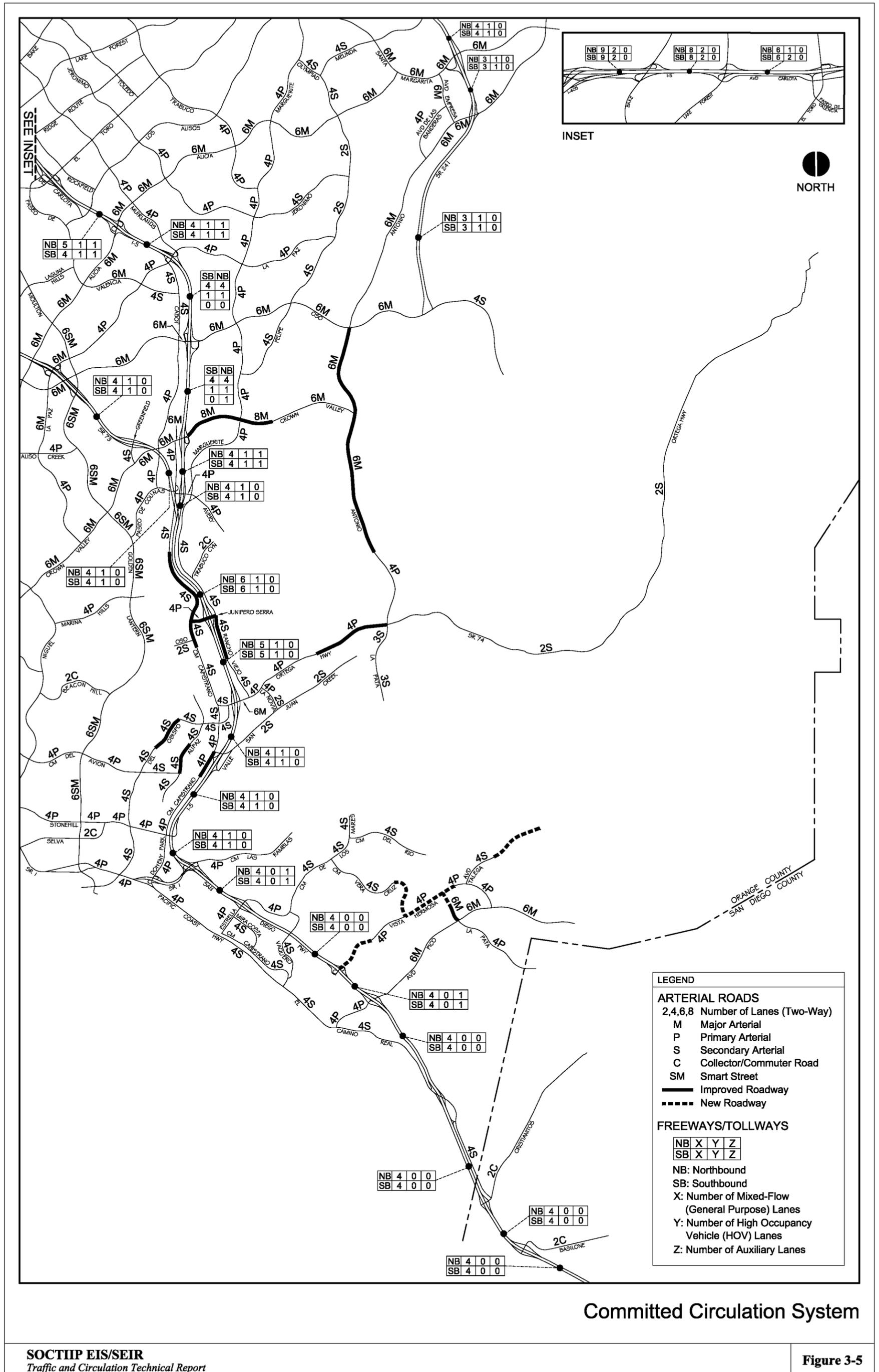


Table 3-3
COMMITTED CIRCULATION SYSTEM IMPROVEMENTS

Facility	Jurisdiction	Improvement	Source (a)
Alipaz St (north of Cm Del Avion)	San Juan Capistrano	Widen to four lanes.	1
Antonio Pkwy (Oso Pkwy to southern boundary of Ladera Ranch)	County of Orange	Widen to six lanes.	2
Avd La Pata (Avd Pico to Avd Vista Hermosa)	San Clemente	Construct as a six-lane major arterial.	3
Avd Talega (east of Avd Vista Hermosa)	San Clemente	Extend as a four-lane secondary arterial.	4
Avd Vista Hermosa (Cm Vera Cruz to north of Avd La Pata)	San Clemente	Construct as a four-lane primary arterial.	3
Avd Vista Hermosa (Calle Frontera to I-5)	Caltrans/San Clemente	Construct as a four-lane primary arterial with an interchange at I-5.	5
Cm Capistrano (south of Oso Rd to San Juan Capistrano city limits)	San Juan Capistrano	Widen to four lanes.	1
Cm Capistrano (south of San Juan Creek Rd)	San Juan Capistrano	Widen to four lanes.	1
Cm Vera Cruz (west of Avd Vista Hermosa)	San Clemente	Construct as a four-lane secondary arterial.	3
Crown Valley Pkwy (I-5 to east of Trabuco Creek bridge)	County/Mission Viejo	Widen to eight lanes.	2
Del Obispo St (Aguacate Rd to Paseo De La Paz)	San Juan Capistrano	Widen to four lanes.	1
I-5 (Alicia Pkwy to Lake Forest Dr)	Caltrans	Restripe northbound to provide fifth general purpose lane between Alicia Pkwy and El Toro Rd and to remove one of the two high occupancy vehicle (HOV) lanes between El Toro Rd and Lake Forest Dr.	5

Table 3-3 (cont)
COMMITTED CIRCULATION SYSTEM IMPROVEMENTS

Facility	Jurisdiction	Improvement	Source (a)
I-5 (Avd Pico to Avd Vista Hermosa)	Caltrans	Construct northbound and southbound auxiliary lanes.	5
Junipero Serra Rd (Cm Capistrano to Rancho Viejo Rd)	San Juan Capistrano	Widen to four lanes.	1
Ortega Hwy (Via Cordova to San Juan Capistrano city limits)	San Juan Capistrano	Widen to four lanes.	1,7
Ortega Hwy (San Juan Capistrano city limits to Antonio Pkwy)	County of Orange	Widen to four lanes.	6,7
Rancho Viejo Rd (south of Junipero Serra Rd)	San Juan Capistrano	Widen to four lanes.	1
SR 73 (north of I-5)	TCA/Caltrans	Widen to provide four general purpose lanes in each direction and one HOV lane in each direction.	8
SR 241 (Oso Pkwy to Santa Margarita Pkwy)	TCA/Caltrans	Widen to provide three general purpose lanes in each direction and one HOV lane in each direction.	8
SR 241 (north of Santa Margarita Pkwy)	TCA/Caltrans	Widen to provide four general purpose lanes in each direction and one HOV lane in each direction.	8

(a) Sources: 1 – Implemented through the City of San Juan Capistrano Reimbursement Agreement and Nexus Fee Program.
2 – Conditioned for implementation with development of Ladera Ranch.
3 – Implemented through the City of San Clemente Regional Circulation Financing and Phasing Program (RCFPP).
4 – Conditioned for implementation with development of Talega.
5 – Caltrans improvement project completed in 2002.
6 – County of Orange improvement project.
7 – Caltrans improvement project.
8 – Implemented through the Foothill/Eastern Transportation Corridor Agency (TCA) Capital Improvement Plan (CIP).

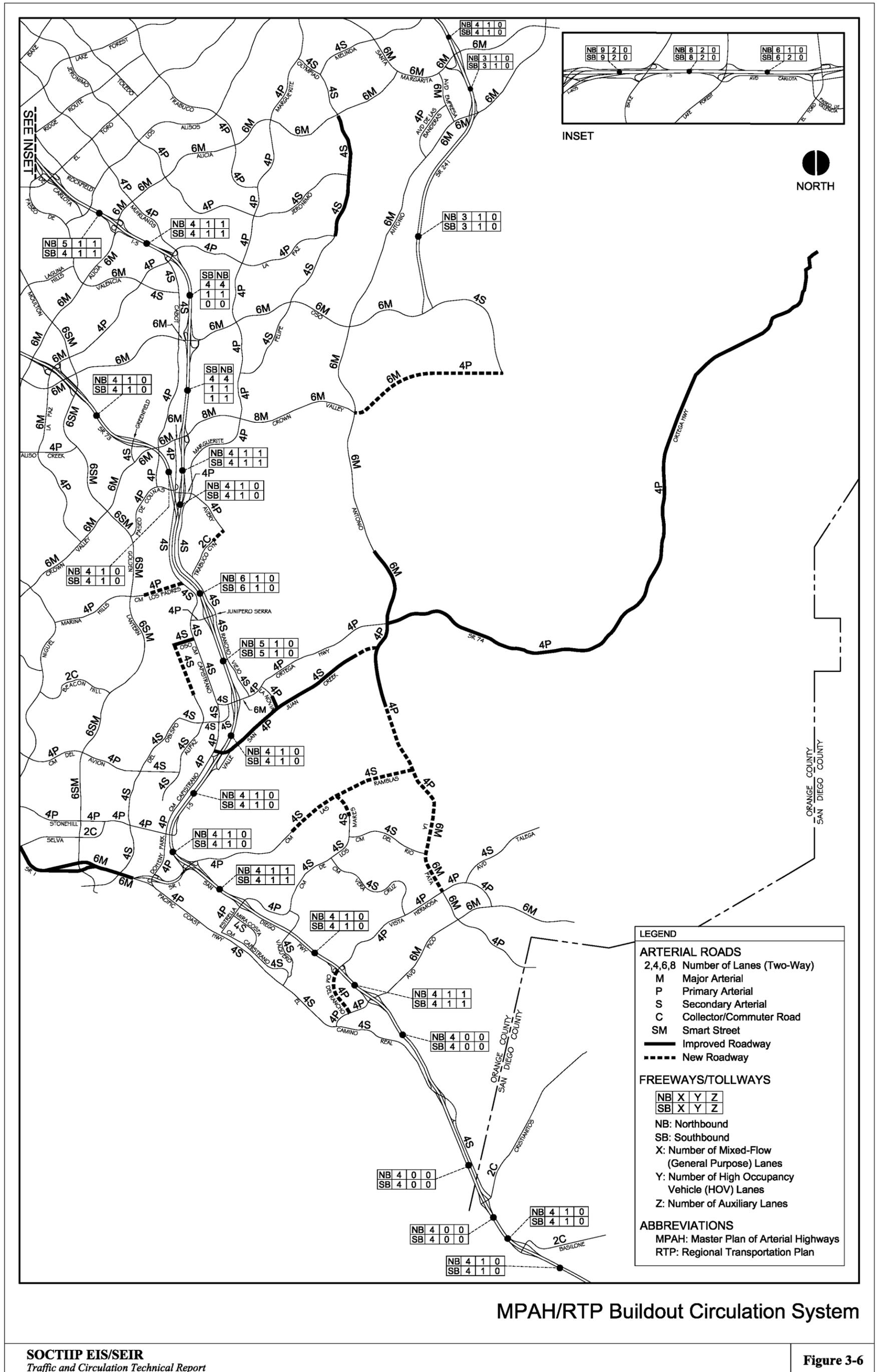


Table 3-4
NON-COMMITTED MPAH/RTP CIRCULATION SYSTEM IMPROVEMENTS

Facility	Jurisdiction	Improvement	Source (a)
Alipaz St (north of Del Obispo St to Oso Rd)	San Juan Capistrano	Construct as four-lane secondary arterial.	MPAH
Antonio Pkwy (south of Ladera Ranch to Ortega Hwy/SR 74)	County of Orange	Widen to six lanes.	MPAH
Avd La Pata (south of Ortega Hwy/SR 74)	County of Orange	Widen to four lanes.	MPAH
Avd La Pata (south of Ortega Hwy/SR 74 to San Clemente city limits)	County of Orange	Construct as a four-lane primary arterial.	MPAH
Avd La Pata (San Clemente city limits to Avd Vista Hermosa)	San Clemente	Construct as a six-lane major arterial.	MPAH
Cm De Los Mares (east of Cm Del Rio to Cm Las Ramblas)	San Clemente	Construct as four-lane secondary arterial.	MPAH
Cm Del Rancho (I-5 to Avd Pico)	San Clemente	Construct as a four-lane primary arterial.	MPAH
Cm Las Ramblas (current termination east to Avd La Pata)	San Juan Capistrano/ San Clemente	Construct as four-lane secondary arterial.	MPAH
Cm Los Padres (east of St of the Golden Lantern to Cm Capistrano)	San Juan Capistrano	Construct as four-lane primary arterial.	MPAH
Crown Valley Pkwy (Antonio Pkwy to Oso Pkwy)	County of Orange	Construct as six-lane major arterial east of Antonio Pkwy and as four-lane primary arterial west of Oso Pkwy.	MPAH
I-5 (Oso Pkwy to Crown Valley Pkwy)	Caltrans	Add southbound auxiliary lane.	CT-RCR
I-5 (Pacific Coast Hwy/SR 1 to Avd Pico)	Caltrans	Add northbound and southbound high occupancy vehicle (HOV) lanes.	SCAG RTP

Table 3-4 (cont)
NON-COMMITTED MPAH/RTP CIRCULATION SYSTEM IMPROVEMENTS

Facility	Jurisdiction	Improvement	Source (a)
I-5 (approximately one-half mile south of Cristianitos Rd to south of Basilon Rd)	Caltrans	Add northbound and southbound HOV lanes.	SANDAG RTP
La Novia St (north of San Juan Creek Rd)	San Juan Capistrano	Widen to four lanes.	MPAH
Olympiad Rd (Alicia Pkwy to La Paz Rd)	Mission Viejo	Widen to four lanes.	MPAH
Ortega Hwy/SR 74 (east of Antonio Pkwy/Avd La Pata to Orange County/San Diego County border)	County of Orange	Widen to four lanes.	MPAH
Oso Rd (Alipaz St to Cm Capistrano)	San Juan Capistrano	Widen to four lanes.	MPAH
Pacific Coast Hwy/SR 1 (north of Doheny Park Rd to Selva Rd)	Dana Point	Widen to six lanes.	MPAH
San Juan Creek Rd (Cm Capistrano to San Juan Capistrano city limits)	San Juan Capistrano	Widen to four lanes.	MPAH
San Juan Creek Rd (San Juan Capistrano city limits to Avd La Pata)	San Juan Capistrano	Construct as four-lane secondary arterial.	MPAH

(a) Sources: CT-RCR – Caltrans I-5 Route Concept Report (April 2000)
MPAH – Orange County Master Plan of Arterial Highways
RTP – Regional Transportation Plan
SANDAG – San Diego Association of Governments
SCAG – Southern California Association of Governments

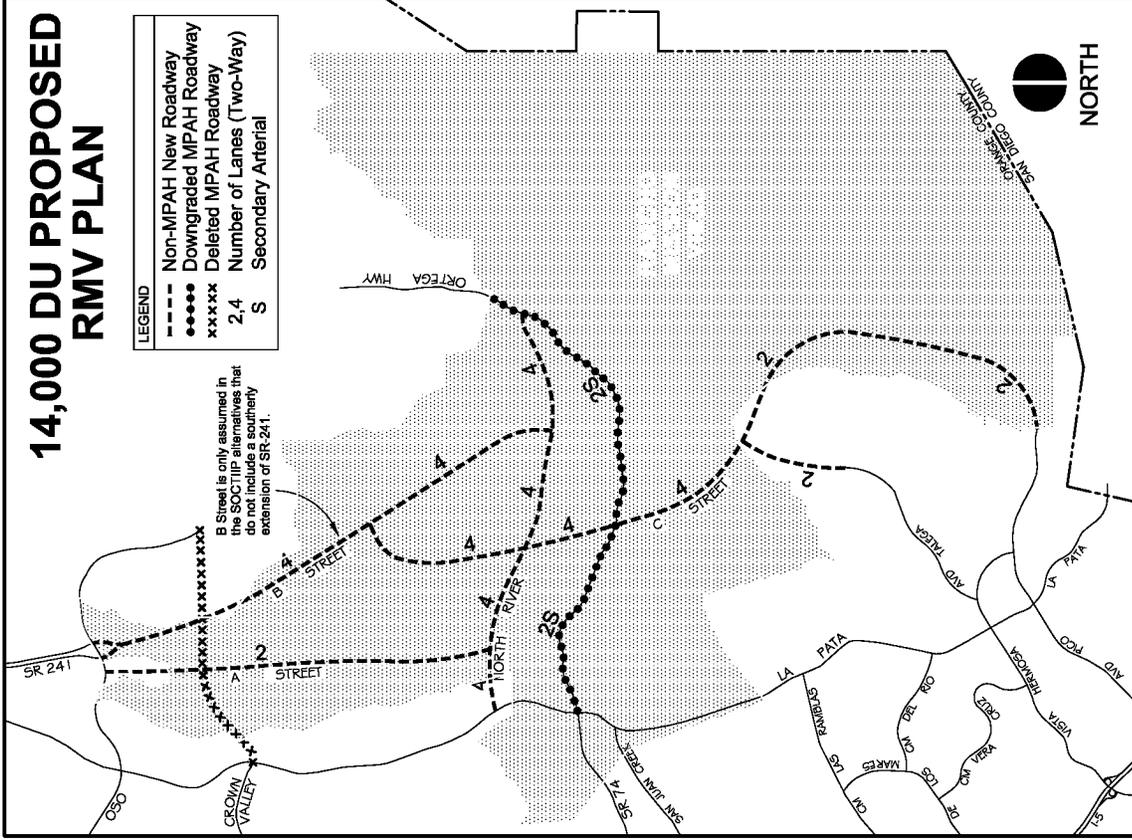
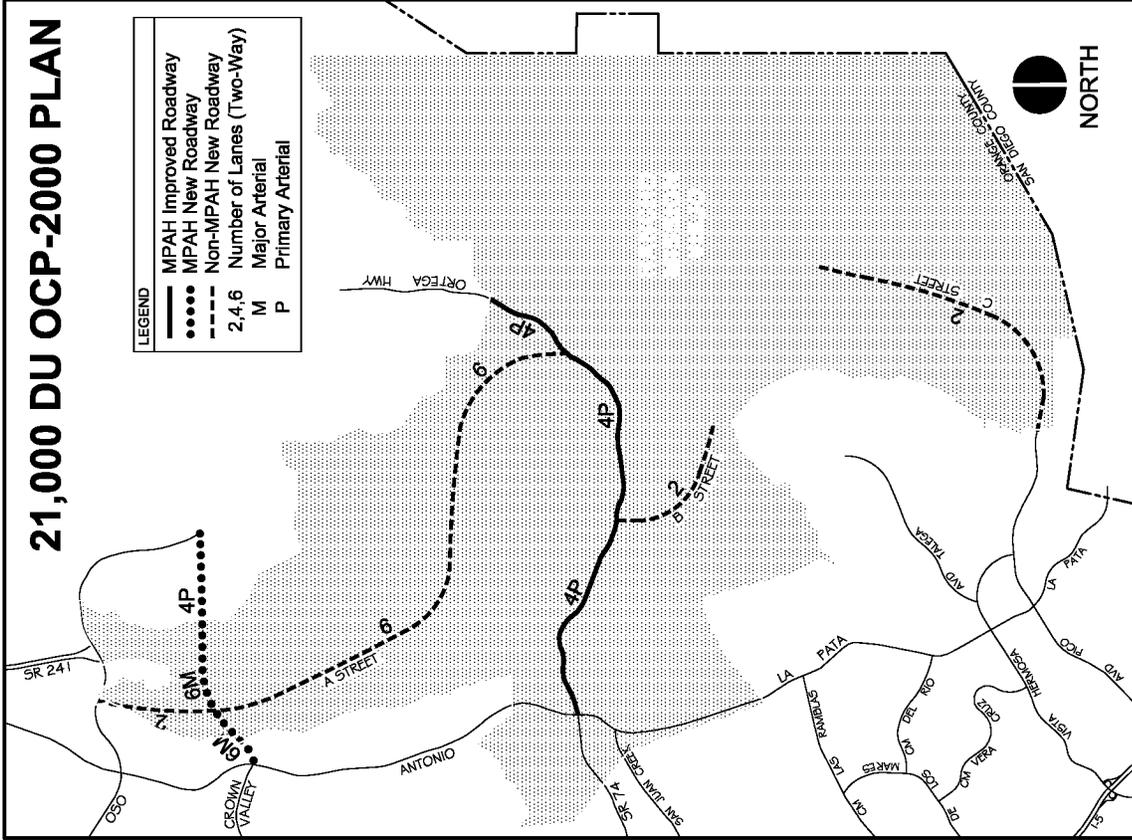
21,000 DU OCP-2000 plan and the 14,000 DU proposed RMV Plan) are applied in the 2025 evaluation of the SOCTIIP Alternatives, and the other two scenarios (the 6,250 DU existing General Plan and a scenario that assumes no future RMV development) are treated as special analysis scenarios. This Section describes the RMV circulation system assumptions that are applied for the four RMV development scenarios.

Although a specific roadway access plan has not formally been prepared for the 21,000 DU plan that is assumed in OCP-2000, through consultation with the OCTA and the County of Orange, those agencies have recommended the use of a general roadway plan that provides access between the RMV development areas and the surrounding MPAH arterial network. This type of general access plan was also applied in the special analysis scenario that is based on the existing General Plan zoning designations in the RMV area (i.e., 6,250 DU development plan). Through correspondence between the County of Orange and the OCTA, the County of Orange provided an access plan to apply in the analysis of the 14,000 DU proposed RMV plan. The access plan includes proposed changes to the MPAH. For the scenario in which no future RMV development is assumed, no additional roadway improvements beyond those that are currently included in the MPAH were assumed in the RMV area.

Figure 3-7 illustrates the general RMV circulation system that was applied for the 21,000 DU OCP-2000 plan and the RMV circulation plan provided by the County of Orange for the analysis of the 14,000 DU proposed RMV plan under conditions without the FTC-S. The circulation system that serves the OCP-2000 plan is comprised of planned MPAH facilities (i.e., the widening of Ortega Highway and the construction of the easterly extension of Crown Valley Parkway) and additional non-MPAH facilities that provide a realistic means for providing access between the MPAH circulation system and future land uses in the RMV area. This circulation plan was applied in the evaluation of each of the SOCTIIP Alternative scenarios that are based on the 21,000 DU OCP-2000 plan for RMV. This circulation plan was also applied in the special analysis scenario that assumes development of the RMV area at the intensity allowed under the existing General Plan zoning (i.e., a maximum of 6,250 DUs).

The circulation system for the 14,000 DU proposed RMV plan is comprised of a roadway plan that substantially modifies the current MPAH plan in the RMV area. Under the proposed plan, Ortega Highway between Antonio Parkway and the eastern boundary of RMV is assumed to be downgraded on the MPAH to a two-lane roadway (its current configuration) and the easterly extension of Crown Valley Parkway (between Antonio Parkway and Oso Parkway) is assumed to be deleted from the MPAH. In place of the current MPAH improvements is a non-MPAH roadway system that, similar to the general circulation plan described earlier for the OCP-2000 plan, is designed to provide access between the land uses associated with the 14,000 DU proposed RMV plan and the surrounding MPAH circulation system. One of the added facilities, B Street, is a four-lane arterial that extends from Oso Parkway to North River Road generally along the alignment that is proposed for the FTC-S under the FEC alignment. As noted in the illustration, such an arterial extension is only assumed in those SOCTIIP Alternatives that do not include the southerly extension of the FTC.

It may appear that the circulation system for the proposed RMV plan provides greater capacity because it contains more roadways than the OCP-2000 plan circulation system. However the



2025 Circulation System in the Rancho Mission Viejo Area

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

Figure 3-7

two plans actually provide a fairly comparable amount of new (future) capacity when measured in terms of the amount of roadway lane miles that would be added to the existing circulation system by each plan. The circulation system assumed for the proposed RMV plan, when compared with the circulation system assumed for the OCP-2000 development plan, provides the following:

- Approximately 12 percent more miles of new roadway lanes with B Street included (i.e., in the SOCTIIP Alternatives that do not include the FTC-S).
- Approximately 17 percent fewer miles of new roadway lanes without B Street included (i.e., in the SOCTIIP Alternatives that include the FTC-S).

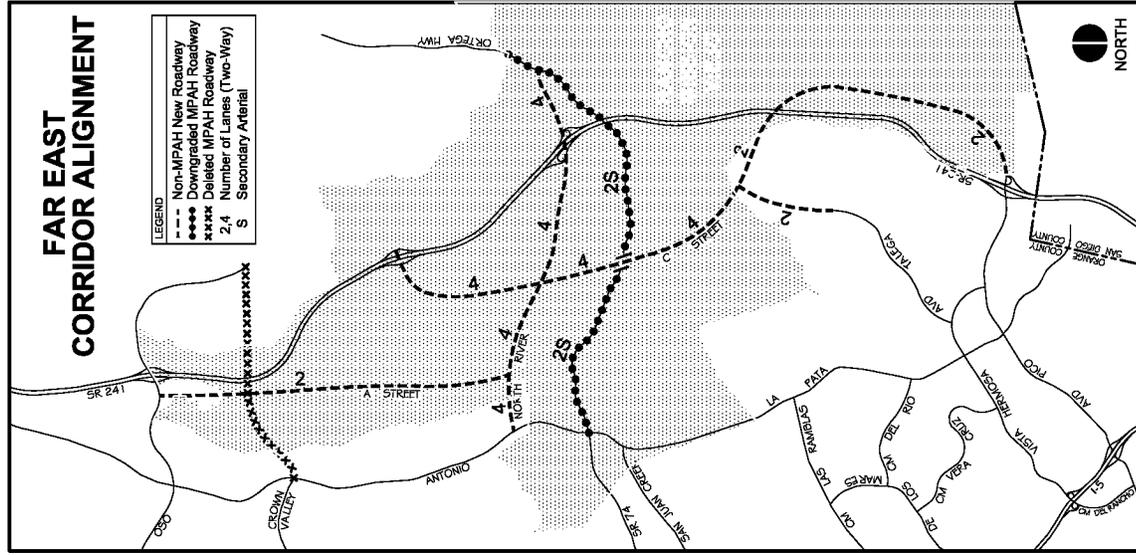
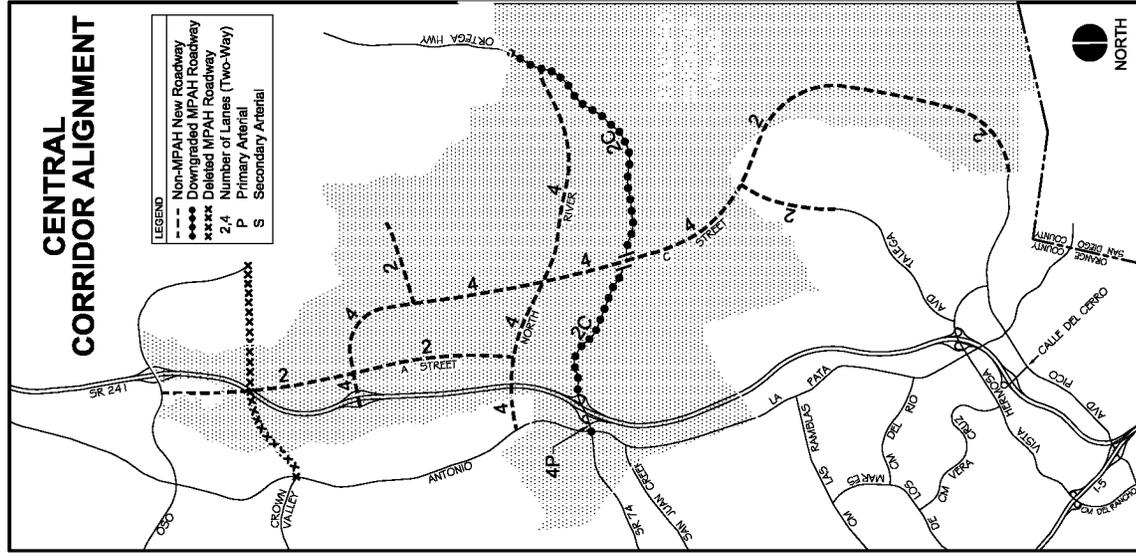
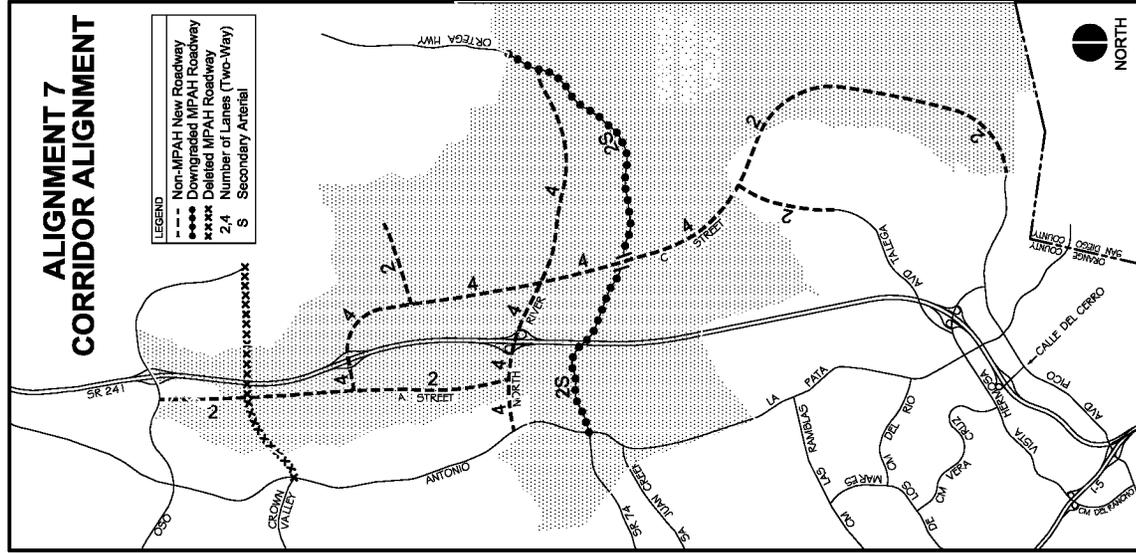
The circulation system shown in Figure 3-7 for the 14,000 DU proposed RMV plan is the system that was suggested by the County to serve the future land uses in the RMV area under conditions without the FTC-S. The County also suggested circulation plans to assume within the RMV area under conditions with the three basic SOCTIIP alignments (the FEC, CC and A7C) for the FTC-S. Figure 3-8 illustrates the RMV circulation plans that are applied in the analysis scenarios that are based on the 14,000 DU proposed RMV plan and the SOCTIIP Build Alternatives that include the FTC-S.

As the illustration indicates, the circulation plan with the FEC is essentially the same as the circulation plan discussed earlier for no-corridor conditions but with the FTC-S assumed in place of B Street, and FTC-S interchanges assumed at C Street and North River Road. For the CC and A7C alignments, C Street is oriented to the west with an interchange at the FTC-S and also intersecting A Street. In the A7C alignment, a FTC-S interchange is provided at North River Road. However, in the CC alignment, a FTC-S interchange is assumed at Ortega Highway rather than at North River Road because it is not possible to construct an interchange on the CC alignment in the vicinity of North River Road without encroaching on the dedicated Ladera Open Space in that area.

The FTC-S interchange at C Street is assumed to be constructed as part of the 14,000 DU proposed RMV development plan and is not part of the FTC-S that is proposed in the SOCTIIP Build Alternatives that include the FTC-S. In the analysis scenarios that are based on the 21,000 OCP-2000 plan for RMV and the SOCTIIP Build Alternatives that include the FTC-S, an FTC-S interchange is assumed at Crown Valley Parkway. This interchange is assumed to be constructed as part of the 21,000 DU OCP-2000 RMV development plan and is not part of the FTC-S that is proposed in the SOCTIIP Build Alternatives that include the FTC-S.

3.5 FUTURE TRAFFIC DEMAND AND TRAVEL PATTERNS

Future traffic forecasts in the SOCTIIP study area are substantially influenced by the future traffic demand and travel patterns that are forecast for south Orange County. This Section discusses and summarizes the traffic demand and travel patterns that are forecast by year 2025. Included in this Section is discussion that specifically focuses on the traffic demand of the various land use scenarios that are analyzed in the RMV area and on the volume and distribution pattern of traffic that is forecast on I-5 at the Orange County/San Diego County border.



2025 With-Corridor Circulation System With the Proposed RMV Plan

Figure 3-8

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

3.5.1 ORANGE COUNTY TRAFFIC DEMAND

In this Section, the existing and future traffic demand associated with the land use development and growth projections presented earlier in Section 3.3 (Existing and Future Land Use) is summarized. The traffic demand within Orange County was determined using the SCSAM sub-area traffic model (refer to Section 1.4.2 for a summary discussion of this model). Figure 3-9 illustrates the existing and future ADT traffic demand for the RSAs in Orange County. This ADT traffic demand data was further subdivided according to the CAAs in the two RSAs (C-43 and D-40) that encompass the SOCTIIP study area. The CAAs are illustrated in Figure 3-10. Table 3-5 summarizes the existing and future ADT traffic demand at the CAA level in south Orange County and at the RSA level for the remainder of Orange County. This 2025 ADT traffic demand is based on the 21,000 DU OCP-2000 land use plan for the RMV area.

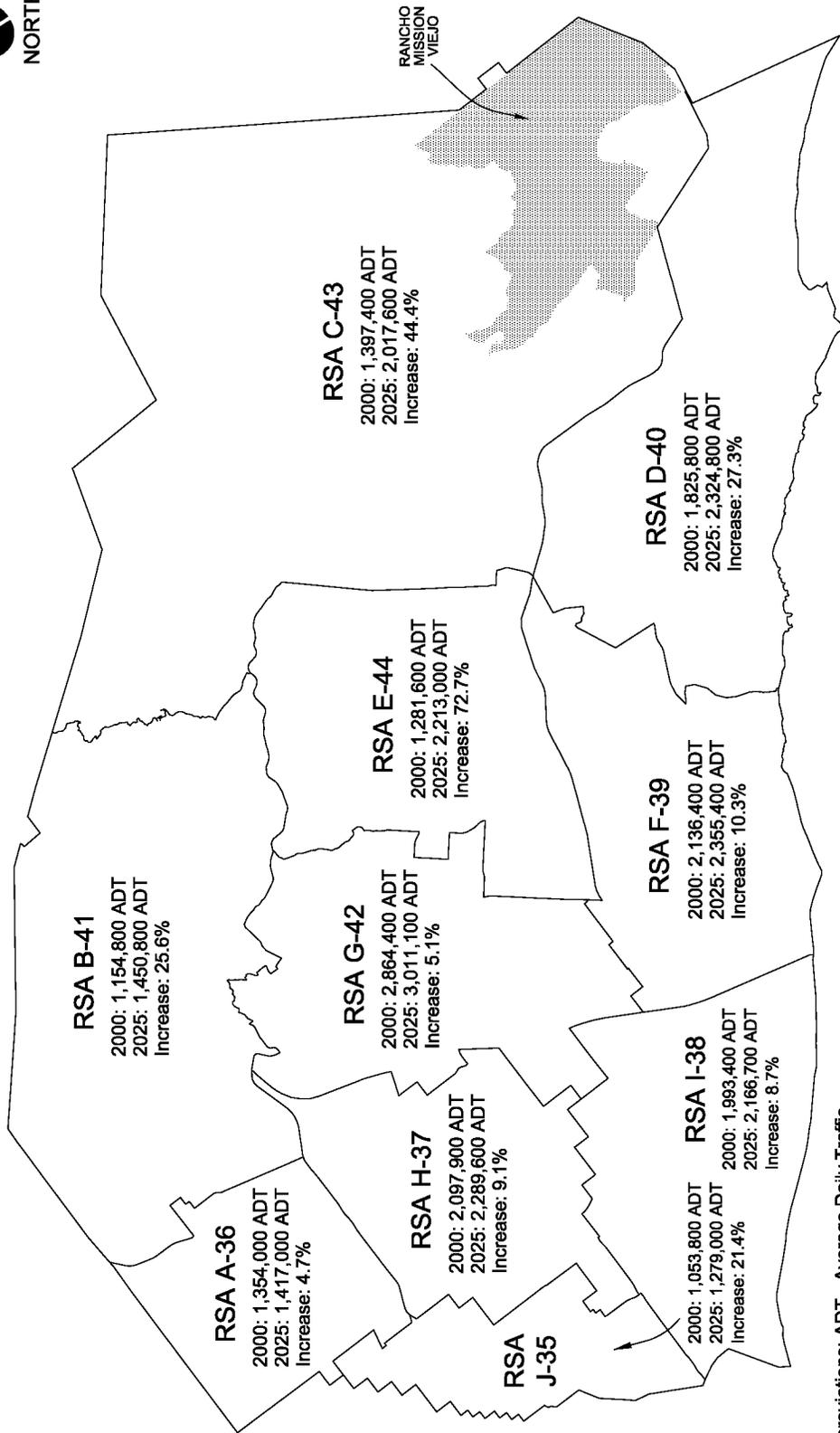
Consistent with the countywide land use data discussed earlier in Section 3.3, traffic demand in south Orange County is projected to increase at a greater rate than the countywide average. A 35 percent growth in traffic is forecast in south Orange County compared to a 20 percent growth countywide. Substantial increases in traffic demand are projected in CAAs 59 and 60 where the Ladera Ranch and Talega/Rolling Hills developments are under construction and where the RMV area is located.

3.5.2 FUTURE RANCHO MISSION VIEJO TRAFFIC DEMAND

The SCSAM sub-area traffic model was also utilized to estimate the 2025 traffic demand for the three RMV development scenarios (the 21,000 DU OCP-2000 plan, the 14,000 DU proposed plan, and the 6,250 DU existing General Plan) that were analyzed. Refer to Section 3.3.1 (Future Rancho Mission Viejo Land Use) for a detailed summary of the land use data associated with each of the three plans. The resulting 2025 ADT traffic demand for the RMV areas in the parts of the two CAAs that encompass RMV (CAAs 59 and 60) is summarized in Table 3-6.

Table 3-6
 2025 ADT TRAFFIC DEMAND FOR THE RANCHO MISSION VIEJO DEVELOPMENT SCENARIOS

Scenario	ADT for RMV Portion of CAA 59	ADT for RMV Portion of CAA 60	Total RMV ADT
21,000 DU OCP-2000 Plan	127,000	110,400	237,400
14,000 DU Proposed Plan	116,300	67,800	184,100
6,250 DU Existing General Plan	31,300	23,200	54,500

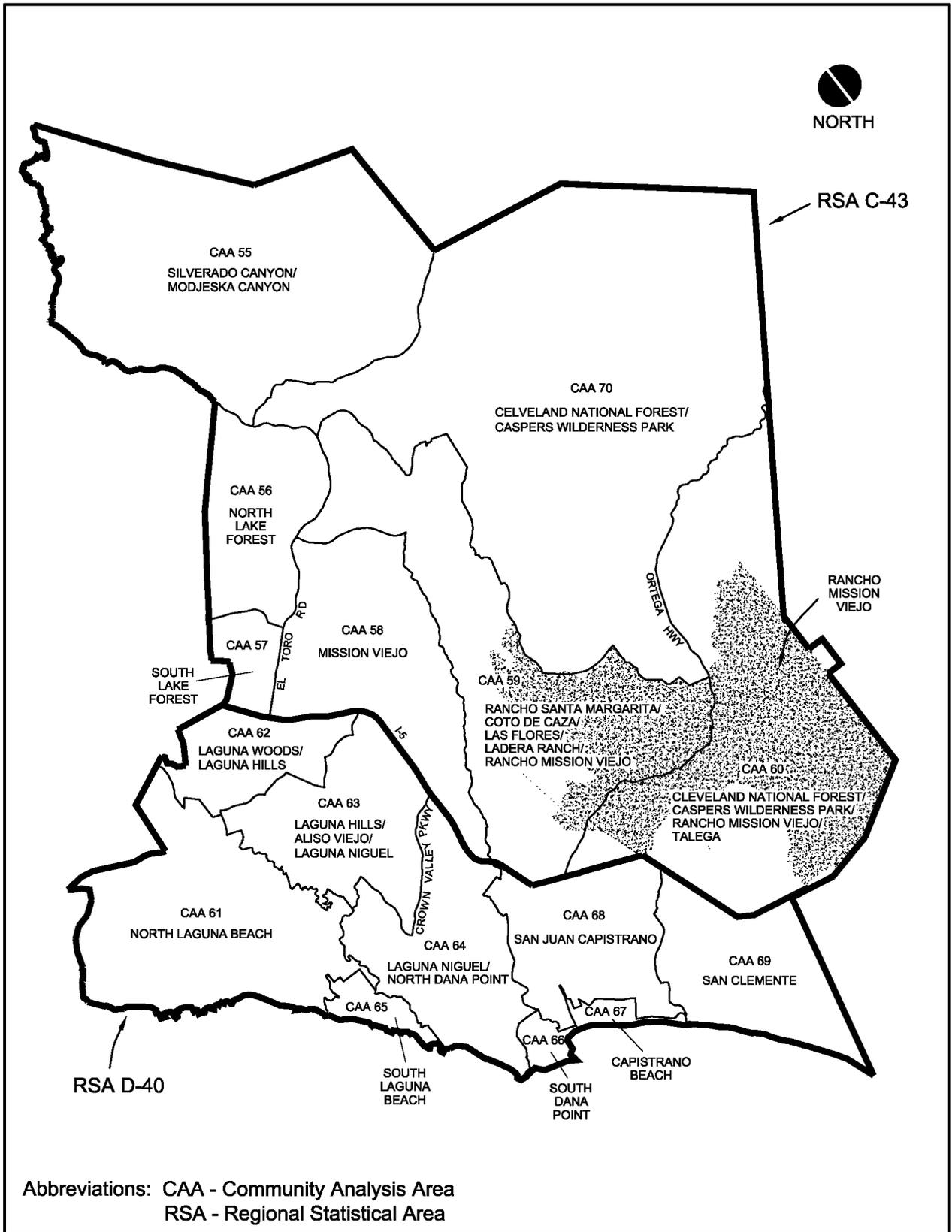


Abbreviations: ADT - Average Daily Traffic
 RSA - Regional Statistical Area
 Source: South (Orange) County Sub-Area Model (SCSAM)

Existing and Future ADT Traffic Demand in Orange County

Figure 3-9

SOCTIP EIS/SEIR
 Traffic and Circulation Technical Report



South Orange County CAA Map

Table 3-5
 EXISTING AND FUTURE ADT TRAFFIC DEMAND IN ORANGE COUNTY

Area	2000 ADT	2025 ADT	Increase
South Orange County			
CAA 55	6,900	10,600	53.6%
CAA 56	260,000	408,500	57.1%
CAA 57	152,700	158,100	3.5%
CAA 58	572,100	604,300	5.6%
CAA 59 ¹	299,200	540,900	80.8%
CAA 60 ¹	12,600	176,500	1,300.8%
CAA 70	93,900	118,700	26.4%
Sub-Total (RSA C-43)	1,397,400	2,017,600	44.4%
CAA 61	181,300	213,900	18.0%
CAA 62	284,100	323,800	14.0%
CAA 63	395,400	545,600	38.0%
CAA 64	299,400	343,700	14.8%
CAA 65	38,400	45,800	19.3%
CAA 66	70,000	86,100	23.0%
CAA 67	42,500	54,300	27.8%
CAA 68	258,900	304,600	17.7%
CAA 69	255,800	407,000	59.1%
Sub-Total (RSA D-40)	1,825,800	2,324,800	27.3%
Sub-Total (South Orange County)	3,223,200	4,342,400	34.7%
Remainder of Orange County			
RSA A-36	1,354,000	1,417,000	4.7%
RSA B-41	1,154,800	1,450,800	25.6%
RSA E-44	1,281,600	2,213,000	72.7%
RSA F-39	2,136,400	2,355,400	10.3%
RSA G-42	2,864,400	3,011,100	5.1%
RSA H-37	2,097,900	2,289,600	9.1%
RSA I-38	1,993,400	2,166,700	8.7%
RSA J-35	1,053,800	1,279,000	21.4%
Orange County Total	17,159,500	20,525,000	19.6%
Abbreviations: ADT – Average Daily Traffic CAA – Community Analysis Area RSA – Regional Statistical Area			
¹ Includes a portion of Rancho Mission Viejo (RMV) Source: South (Orange) County Sub-Area Model (SCSAM)			

3.5.3 FUTURE I-5 TRAFFIC DEMAND

The amount of future traffic on I-5 at the Orange County/San Diego County border is important in the analysis of the SOCTIIP Alternatives, and the future traffic volume at this location has been the subject of considerable study over the years. Most recently, as part of the development of the OCTAM 3.1 traffic model, the OCTA prepared growth trends on I-5 using traffic counts and future growth projections in Orange County and San Diego County. In preparing future traffic forecasts on I-5 at the county border, the OCTA coordinated with other agencies including SCAG, SANDAG and Caltrans. This effort has resulted in I-5 traffic volume forecasts that represent the best estimate from the available data and which have gained concurrence from these other agencies. Based on the OCTA growth trend results, a traffic volume of 201,000 vehicles per day (vpd) is forecast on I-5 at the county border in year 2025 compared to an existing 2000/2001 traffic count of 126,000 vpd.

For the analysis of the SOCTIIP Alternatives, it is assumed that the future traffic volume on I-5 at the Orange County/San Diego County border would not vary substantially from alternative to alternative. The OCTA is in agreement with this approach based on their review of observed travel patterns from travel surveys conducted by Caltrans, SCAG and SANDAG and on their recognition of the unique geographical setting of I-5 in that, 1) Camp Pendleton serves as a natural 32-kilometer (20-mile) buffer between land use activities in Orange County and San Diego County, 2) there is an additional 24 kilometers (15 miles) from the Orange/San Diego County border to significant employment centers in Orange County, including land uses served by SOCTIIP Alternatives, and 3) there is no reasonable alternative to the I-5 (for example, diversion of traffic to I-15 or to the SR 91 Orange County gateway) that would be affected by the SOCTIIP Alternatives.

This assumption is further supported by the results of a set of OCTAM 3.1 regional traffic model runs specially conducted for the SOCTIIP by the OCTA in which travel demand patterns were produced for the following three extremely different SOCTIIP scenarios:

1. Year 2025 conditions for the FEC Alternative based on buildout of the circulation system and the 21,000 DU OCP-2000 land use plan for RMV.
2. Year 2025 conditions for the No Action Alternative based on the committed circulation system and the 21,000 DU OCP-2000 land use plan for RMV.
3. Year 2025 conditions for the No Action Alternative based on the committed circulation system and assuming no future land use development for RMV.

A comparison of the OCTAM 3.1 trip distribution patterns for these three 2025 scenarios indicates that only minor variations are produced in the SOCTIIP study area, specifically with respect to I-5 traffic at the Orange County/San Diego County border. Refer to the *SOCTIIP Traffic and Circulation Technical Report – Traffic Model Description and Validation* (Austin-Foust Associates, Inc., October 2002) for detailed summaries of the OCTAM 3.1 travel pattern data for these three scenarios. Because the OCTAM 3.1 regional model does not indicate that the distribution pattern for future I-5 traffic at the county border would change substantially based on

the various SOCTIIP Alternatives, it is reasonable to assume that the actual future traffic volume on I-5 at the county border would not vary substantially among the alternatives. Therefore, the year 2025 forecasted traffic volume mentioned earlier for I-5 at the Orange County/San Diego County border is applied in each of the SOCTIIP scenarios that were evaluated in this analysis.

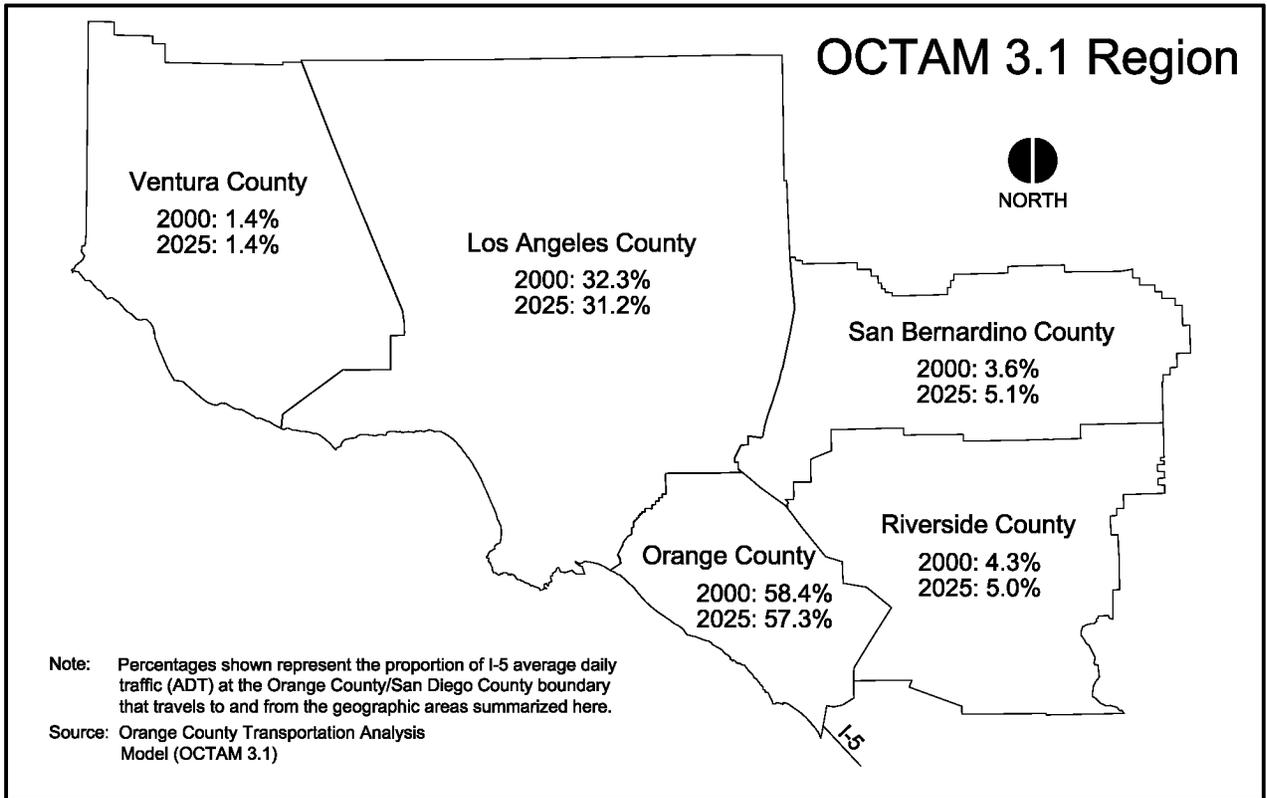
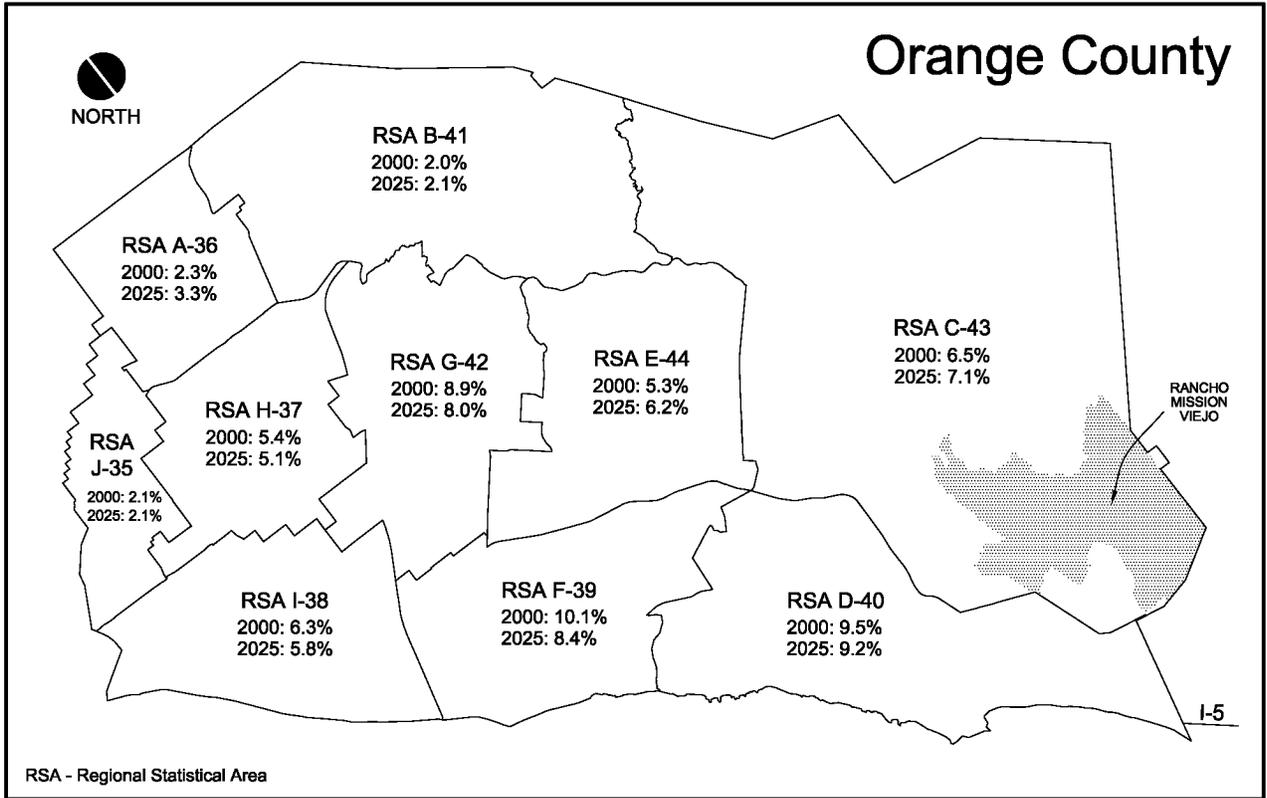
3.5.4 FUTURE I-5 TRAVEL PATTERNS

Similar to the approach applied for the 2025 traffic volume on I-5 at the Orange County/San Diego County border, a static set of 2025 trip distribution patterns from the OCTAM 3.1 regional traffic model was applied in the evaluation of the SOCTIIP Alternatives because the OCTAM 3.1 regional model runs conducted for the three 2025 scenarios described in the previous subsection produced only minor variations in the SOCTIIP study area trip distribution patterns. The only adjustments made to the trip distribution patterns that were applied were in response to trip generation changes associated with the various land use scenarios that are analyzed for the RMV area. Through consultation with the OCTA regarding the traffic modeling for this analysis, the OCTA indicated that in applying OCTAM 3.1 for most applications in Orange County, including analyzing facilities such as transportation corridors, it has been their experience that it is best to apply a static set of trip distribution patterns in the alternatives that are analyzed. The static distribution of trips essentially makes the evaluation of transportation alternatives and the comparison of alternatives easier to understand because trip patterns are the same for each scenario.

Figure 3-11 illustrates the OCTAM 3.1 travel patterns applied in this analysis for existing and 2025 traffic on I-5 at the Orange County/San Diego County border. The distribution patterns are summarized in terms of the percentage I-5 traffic that travels between the Orange County/San Diego County border and the RSAs within Orange County as well as the four other county areas (i.e., Riverside, San Bernardino, Los Angeles and Ventura) that are included in the OCTAM 3.1 model area. The 2025 travel patterns in Figure 3-11 are based on the 21,000 DU development plan for RMV that is assumed in OCP-2000.

This I-5 travel pattern information was further subdivided according to the CAAs that have been established in the parts of the two RSAs (C-43 and D-40) that encompass the SOCTIIP study area (refer to Figure 3-10 presented earlier for an illustration of the CAAs). Table 3-7 summarizes the I-5 travel patterns at the CAA level for existing and year 2025 conditions. For year 2025 conditions, travel patterns are summarized for the two RMV development scenarios (the 21,000 DU OCP-2000 plan and the 14,000 DU proposed RMV plan) that were applied in the 2025 evaluation of the SOCTIIP Alternatives, and for the two RMV development scenarios (the 6,250 DU existing General Plan and a scenario that assumes no future RMV development) that were treated as special analysis scenarios.

As indicated in Figure 3-11, approximately 58 percent of the existing and future I-5 traffic at the county border is projected to travel to and from Orange County and approximately 16 percent (around one quarter of the 58 percent) is destined to the SOCTIIP study area (i.e., southern Orange County). The 16 percent figure remains relatively constant in each of the four RMV development plans that were analyzed. The remaining 42 percent of I-5 traffic at the county



Existing and Future I-5 Travel Patterns

Table 3-7
EXISTING AND FUTURE I-5 TRAVEL PATTERNS

----- Percent of I-5 ADT Volume at the Orange County/San Diego County Border -----

Area	2000	2025 Case 1	2025 Case 2	2025 Case 3	2025 Case 4
South Orange County					
CAA 55	0.2%	0.1%	0.1%	0.1%	0.1%
CAA 56	1.1%	1.1%	1.1%	1.2%	1.2%
CAA 57	0.6%	0.5%	0.5%	0.4%	0.5%
CAA 58	3.0%	2.8%	2.8%	2.8%	2.8%
CAA 59 ¹	1.1%	1.5%	1.5%	1.3%	1.3%
CAA 60 ¹	0.3%	0.8%	0.8%	0.6%	0.5%
CAA 70	0.2%	0.3%	0.3%	0.3%	0.3%
Sub-Total (RSA C-43)	6.5%	7.1%	7.1%	6.7%	6.7%
CAA 61	1.6%	1.3%	1.3%	1.3%	1.3%
CAA 62	1.2%	1.1%	1.1%	1.2%	1.2%
CAA 63	1.6%	1.8%	1.8%	1.8%	1.8%
CAA 64	1.3%	1.4%	1.4%	1.4%	1.4%
CAA 65	0.2%	0.2%	0.2%	0.2%	0.2%
CAA 66	0.2%	0.3%	0.3%	0.3%	0.3%
CAA 67	0.4%	0.3%	0.3%	0.3%	0.3%
CAA 68	1.5%	1.4%	1.4%	1.4%	1.4%
CAA 69	1.5%	1.4%	1.4%	1.4%	1.4%
Sub-Total (RSA D-40)	9.5%	9.2%	9.2%	9.3%	9.3%
Sub-Total (South Orange County)	16.0%	16.3%	16.3%	16.0%	16.0%
Remainder of Orange County					
RSA A-36	2.3%	3.3%	3.3%	3.3%	3.3%

Table 3-7 (cont)
EXISTING AND FUTURE I-5 TRAVEL PATTERNS

Area	Percent of I-5 ADT Volume at the Orange County/San Diego County Border -----			
	2000	2025 Case 1	2025 Case 2	2025 Case 3
Remainder of Orange County (cont)				
RSA B-41	2.0%	2.1%	2.1%	2.1%
RSA E-44	5.3%	6.2%	6.2%	6.3%
RSA F-39	10.1%	8.4%	8.4%	8.5%
RSA G-42	8.9%	8.0%	8.0%	8.0%
RSA H-37	5.4%	5.1%	5.1%	5.1%
RSA I-38	6.3%	5.8%	5.8%	5.8%
RSA J-35	2.1%	2.1%	2.1%	2.1%
Orange County Total	58.4%	57.3%	57.3%	57.2%
Riverside County	4.3%	5.0%	5.0%	5.0%
San Bernardino County	3.6%	5.1%	5.1%	5.1%
Los Angeles County	32.3%	31.2%	31.2%	31.3%
Ventura County	1.4%	1.4%	1.4%	1.4%
Total	100.0%	100.0%	100.0%	100.0%

2025 Case 1: Assumes the 21,000 DU OCP-2000 plan for the Rancho Mission Viejo (RMV) area.

2025 Case 2: Assumes the 14,000 DU proposed development plan for the RMV area.

2025 Case 3: Assumes the 6,250 DU existing General Plan for the RMV area.

2025 Case 4: Assumes no future development in the RMV area.

Abbreviations: ADT – Average Daily Traffic
CAA – Community Analysis Area
RSA – Regional Statistical Area

¹ Includes a portion of the RMV area.

border is projected to travel beyond Orange County (i.e., to and from the Counties of Los Angeles, Riverside, San Bernardino and Ventura).

Also, as Table 3-7 indicates, the various RMV development scenarios produce only minor variations in the year 2025 travel patterns between I-5 traffic at the Orange County/San Diego County border and the RMV area. Specifically, 1.1 percent of the future traffic at the county border is forecast to travel to and from CAAs 59 and 60 (the two CAAs in which RMV is located) under year 2025 conditions based on either the 21,000 DU OCP-2000 plan or the 14,000 DU proposed development plan. This relationship decreases slightly to 0.9 percent under 2025 conditions based on the 6,250 DU existing General Plan for the RMV area and to 0.8 percent under 2025 conditions with no future development in the RMV area.

SECTION 4.0 LONG-RANGE ANALYSIS

4.1 INTRODUCTION

In this Section, the SOCTIIP Alternatives are analyzed and evaluated based on long-range (year 2025) traffic conditions. Year 2025 traffic forecasts are presented for the set of basic analysis scenarios that was defined earlier in Section 2.2 (Analysis Scenarios). Year 2025 forecasts for the special analysis scenarios defined in Section 2.2 are presented in Section 7.0 (Special Issues). For each scenario, year 2025 peak hour operating conditions are summarized for the following components of the study area circulation system: arterial intersections, freeway/tollway mainline segments and freeway/tollway mainline ramps. At the end of this Section, statistics are presented for various measures of effectiveness that are applied in this analysis to compare how the transportation system in general and the vehicle traffic using the transportation system respond to the various SOCTIIP Alternatives.

4.2 LONG-RANGE TRAFFIC CONDITIONS

In this Section, the long-range (year 2025) traffic conditions that are forecast under the various SOCTIIP Alternatives are summarized. Long-range ADT traffic forecasts for each of the analysis scenarios are summarized first followed by long-range peak hour traffic conditions. A comparison of year 2025 traffic conditions under the SOCTIIP Alternatives with the existing traffic conditions summarized earlier in Section 3.2 (Existing Traffic Conditions) provides an impact assessment of the SOCTIIP Alternatives against the existing baseline conditions.

A comparison of year 2025 peak hour traffic conditions under each of the Build Alternatives against corresponding year 2025 conditions under the No Action Alternative provides an impact assessment against future planned baseline conditions. Such a comparison was applied in this analysis to identify the beneficial effects and the adverse impacts of the Build Alternatives. Mitigation measures that address the adverse impacts of each of the Build Alternatives are presented in Section 5.0 (Mitigation Measures).

4.2.1 DEFINITION OF BENEFICIAL EFFECTS AND ADVERSE IMPACTS

For the comparison of year 2025 conditions under the SOCTIIP Build Alternatives against year 2025 conditions under the No Action Alternative, a given Build Alternative was paired with a No Action Alternative that features the same set of future land use assumptions. For example, a Build Alternative scenario assuming the 14,000 DU proposed Rancho Mission Viejo (RMV) development plan was compared with a No Action Alternative scenario with that same assumption for RMV. Therefore, the comparison shows the effect of the added roadway facility or facilities in that Build Alternative and assumes the growth implied by that land use scenario.

When the comparison between a Build Alternative scenario and a No Action Alternative scenario was made, impacts of the Build Alternative were identified using the impact criteria that are described in Section 1.5.1 (Impact Criteria). Those impacts are referred to as “adverse

impacts” or simply “impacts.” At the same time, the benefits of the Build Alternative were identified by summarizing those locations where deficiencies in the No Action Alternative are eliminated by the circulation facilities to be constructed in the Build Alternative. These can be considered as “positive impacts” of the Build Alternative, but to avoid confusion in the use of the term impact, they are referred to as the “beneficial effects” of the project. Therefore, for each Build Alternative that is analyzed, there is an accounting of both the beneficial effects and the adverse impacts of that Alternative, compared to the No Action Alternative.

Definition of Beneficial Effects

Peak hour deficiencies that are forecast under the No Action Alternative would presumably need to be addressed through the construction of additional improvements if the future land uses projected in the study area were to occur. Such improvements could include widening of arterial roads, improvement of arterial intersections, freeway ramp modifications, and freeway mainline enhancements. In other words, there would be an overall program of improvements to satisfy future traffic demands based on anticipated future land uses under the No Action Alternative.

When a Build Alternative eliminates the need for improvements that would be required to address a given deficiency under the No Action Alternative, that Build Alternative is considered to have a beneficial effect. In this analysis, a beneficial effect is considered to occur at a given circulation facility if the following two conditions are satisfied:

- The facility is forecast to operate at a deficient LOS in 2025 under the No Action Alternative.
- The facility is forecast to operate at an acceptable (non-deficient) LOS in 2025 under the given Build Alternative.

Definition of Adverse Impacts

The adverse traffic impacts of the Build Alternatives were identified by comparing year 2025 peak hour traffic conditions based on the No Action Alternative with year 2025 peak hour traffic conditions under each of the Build Alternatives. A facility on the circulation system is adversely impacted if the following two conditions are satisfied:

- The facility is forecast to operate at a deficient LOS in 2025 under the Build Alternative.
- Compared to the No Action Alternative, the contribution to the deficient LOS by the Build Alternative exceeds the adopted impact thresholds. Refer to Section 1.5.1 (Impact Criteria) for the impact thresholds that have been adopted by the jurisdictions in the study area.

The adverse impacts of the Build Alternatives are separated into the two following categories:

- Direct adverse impacts.
- Indirect adverse impacts.

The distinction is important because it affects the manner in which mitigation measures that address the adverse impacts of the Build Alternatives are established. The following discusses these two types of adverse impacts.

Direct Adverse Impacts – These are adverse impacts that have some form of identifiable connection or “nexus” with the circulation improvements featured in a given Build Alternative. Typically this type of impact occurs when the traffic causing the adverse impact uses at least part of the new circulation facilities constructed in that Build Alternative. The Build Alternatives in which the FTC-S toll road terminates at an arterial roadway such as Ortega Highway or Avenida Pico are examples. Vehicle traffic on the FTC-S will use local arterials in the vicinity of the FTC-S termination point and thereby add traffic on those local arterials. As a result, there is a nexus between the traffic on the new facility and the traffic causing an impact on those local arterials.

Indirect Adverse Impacts – These adverse impacts occur as a result of a change in travel patterns due to a new facility that is constructed in a given Build Alternative. While the impacts are generally small in magnitude, they are nevertheless adverse impacts under the specified performance criteria. The most common example occurs under the Build Alternatives with the FTC-S toll road which divert traffic from I-5, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp intersections serving I-5. Various I-5 ramps and ramp intersections are deficient under the No Action Alternative due to future land use in the study area and regional traffic growth, and the Build Alternatives may, in certain cases, worsen those deficiencies because of this additional traffic. Because none of this added traffic has origins or destinations in the vicinity of the circulation facilities that are constructed in the given Build Alternative, the impacts of this added traffic are considered to be indirect. There is no nexus between this increased traffic and the facility being built in the given Build Alternative, but simply a shift in travel routing due to I-5 having additional capacity compared to the No Action Alternative.

4.2.2 ADT TRAFFIC FORECASTS

Illustrations showing year 2025 ADT volumes on the study area circulation system are provided in Appendix C for each of the analysis scenarios. Table 4-1 summarizes existing ADT volumes and year 2025 ADT volumes that are forecast in each of the analysis scenarios for various segments of I-5 and the FTC-S in the study area. Under 2025 conditions based on the No Action Alternative, traffic volumes on the I-5 segments listed in Table 4-1 are forecast to increase by 56,000 to 115,000 ADT (depending on the segment and scenario) compared to existing traffic conditions. This represents increases over the existing ADT volumes on I-5 ranging from 16 to 49 percent.

The changes in ADT on I-5 under 2025 conditions based on the Build Alternative scenarios compared to the No Action Alternative scenarios are summarized as follows:

Table 4-1

SUMMARY OF EXISTING AND FUTURE ADT VOLUMES ON I-5 AND FTC-S

Alternatives and Scenarios (a)	I-5 south of I-405	I-5 north of Oso Pkwy	I-5 north of Ortega Hwy	I-5 north of Avd Pico	FTC-S south of Oso Pkwy	FTC-S south of Ortega Hwy	FTC-S north of I-5
EXISTING CONDITIONS	357,000	285,000	236,000	206,000	--	--	--
NO ACTION ALTERNATIVE							
Year 2025 No Action Alternative							
Scenario 1	413,000	354,000	338,000	288,000	--	--	--
Scenario 2	418,000	361,000	351,000	292,000	--	--	--
Scenario 3	413,000	353,000	333,000	290,000	--	--	--
Scenario 4	419,000	361,000	340,000	291,000	--	--	--
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5							
Year 2025 FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)							
Scenario 1	404,000	341,000	316,000	261,000	57,000	43,000	26,000
Scenario 3	406,000	344,000	317,000	267,000	52,000	36,000	24,000
Scenario 4	410,000	350,000	317,000	265,000	49,000	39,000	25,000
Year 2025 FEC-TV Alternatives (Initial and Ultimate)							
Scenario 1	405,000	343,000	318,000	258,000	55,000	42,000	42,000
Scenario 3	407,000	345,000	319,000	265,000	50,000	35,000	40,000
Scenario 4	411,000	351,000	319,000	264,000	49,000	39,000	41,000
Year 2025 CC Alternatives (Initial and Ultimate)							
Scenario 1	405,000	342,000	314,000	252,000	52,000	49,000	47,000
Scenario 3	406,000	344,000	315,000	259,000	49,000	42,000	45,000
Scenario 4	410,000	349,000	316,000	258,000	49,000	48,000	46,000

Table 4-1 (cont)
SUMMARY OF EXISTING AND FUTURE ADT VOLUMES ON I-5 AND FTC-S

Alternatives and Scenarios (a)	I-5 south of I-405	I-5 north of Oso Pkwy	I-5 north of Ortega Hwy	I-5 north of Avd Pico	FTC-S south of Oso Pkwy	FTC-S south of Ortega Hwy	FTC-S north of I-5
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5 (cont)							
Year 2025 A7C and A7C-7SV Alternatives (Initial and Ultimate)							
Scenario 1	405,000	342,000	314,000	255,000	56,000	48,000	46,000
Scenario 3	406,000	344,000	315,000	262,000	52,000	41,000	43,000
Year 2025 A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)							
Scenario 1	404,000	342,000	313,000	258,000	58,000	49,000	29,000
Scenario 3	405,000	343,000	314,000	264,000	53,000	40,000	27,000
Scenario 4	410,000	349,000	317,000	264,000	41,000	39,000	27,000
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO CRISTIANITOS ROAD							
Year 2025 FEC-CV Alternatives (Initial and Ultimate)							
Scenario 1	406,000	345,000	322,000	269,000	51,000	36,000	--
Scenario 3	408,000	346,000	324,000	275,000	46,000	28,000	--
Year 2025 A7C-FECV-C Alternatives (Initial and Ultimate)							
Scenario 1	406,000	345,000	321,000	268,000	49,000	39,000	--
Scenario 3	407,000	346,000	322,000	274,000	45,000	30,000	--
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO AVENIDA PICO OR AVENIDA LA PATA							
Year 2025 FEC-APV Alternatives (Initial and Ultimate)							
Scenario 1	408,000	347,000	326,000	277,000	49,000	32,000	--
Scenario 3	409,000	348,000	327,000	282,000	44,000	24,000	--

Table 4-1 (cont)
SUMMARY OF EXISTING AND FUTURE ADT VOLUMES ON I-5 AND FTC-S

Alternatives and Scenarios (a)	I-5 south of I-405	I-5 north of Oso Pkwy	I-5 north of Ortega Hwy	I-5 north of Avd Pico	FTC-S south of Oso Pkwy	FTC-S south of Ortega Hwy	FTC-S north of I-5
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO AVENIDA PICO OR AVENIDA LA PATA (cont)							
Year 2025 CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)							
Scenario 1	408,000	347,000	324,000	281,000	41,000	35,000	--
Scenario 3	409,000	348,000	325,000	285,000	38,000	26,000	--
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO ORTEGA HIGHWAY							
Year 2025 FEC-OHV Alternatives (Initial and Ultimate)							
Scenario 1	411,000	352,000	338,000	288,000	36,000	--	--
Scenario 3	411,000	351,000	333,000	290,000	35,000	--	--
Year 2025 CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)							
Scenario 1	412,000	352,000	338,000	288,000	23,000	--	--
Scenario 3	411,000	351,000	332,000	290,000	27,000	--	--
BUILD ALTERNATIVES WITHOUT THE FTC-S TOLL ROAD							
Year 2025 AIO Alternative							
Scenario 3	412,000	352,000	327,000	287,000	--	--	--
Scenario 4	417,000	358,000	332,000	287,000	--	--	--
Year 2025 AIP Alternative							
Scenario 3	417,000	358,000	331,000	287,000	--	--	--
Scenario 4	422,000	366,000	338,000	287,000	--	--	--

Table 4-1 (cont)
SUMMARY OF EXISTING AND FUTURE ADT VOLUMES ON I-5 AND FTC-S

Alternatives and Scenarios (a)	I-5 south of I-405	I-5 north of Oso Pkwy	I-5 north of Ortega Hwy	I-5 north of Avd Pico	FTC-S south of Oso Pkwy	FTC-S south of Ortega Hwy	FTC-S north of I-5
BUILD ALTERNATIVES WITHOUT THE FTC-S TOLL ROAD (cont)							
Year 2025 I-5 Alternative							
Scenario 1	444,000	390,000	349,000	298,000	--	--	--
Scenario 3	444,000	390,000	345,000	294,000	--	--	--
Scenario 4	451,000	399,000	354,000	295,000	--	--	--

(a) The assumptions for each scenario are as follows:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Note: In the Build Alternatives that include the FTC-S toll road, the ADT volumes on the FTC-S generally exceed the ADT reductions on I-5 when compared against the No Action Alternative scenarios. This is because in addition to diverting traffic from I-5, the FTC-S also diverts traffic from parallel arterial roads that are not listed in this summary table.

- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 reduce the ADT on I-5 compared to the No Action Alternative scenarios by 24,000 to 36,000 in the vicinity of Avenida Pico, by 14,000 to 25,000 in the vicinity of Ortega Highway, by 8,000 to 13,000 in the vicinity of Oso Parkway, and by 7,000 to 9,000 south of the I-405 confluence.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road reduce the ADT on I-5 compared to the No Action Alternative scenarios by 15,000 to 20,000 in the vicinity of Avenida Pico, by 9,000 to 17,000 in the vicinity of Ortega Highway, by 7,000 to 9,000 in the vicinity of Oso Parkway, and by 5,000 to 7,000 south of the I-405 confluence.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata reduce the ADT on I-5 compared to the No Action Alternative scenarios by 5,000 to 11,000 in the vicinity of Avenida Pico, by 8,000 to 14,000 in the vicinity of Ortega Highway, by 5,000 to 7,000 in the vicinity of Oso Parkway, and by 4,000 to 5,000 south of the I-405 confluence.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway reduce the ADT on I-5 compared to the No Action Alternative scenarios by 1,000 or less in the southern part of the study area and by 1,000 to 2,000 in the northern part of the study area.
- The AIO Alternative reduces the ADT on I-5 compared to the No Action Alternative scenarios by 3,000 to 8,000 in the southern part of the study area and by 1,000 to 3,000 in the northern part of the study area.
- The AIP Alternative reduces the ADT on I-5 compared to the No Action Alternative scenarios by 2,000 to 4,000 in the southern part of the study area and increases the ADT on I-5 by 3,000 to 5,000 in the northern part of the study area.
- The I-5 Alternative increases the ADT on I-5 compared to the No Action Alternative scenarios by 4,000 to 14,000 in the southern part of the study area and by 31,000 to 38,000 in the northern part of the study area.

For the Build Alternatives that include the FTC-S toll road, 2025 ADT volumes on the FTC-S are summarized as follows:

- In the Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5, the ADT on the FTC-S ranges from 24,000 to 58,000.
- In the Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road, Avenida Pico or Avenida La Pata, the ADT on the FTC-S ranges from 24,000 to 51,000.
- In the Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway, the ADT on the FTC-S ranges from 23,000 to 36,000.

In the Build Alternatives that include the FTC-S toll road, the ADT volumes on the FTC-S generally exceed the ADT reductions on I-5 when compared against the No Action Alternative scenarios. This is because in addition to diverting traffic from I-5, the FTC-S alternatives also divert traffic from arterial roads in the study area that are parallel to the FTC-S.

4.2.3 PEAK HOUR TRAFFIC CONDITIONS

While ADT volumes such as those summarized in Section 4.2.2 provide a useful measure to show general levels of traffic on circulation facilities in the study area, ADT volumes were not applied in this analysis as the basis for determining operating conditions on the study area circulation system. The reason is that traffic congestion is largely a peak hour or peak period occurrence and ADT does not reflect peak conditions very effectively. As a result, this evaluation focuses on the AM and PM peaks when such congestion typically occurs. The components of the study area circulation system for which long-range (year 2025) peak hour traffic conditions were analyzed are discussed below.

Peak Hour Intersection Levels of Service

Long-range (year 2025) AM and PM peak hour ICU values were calculated for each analysis scenario using forecasted peak hour intersection traffic volumes in combination with the future geometric lane configuration (committed or MPAH/RTP buildout, depending on the scenario) of each intersection location. Summaries of the future lane geometric configurations and AM and PM peak hour ICU values for each analysis scenario are provided in Appendix F, and actual turn volumes and ICU calculation worksheets for each analysis scenario are included in Appendix G.

Peak Hour Freeway/Tollway Mainline Levels of Service

Long-range (year 2025) peak hour operating conditions for the freeway/tollway system were determined by applying the peak hour freeway and tollway mainline traffic volumes forecasted for each analysis scenario together with the capacities described in Section 1.5 (Performance Criteria and Standards) for mixed-flow (general purpose) lanes, HOV lanes, and auxiliary lanes. For each analysis scenario, the resulting year 2025 AM and PM peak hour V/C ratios and corresponding levels of service (LOSs) for each freeway/tollway segment in the study area are summarized in Appendix D.

Peak Hour Freeway/Tollway Ramp Levels of Service

Long-range (year 2025) AM and PM peak hour traffic volumes for the freeway and tollway ramps in the study area were derived from intersection traffic volumes forecast at each location where freeway/tollway ramps intersect the arterial system. The year 2025 peak hour ramp volumes forecast in each analysis scenario were applied together with the ramp capacities described in Section 1.5 (Performance Criteria and Standards) to calculate future peak hour ramp V/C ratios. The resulting year 2025 AM and PM peak hour freeway/tollway ramp V/C ratios and corresponding LOSs forecast under each analysis scenario are summarized in Appendix E.

4.2.3.1 No Action Alternative

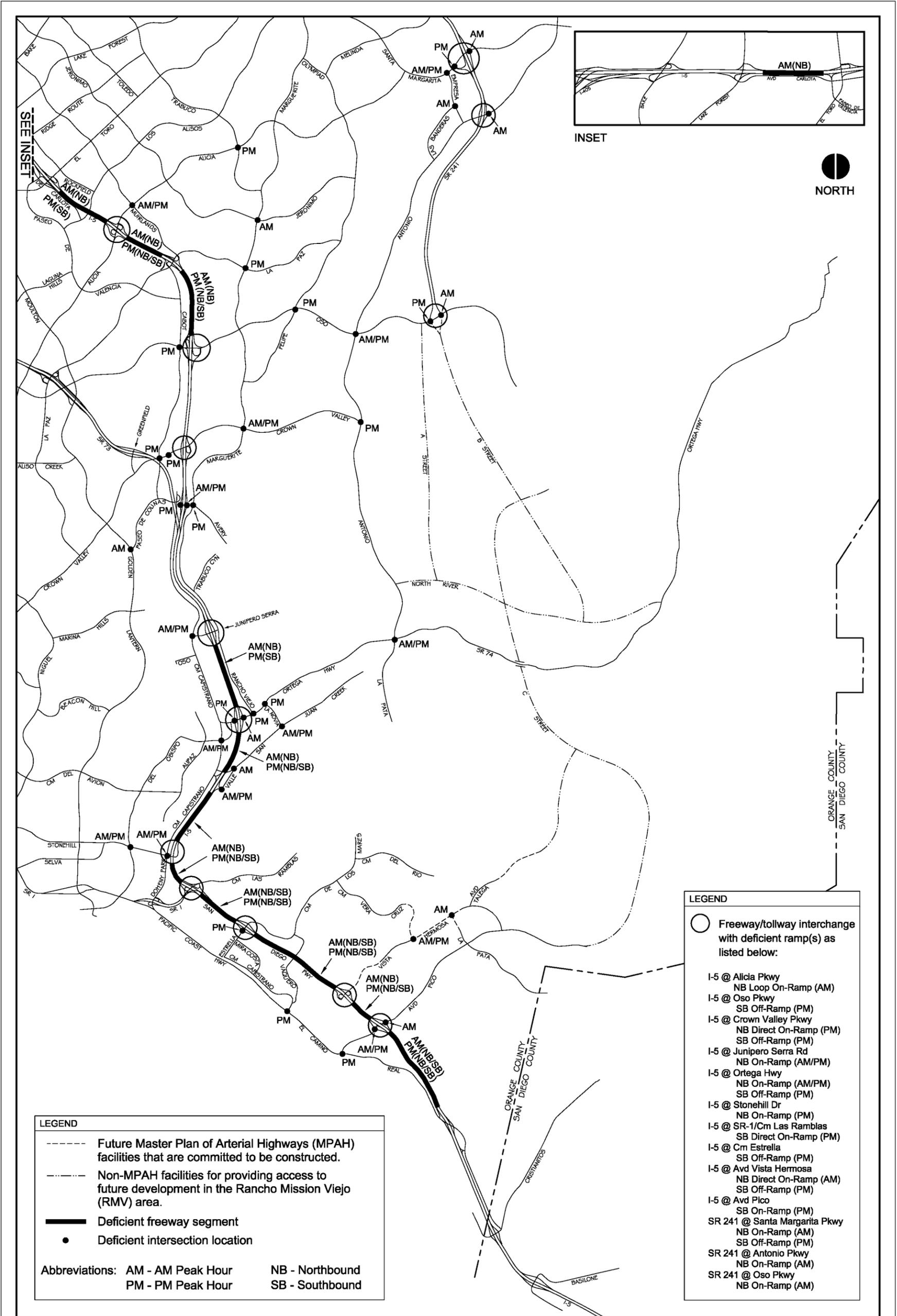
As discussed in Section 2.0 (Description of the Alternatives), the set of basic analysis scenarios studied in the SOCTIIP traffic and circulation analysis includes four scenarios based on the No Action Alternative. Two additional special analysis scenarios that are based on the No Action Alternative are evaluated in Section 7.0 (Special Issues). The four No Action Alternative scenarios are based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

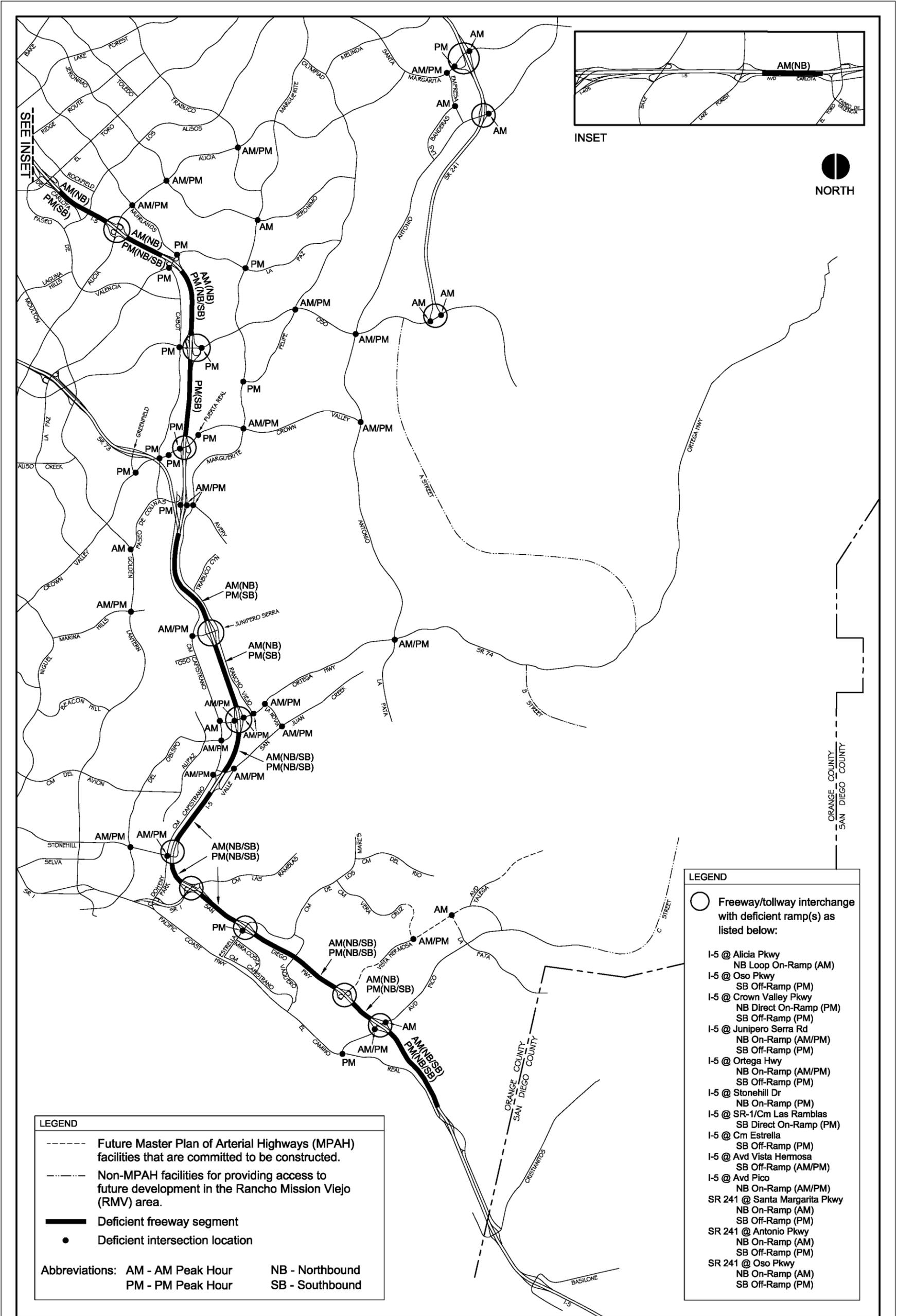
Figures 4-1 through 4-4 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in each of these four No Action Alternative analysis scenarios. Table 4-2 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each of these scenarios.

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/ Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	41	12	17
Committed circulation system with OCP-2000 for RMV (Scenario 2)	50	14	19
Buildout circulation system with proposed RMV plan (Scenario 3)	27	11	14
Buildout circulation system with OCP-2000 for RMV (Scenario 4)	27	11	16

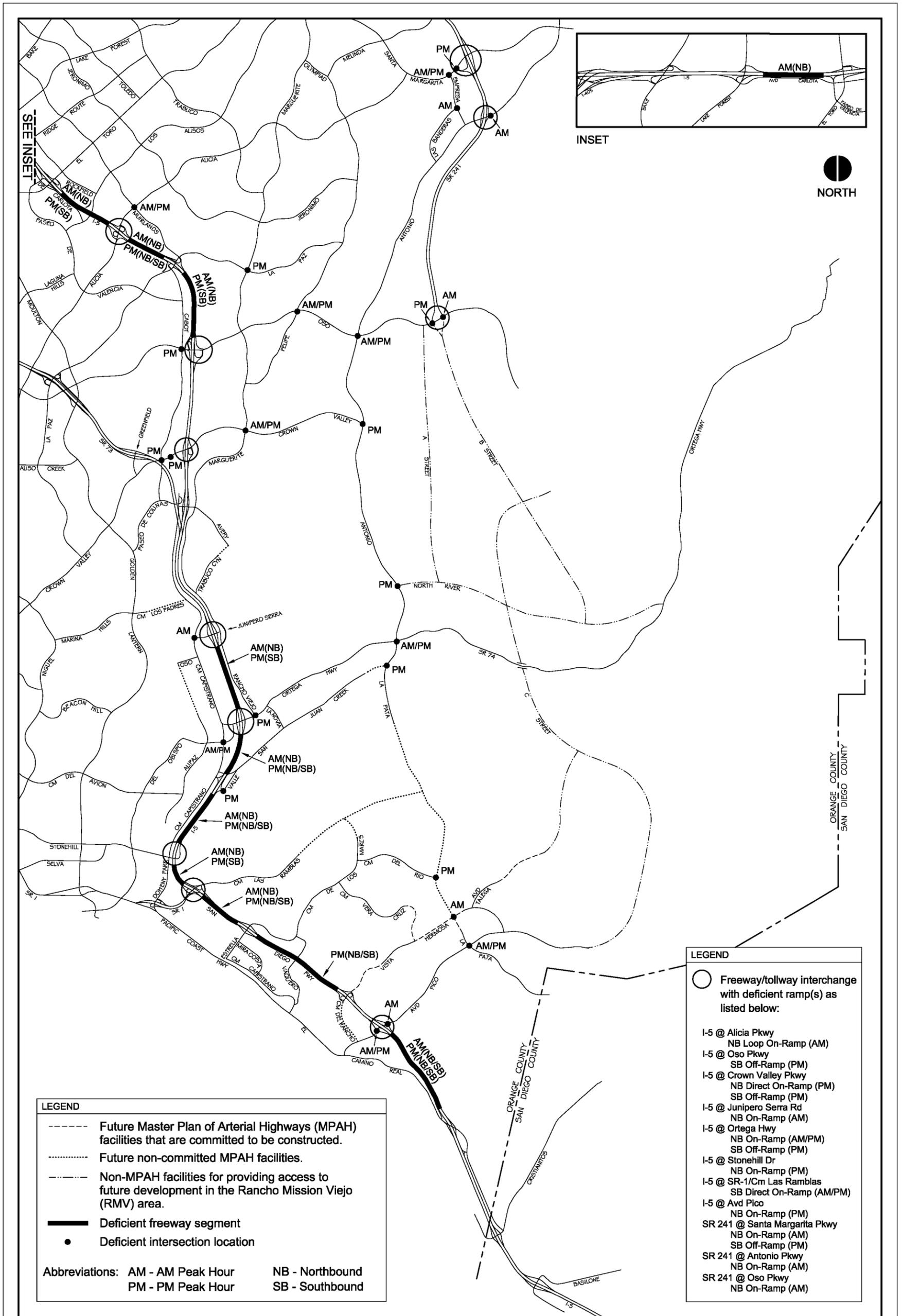
Numerous facilities are forecast to operate deficiently in each of the No Action Alternative scenarios, and a greater number of deficiencies are forecast under scenarios based on the committed circulation system rather than the MPAH/RTP buildout circulation system. This is because the MPAH/RTP buildout circulation system provides more facilities and greater system capacity than the committed system. Also, a somewhat greater number of deficiencies are



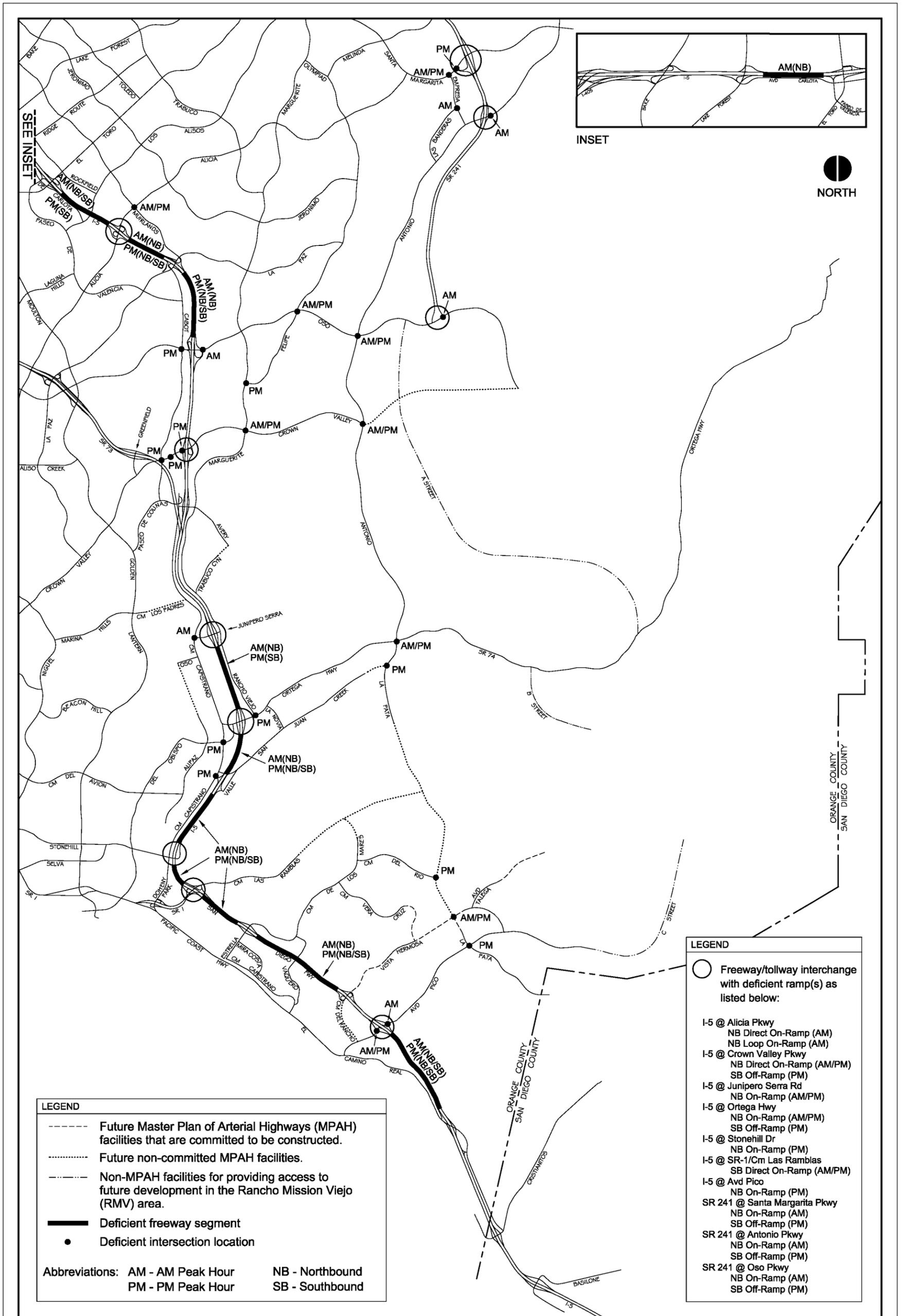
2025 Peak Hour Deficiencies - No Action Alternative
 (Committed Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - No Action Alternative
 (Committed Circulation System with OCP-2000 for RMV)



2025 Peak Hour Deficiencies - No Action Alternative
 (Buildout Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - No Action Alternative
 (Buildout Circulation System with OCP-2000 for RMV)

forecast under scenarios that assume the 21,000 DU OCP-2000 land use plan for the RMV area compared to scenarios based on the 14,000 DU proposed RMV development plan.

4.2.3.2 FEC-Initial and Ultimate Alternatives

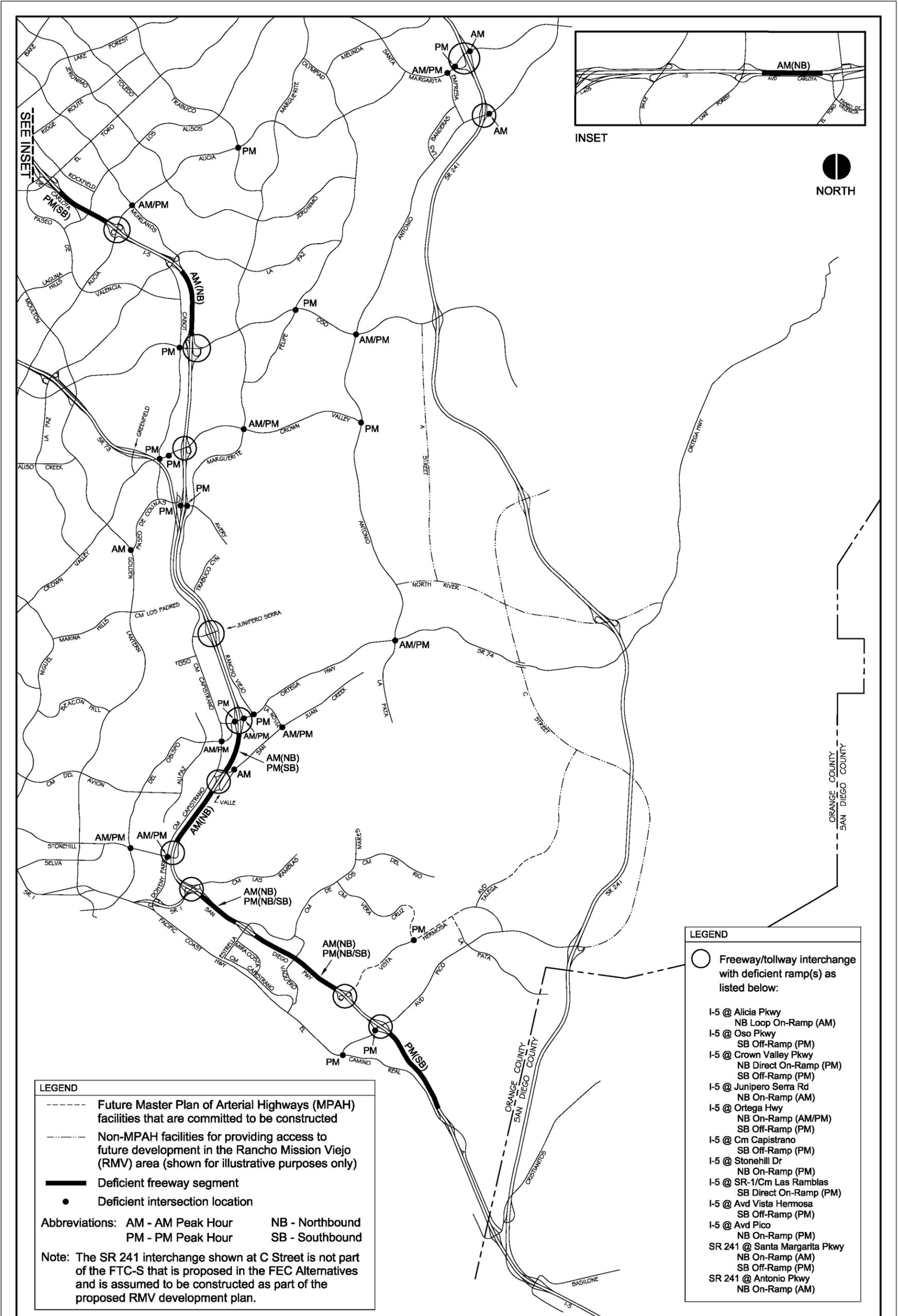
The Far East Corridor – Complete (FEC) – Initial and Ultimate Alternatives were analyzed under three scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

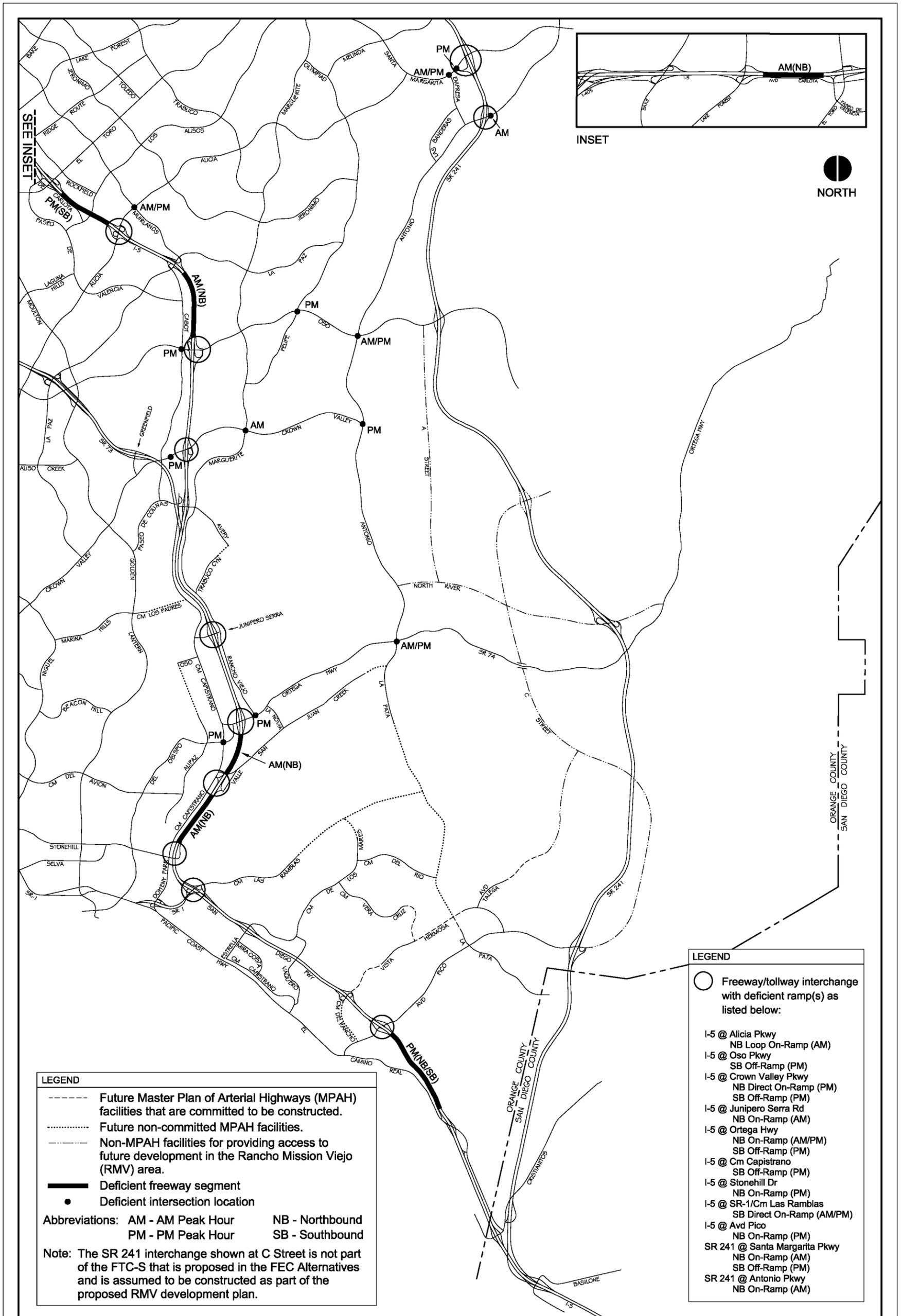
Figures 4-5 through 4-7 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in each of the three FEC Alternatives analysis scenarios. Table 4-3 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the FEC Alternatives.

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/ Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	28 (13 less than the No Action Alt.)	8 (4 less than the No Action Alt.)	15 (2 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	13 (14 less than the No Action Alt.)	6 (5 less than the No Action Alt.)	14 (same as the No Action Alt.)
Buildout circulation system with OCP-2000 for RMV (Scenario 4)	19 (8 less than the No Action Alt.)	6 (5 less than the No Action Alt.)	14 (2 less than the No Action Alt.)

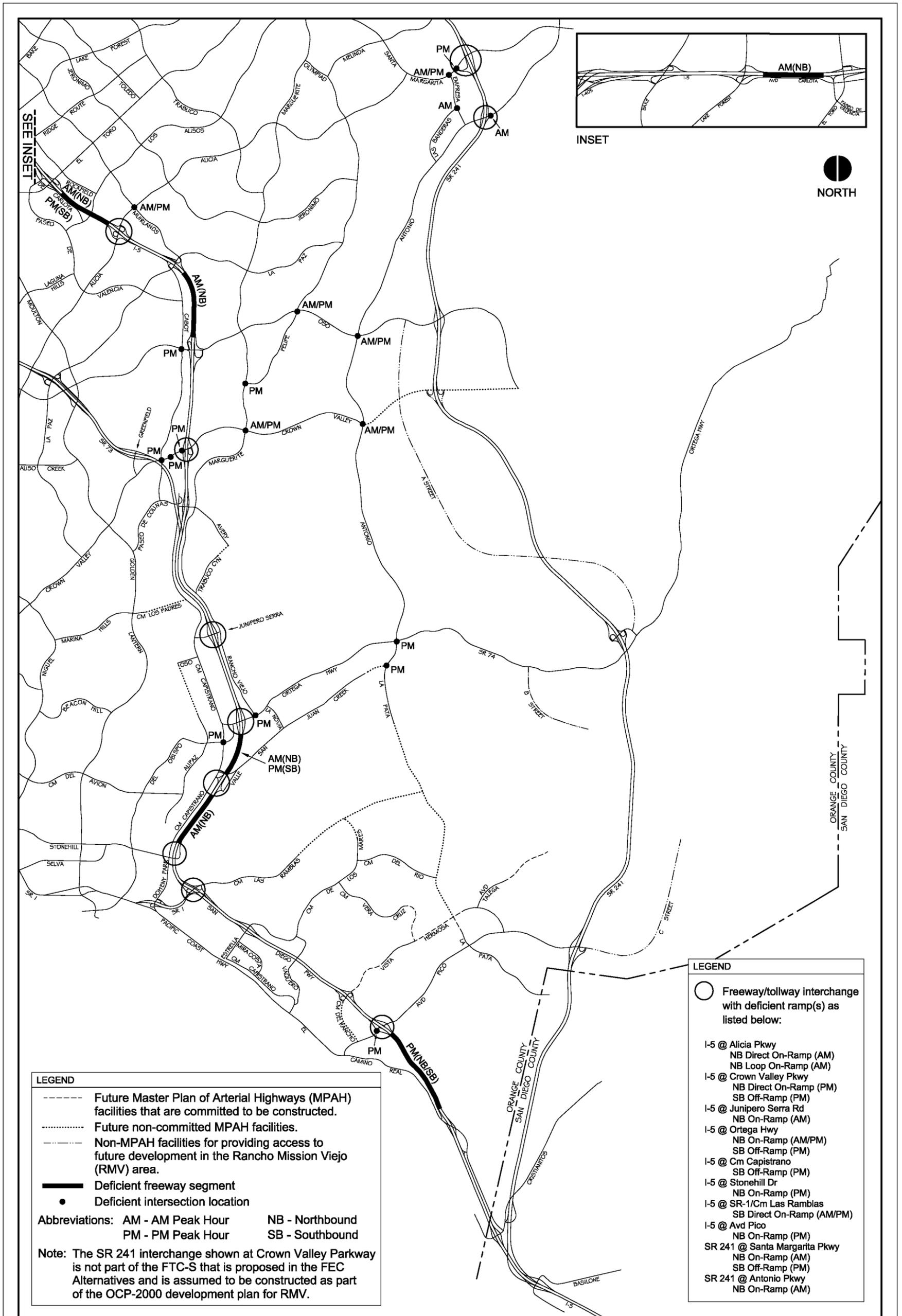
The FEC Alternatives result in substantially fewer arterial intersection and I-5 mainline deficiencies compared to the No Action Alternative. The number of deficient freeway/tollway ramps is similar for the FEC Alternatives and the No Action Alternative because of indirect adverse impacts that occur at various I-5 ramps under the FEC Alternatives. The indirect impacts occur because the FTC-S diverts traffic from I-5 under the FEC Alternatives, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp



**2025 Peak Hour Deficiencies - FEC-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)**



2025 Peak Hour Deficiencies - FEC-Initial and Ultimate Alternatives
 (Buildout Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - FEC-Initial and Ultimate Alternatives
 (Buildout Circulation System with OCP-2000 for RMV)

intersections serving I-5. It is this additional traffic that causes indirect adverse impacts to occur under the FEC Alternatives.

Table 4-4 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the FEC Alternatives scenarios and the No Action Alternative scenarios. The FEC Alternatives are forecast to have a beneficial effect at a substantial number of locations, including I-5 mainline segments, arterial intersections and freeway/tollway ramps. No direct adverse impacts are forecast to occur under the FEC Alternatives. However, indirect adverse impacts are forecast to occur at five I-5 ramps and one I-5 ramp intersection.

Mitigation measures that address the indirect adverse impacts of the FEC Alternatives are presented in Section 5.0 (Mitigation Measures). At the locations where indirect adverse impacts occur, there is no nexus between the increase in traffic that is forecast under the FEC Alternatives scenarios compared to the No Action Alternative scenarios and the roadway facilities that are constructed in the FEC Alternatives. Therefore, there is no responsibility for the FEC Alternatives to participate in the implementation of needed improvements at the locations where indirect adverse impacts occur.

4.2.3.3 FEC-M-Initial and Ultimate Alternatives

The Far East Corridor – Modified (FEC-M) – Initial and Ultimate Alternatives provide essentially the same connections to the local circulation system as the FEC Alternatives. Therefore, long-range traffic conditions based on the FEC-M Alternatives were not specifically analyzed because the future traffic conditions and the beneficial effects and adverse impacts on the circulation system under the FEC-M Alternatives are essentially the same as the FEC Alternatives results discussed earlier in Section 4.2.3.2.

4.2.3.4 FEC-W-Initial and Ultimate Alternatives

The Far East Corridor – West (FEC-W) – Initial and Ultimate Alternatives provide essentially the same connections to the local circulation system as the FEC Alternatives. Therefore, long-range traffic conditions based on the FEC-W Alternatives were not specifically analyzed because the future traffic conditions and the beneficial effects and adverse impacts on the circulation system under the FEC-W Alternatives are essentially the same as the FEC Alternatives results discussed earlier in Section 4.2.3.2.

4.2.3.5 FEC-TV-Initial and Ultimate Alternatives

The Far East Corridor – Talega Variation (FEC-TV) – Initial and Ultimate Alternatives were analyzed under three scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Table 4-4

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
FEC-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Antonio Pkwy & North River Rd	County	PM	3
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Avd La Pata & Avd Pico	San Clemente	AM/PM	3,4
Avd La Pata & Avd Vista Hermosa	San Clemente	AM/PM	1,3,4
Avd La Pata & Cm del Rio	San Clemente	PM	3,4
Cabot Rd & Crown Valley Pkwy	Laguna Niguel	PM	3
Cm Capistrano & I-5 southbound ramps	Caltrans/San Juan Capistrano	PM	4
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM/PM	1,3,4
I-5 northbound ramps & Avd Pico	Caltrans/San Clemente	AM	1,3,4
I-5 southbound ramps & Avd Pico	Caltrans/San Clemente	AM/PM	3
I-5 southbound ramps & Cm Estrella	Caltrans/San Clemente/ Dana Point	PM	1
I-5 northbound ramps & Oso Pkwy	Caltrans/Mission Viejo	AM	4
La Novia Ave & Ortega Hwy	San Juan Capistrano	PM	1
La Pata Ave & San Juan Creek Rd	County	PM	3
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	1
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1,3
Pacific Coast Hwy & Cm Capistrano	San Clemente/Dana Point	PM	1
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3,4
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	1,3,4
I-5 (Avd Vista Hermosa to Avd Pico)	Caltrans/San Clemente	AM/PM	1
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	AM/PM	3,4
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
I-5 (SR 1/Cm Las Ramblas to Cm Estrella)	Caltrans/Dana Point	AM/PM	3,4
I-5 (Stonehill Dr to SR 1/Cm Las Ramblas)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
Freeway/Tollway Ramps			
I-5 at Cm Estrella (southbound off-ramp)	Caltrans/San Clemente/ Dana Point	PM	1
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	Caltrans/San Clemente	AM	1
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	1

Table 4-4 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 FEC-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b) (cont)			
Freeway/Tollway Ramps (cont)			
SR 241 at Antonio Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	4
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3,4
SR 241 at Oso Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	4
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
None	--	--	--
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
None	--	--	--
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Ortega Hwy	San Juan Capistrano	AM/PM	1
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	PM	1,3,4
I-5 at Cm Capistrano (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1,3,4
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 at Ortega Hwy (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3,4

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

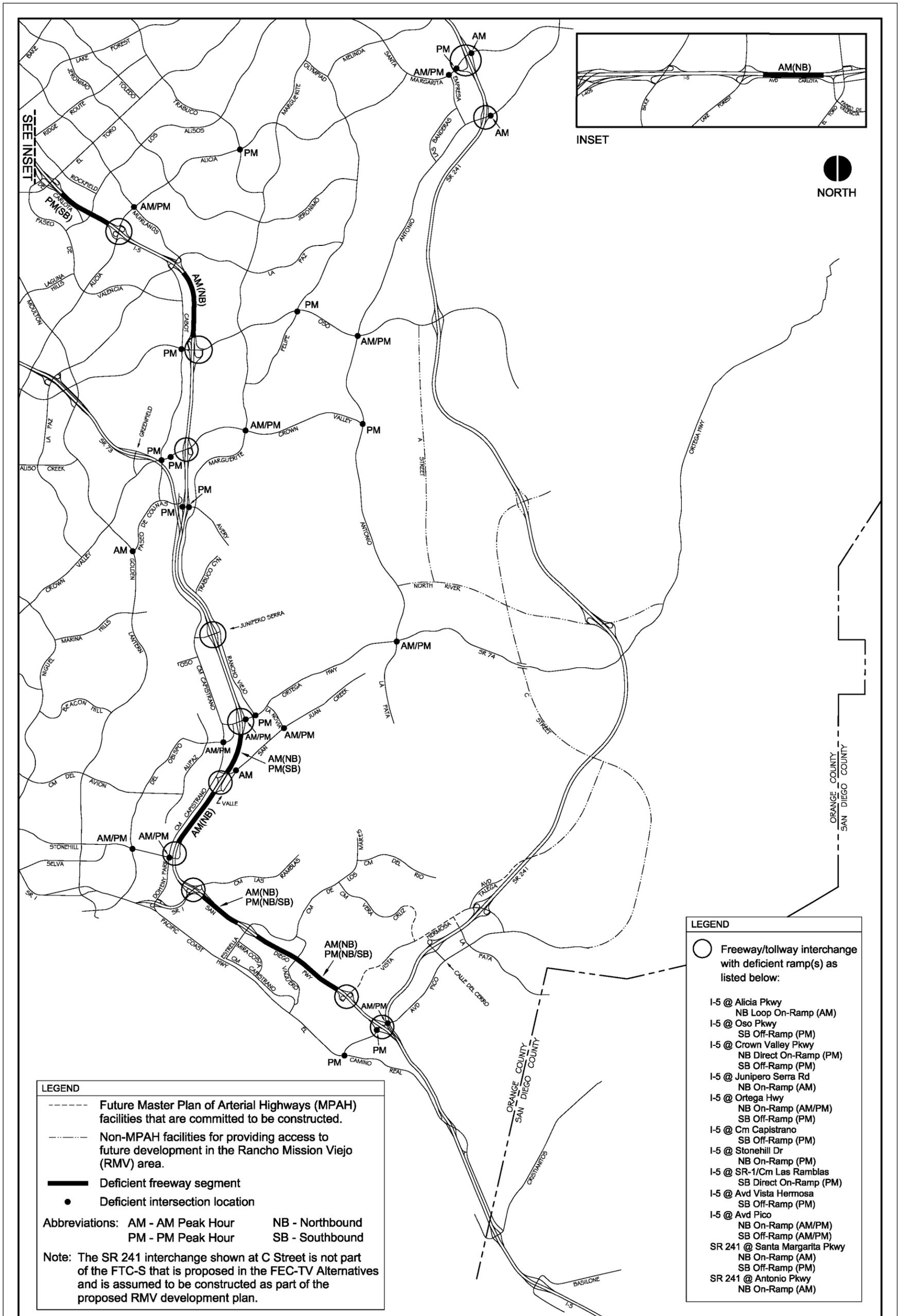
Figures 4-8 through 4-10 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in each of the three FEC-TV Alternatives analysis scenarios. Table 4-5 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the FEC-TV Alternatives.

Table 4-5
 SUMMARY OF 2025 DEFICIENCIES UNDER THE
 FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

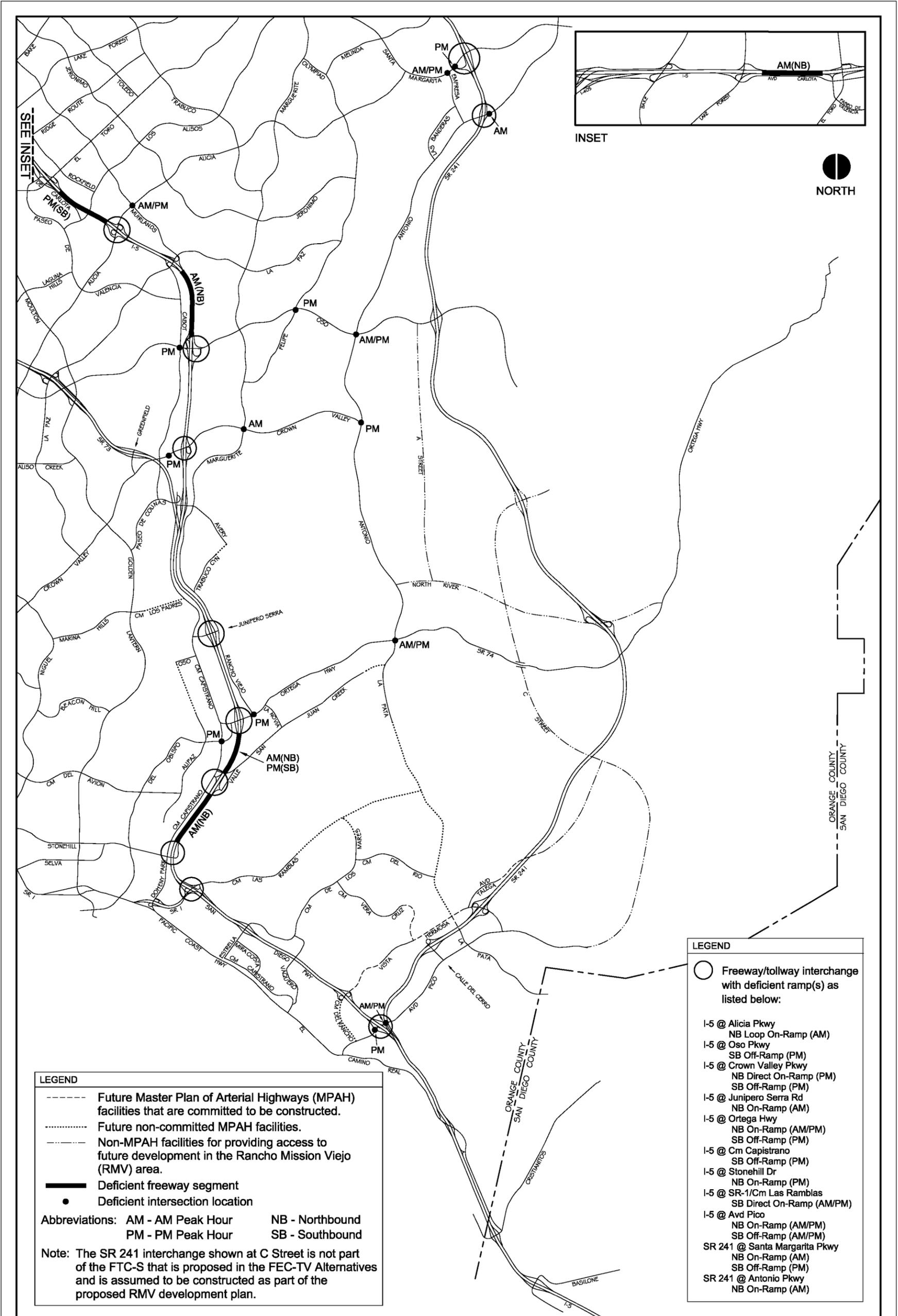
Analysis Scenario	Number of Deficient Facilities		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	27 (14 less than the No Action Alt.)	7 (5 less than the No Action Alt.)	16 (1 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	16 (11 less than the No Action Alt.)	5 (6 less than the No Action Alt.)	15 (1 more than the No Action Alt.)
Buildout circulation system with OCP-2000 for RMV (Scenario 4)	19 (8 less than the No Action Alt.)	5 (6 less than the No Action Alt.)	15 (1 less than the No Action Alt.)

The FEC-TV Alternatives result in substantially fewer arterial intersection and I-5 mainline deficiencies compared to the No Action Alternative. The number of deficient freeway/tollway ramps is similar for the FEC-TV Alternatives and the No Action Alternative because of direct adverse impacts that occur at the I-5/Avenida Pico interchange and indirect adverse impacts that occur at various I-5 ramps under the FEC-TV Alternatives. The indirect impacts occur because the FTC-S diverts traffic from I-5 under the FEC-TV Alternatives, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp intersections serving I-5. It is this additional traffic that causes indirect adverse impacts to occur under the FEC-TV Alternatives.

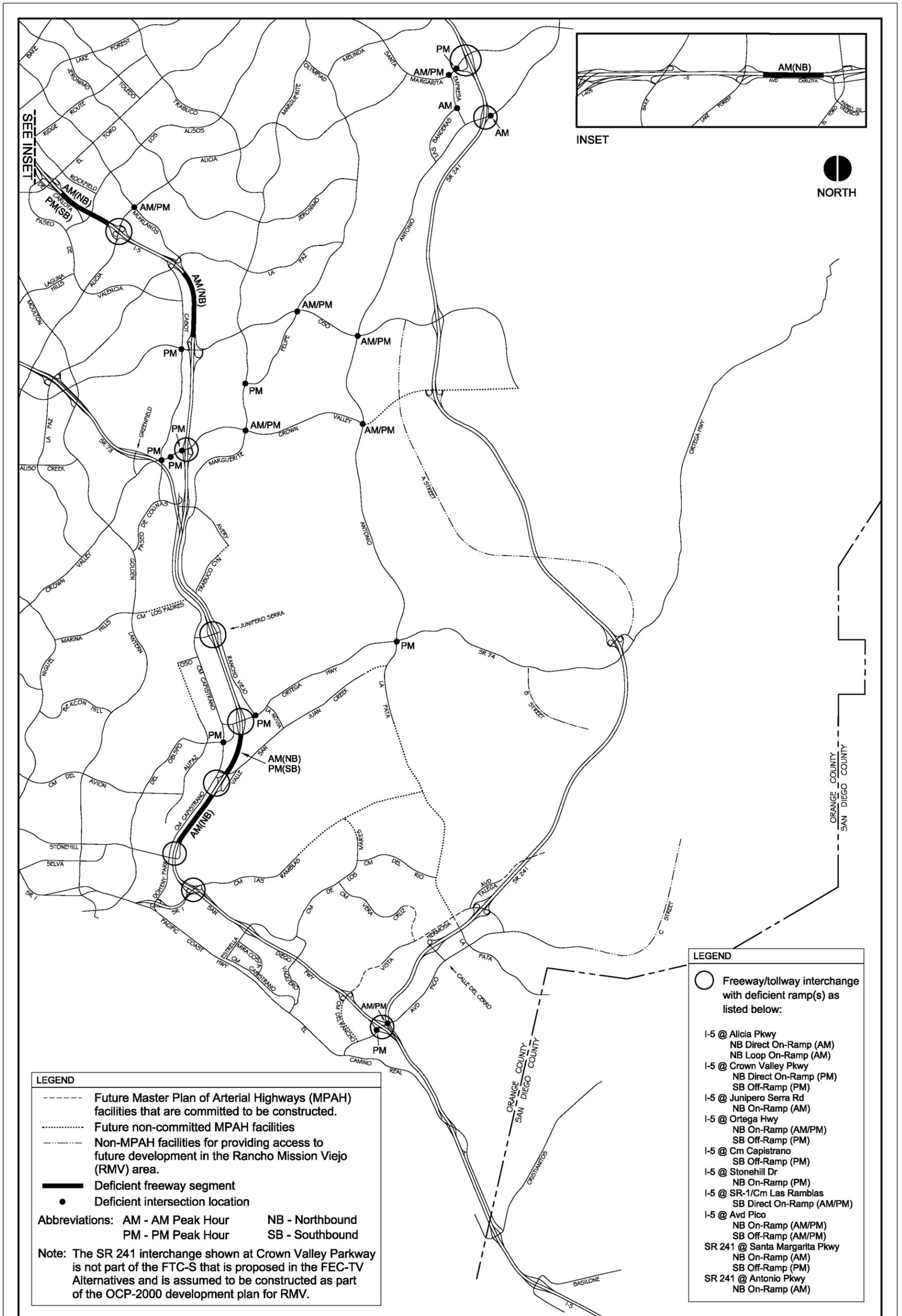
Table 4-6 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the FEC-TV Alternatives scenarios and the No Action Alternative scenarios. The FEC-TV Alternatives are forecast to have a beneficial effect at a substantial number of locations, including I-5 mainline segments, arterial intersections and freeway ramps. Under the FEC-TV Alternatives, direct adverse impacts are forecast to occur at two I-5/Avenida Pico interchange ramps and one I-5/Avenida Pico ramp intersection. Indirect adverse impacts are forecast to occur at four I-5 ramps and one I-5 ramp intersection under the FEC-TV Alternatives.



**2025 Peak Hour Deficiencies - FEC-TV-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)**



2025 Peak Hour Deficiencies - FEC-TV-Initial and Ultimate Alternatives
 (Buildout Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)

Table 4-6

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Antonio Pkwy & North River Rd	County	PM	3
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Avd La Pata & Avd Pico	San Clemente	AM/PM	3,4
Avd La Pata & Avd Vista Hermosa	San Clemente	AM/PM	1,3,4
Avd La Pata & Cm del Rio	San Clemente	PM	3,4
Cabot Rd & Crown Valley Pkwy	Laguna Niguel	PM	3
Cm Capistrano & I-5 southbound ramps	Caltrans/San Juan Capistrano	PM	4
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM	3,4
Cm Vera Cruz & Avd Vista Hermosa	San Clemente	AM/PM	1
I-5 southbound ramps & Cm Estrella	Caltrans/San Clemente/ Dana Point	PM	1
I-5 northbound ramps & Oso Pkwy	Caltrans/Mission Viejo	AM	4
La Novia Ave & Ortega Hwy	San Juan Capistrano	PM	1
La Pata Ave & San Juan Creek Rd	County	PM	3,4
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	1
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1,3
Pacific Coast Hwy & Cm Capistrano	San Clemente/Dana Point	PM	1
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3,4
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	1,3,4
I-5 (Avd Vista Hermosa to Avd Pico)	Caltrans/San Clemente	AM/PM	1
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	AM/PM	3,4
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
I-5 (SR 1/Cm Las Ramblas to Cm Estrella)	Caltrans/Dana Point	AM/PM	3,4
I-5 (Stonehill Dr to SR 1/Cm Las Ramblas)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
Freeway/Tollway Ramps			
I-5 at Cm Estrella (southbound off-ramp)	Caltrans/San Clemente/ Dana Point	PM	1
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	Caltrans/San Clemente	AM	1
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	1

Table 4-6 (cont)
SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b) (cont)			
Freeway/Tollway Ramps (cont)			
SR 241 at Antonio Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	4
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3,4
SR 241 at Oso Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	4
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Avd Pico	San Clemente	AM/PM	1,3,4
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	AM/PM	1,3,4
I-5 at Avd Pico (southbound off-ramp)	Caltrans/San Clemente	AM/PM	1,3,4
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Ortega Hwy	San Juan Capistrano	AM/PM	1
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Cm Capistrano (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1,3,4
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 at Ortega Hwy (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3,4

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

Mitigation measures that address the direct and indirect adverse impacts of the FEC-TV Alternatives are presented in Section 5.0 (Mitigation Measures). The direct adverse impacts have a nexus to the roadway facilities that are constructed in the FEC-TV Alternatives and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified in Section 5.0 to mitigate the direct adverse impacts of the FEC-TV Alternatives. Table 4-7 summarizes the share of traffic that is attributed to the FEC-TV Alternatives at each of the locations where direct adverse impacts occur.

At the locations where indirect adverse impacts occur, there is no nexus between the increase in traffic that is forecast under the FEC-TV Alternatives scenarios compared to the No Action Alternative scenarios and the roadway facilities that are constructed in the FEC-TV Alternatives. Therefore, there is no responsibility for the FEC-TV Alternatives to participate in the implementation of needed improvements at the locations where indirect adverse impacts occur.

4.2.3.6 FEC-CV-Initial and Ultimate Alternatives

The Far East Corridor – Cristianitos Variation (FEC-CV) – Initial and Ultimate Alternatives were analyzed under two scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Figures 4-11 and 4-12 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in the two FEC-CV Alternatives analysis scenarios. Table 4-8 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the FEC-CV Alternatives.

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/ Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	28 (13 less than the No Action Alt.)	9 (3 less than the No Action Alt.)	15 (2 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	14 (13 less than the No Action Alt.)	6 (5 less than the No Action Alt.)	14 (1 more than the No Action Alt.)

Table 4-7

SUMMARY OF 2025 TRAFFIC SHARE PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS
OF THE FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025 No Action Alt. V/C (b) (X)	2025 FEC-TV Alt. V/C (b) (Y)	FEC-TV Alt. Share (Y-X)	FEC-TV Alt. V/C Share Percentage (% of Y)
ARTERIAL INTERSECTIONS						
I-5 northbound ramps & Avd Pico	1,3,4	AM/PM	0.87	1.08	0.21	19%
FREEWAY RAMPS						
I-5 at Avd Pico (northbound on-ramp)	1,3,4	AM/PM	0.95	2.26	1.31	58%
I-5 at Avd Pico (southbound off-ramp)	1,3,4	AM/PM	0.59	1.42	0.83	58%

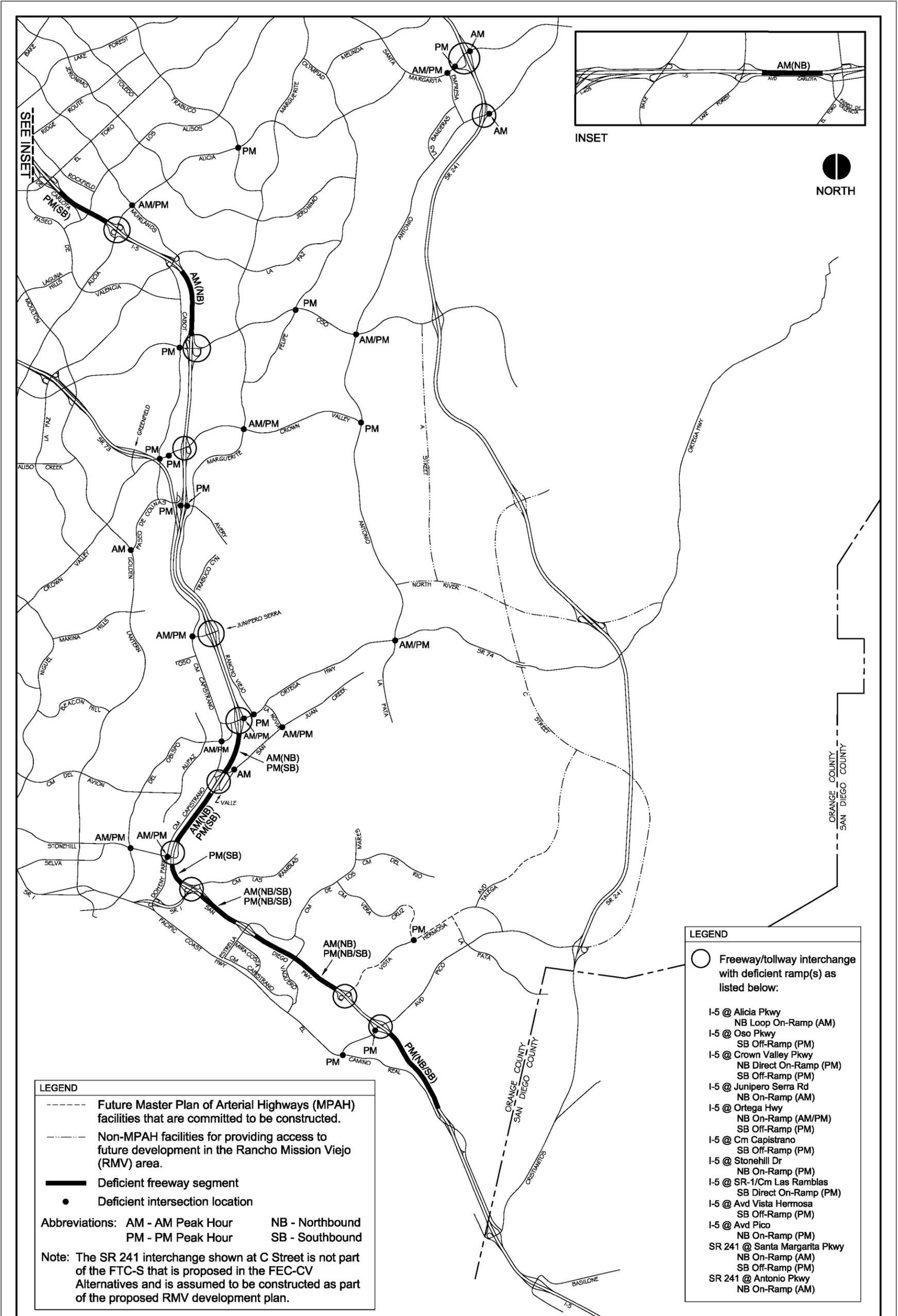
(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

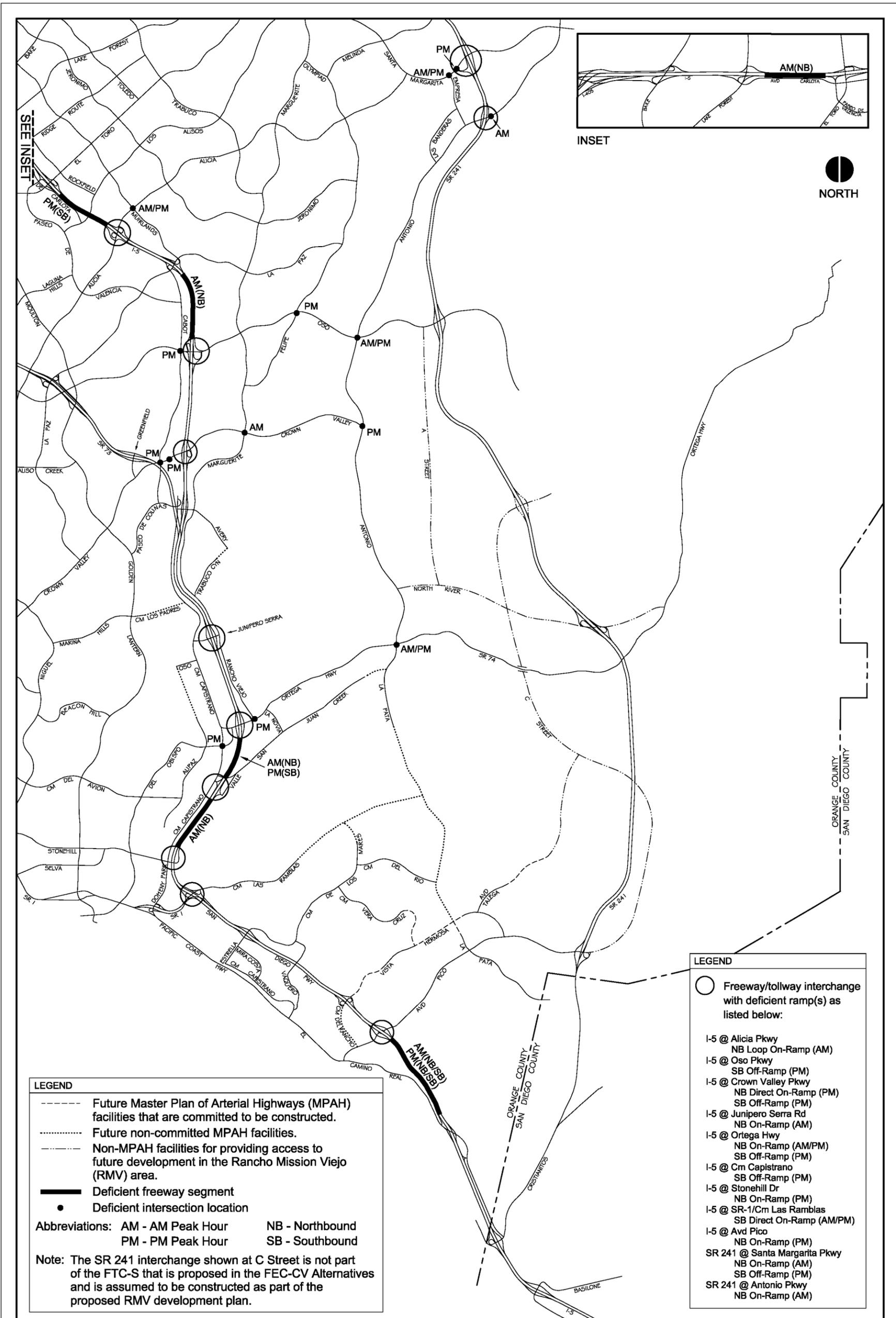
Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Average intersection capacity utilization (ICU) value or ramp volume/capacity (V/C) ratio for the scenario(s) and peak hour(s) impacted at each location.



2025 Peak Hour Deficiencies - FEC-CV-Initial and Ultimate Alternatives
 (Committed Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - FEC-CV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

The FEC-CV Alternatives result in substantially fewer arterial intersection and I-5 mainline deficiencies compared to the No Action Alternative. The number of deficient freeway/tollway ramps is similar for the FEC-CV Alternatives and the No Action Alternative because of indirect adverse impacts that occur at various I-5 ramps under the FEC-CV Alternatives. The indirect impacts occur because the FTC-S diverts traffic from I-5 under the FEC-CV Alternatives, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp intersections serving I-5. It is this additional traffic that causes indirect adverse impacts to occur under the FEC-CV Alternatives.

Table 4-9 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the FEC-CV Alternatives scenarios and the No Action Alternative scenarios. The FEC-CV Alternatives are forecast to have a beneficial effect at a substantial number of locations, including I-5 mainline segments, arterial intersections and I-5 ramps. No direct adverse impacts are forecast to occur under the FEC-CV Alternatives. However, indirect adverse impacts are forecast to occur at five I-5 ramps and one I-5 ramp intersection.

Mitigation measures that address the indirect adverse impacts of the FEC-CV Alternatives are presented in Section 5.0 (Mitigation Measures). At the locations where indirect adverse impacts occur, there is no nexus between the increase in traffic that is forecast under the FEC-CV Alternatives scenarios compared to the No Action Alternative scenarios and the roadway facilities that are constructed in the FEC-CV Alternatives. Therefore, there is no responsibility for the FEC-CV Alternatives to participate in the implementation of needed improvements at the locations where indirect adverse impacts occur.

4.2.3.7 FEC-AFV-Initial and Ultimate Alternatives

The Far East Corridor – Agricultural Fields Variation (FEC-AFV) – Initial and Ultimate Alternatives provide essentially the same connections to the local circulation system as the FEC Alternatives. Therefore, long-range traffic conditions based on the FEC-AFV Alternatives were not specifically analyzed because the future traffic conditions and the beneficial effects and adverse impacts on the circulation system under the FEC-AFV Alternatives are essentially the same as the FEC Alternatives results discussed earlier in Section 4.2.3.2.

4.2.3.8 FEC-OHV-Initial and Ultimate Alternatives

The Far East Corridor – Ortega Highway Variation (FEC-OHV) – Initial and Ultimate Alternatives were analyzed under two scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Figures 4-13 and 4-14 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or

Table 4-9

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Antonio Pkwy & North River Rd	County	PM	3
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Avd La Pata & Avd Pico	San Clemente	AM/PM	3
Avd La Pata & Avd Vista Hermosa	San Clemente	AM	1,3
Avd La Pata & Cm del Rio	San Clemente	PM	3
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM	3
I-5 northbound ramps & Avd Pico	Caltrans/San Clemente	AM	1,3
I-5 southbound ramps & Avd Pico	Caltrans/San Clemente	AM/PM	3
I-5 southbound ramps & Cm Estrella	Caltrans/San Clemente/ Dana Point	PM	1
La Novia Ave & Ortega Hwy	San Juan Capistrano	PM	1
La Pata Ave & San Juan Creek Rd	County	PM	3
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	1
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1,3
Pacific Coast Hwy & Cm Capistrano	San Clemente/Dana Point	PM	1
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	1,3
I-5 (Avd Vista Hermosa to Avd Pico)	Caltrans/San Clemente	AM/PM	1
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	PM	3
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 (SR 1/Cm Las Ramblas to Cm Estrella)	Caltrans/Dana Point	AM/PM	3
I-5 (Stonehill Dr to SR 1/Cm Las Ramblas)	Caltrans/San Juan Capistrano	AM/PM	3
Freeway/Tollway Ramps			
I-5 at Cm Estrella (southbound off-ramp)	Caltrans/San Clemente/ Dana Point	PM	1
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	Caltrans/San Clemente	AM	1
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	1
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3

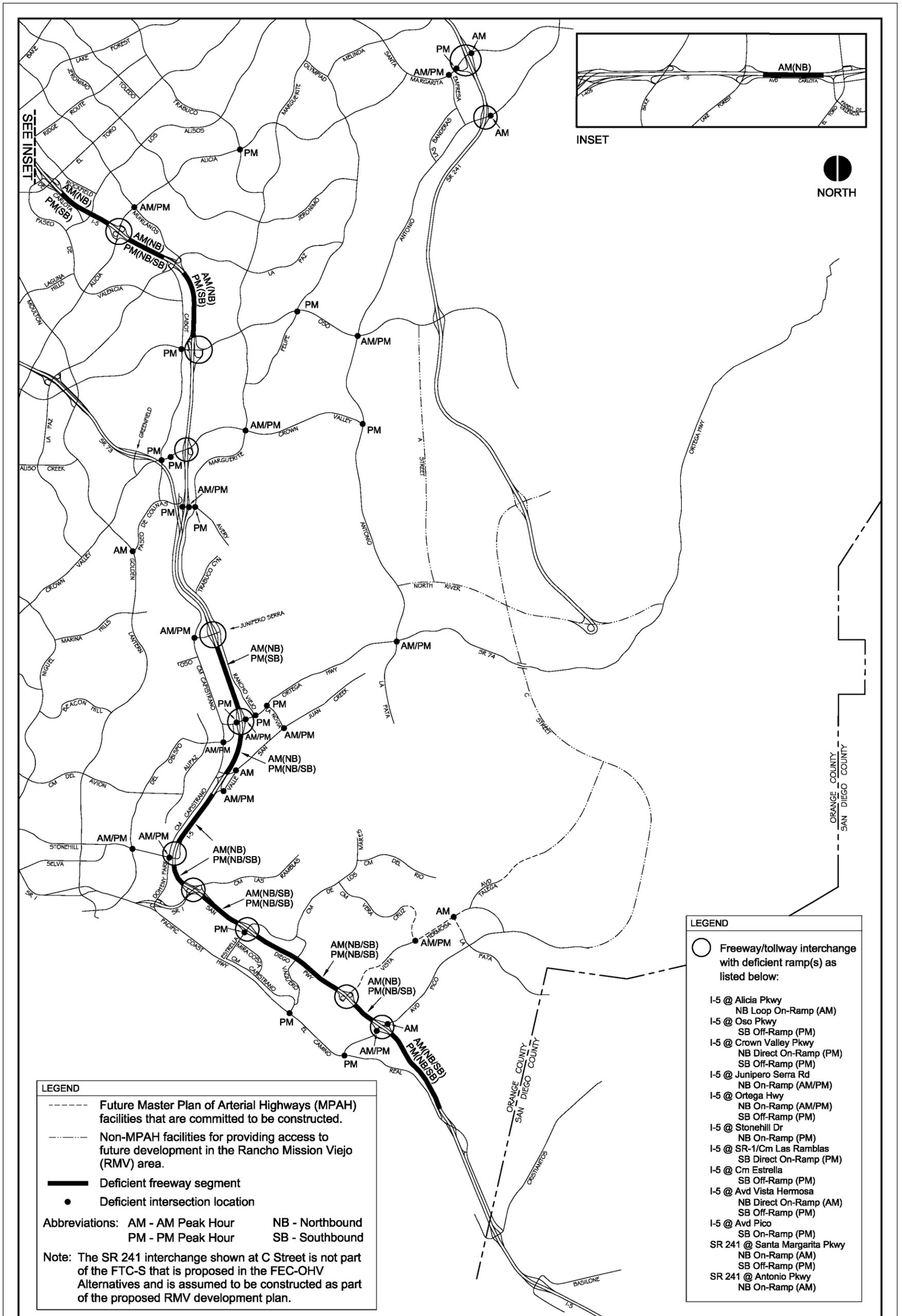
Table 4-9 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
None	--	--	--
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
None	--	--	--
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Ortega Hwy	San Juan Capistrano	AM/PM	1
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	PM	1,3
I-5 at Cm Capistrano (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1,3
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 at Ortega Hwy (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3

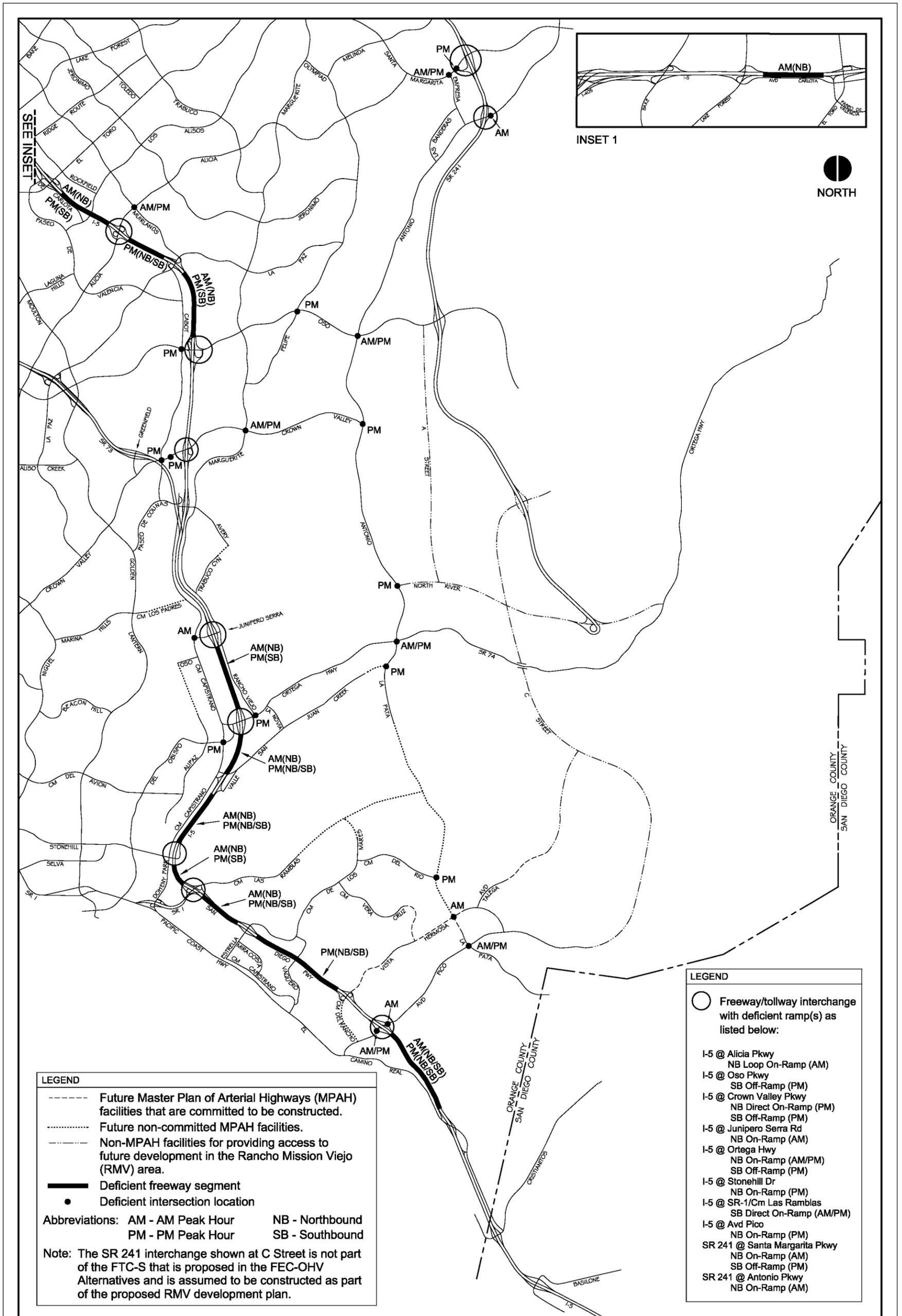
(a) The assumptions for each scenario are as follows:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.



2025 Peak Hour Deficiencies - FEC-OHV-Initial and Ultimate Alternatives
(Committed Highway Network with Proposed RMV Plan)



2025 Peak Hour Deficiencies - FEC-OHV-Initial and Ultimate Alternatives
 (Buildout Circulation System with Proposed RMV Plan)

PM) deficiencies are forecast in the two FEC-OHV Alternatives analysis scenarios. Table 4-10 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the FEC-OHV Alternatives.

Table 4-10
 SUMMARY OF 2025 DEFICIENCIES UNDER THE
 FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	36 (5 less than the No Action Alt.)	12 (same as the No Action Alt.)	16 (1 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	22 (5 less than the No Action Alt.)	11 (same as the No Action Alt.)	13 (1 less than the No Action Alt.)

The FEC-OHV Alternatives moderately reduce the number of deficient arterial intersections compared to the No Action Alternative, and the number of deficient I-5 mainline segments and freeway/tollway ramps is similar between the FEC-OHV Alternatives and the No Action Alternative.

Table 4-11 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the FEC-OHV Alternatives scenarios and the No Action Alternative scenarios. The FEC-OHV Alternatives are forecast to have a beneficial effect at six arterial intersections and one tollway ramp. Direct adverse impacts are forecast to occur at five arterial intersections under the FEC-OHV Alternatives, and no indirect adverse impacts are forecast to occur.

Mitigation measures that address the direct adverse impacts of the FEC-OHV Alternatives are presented in Section 5.0 (Mitigation Measures). The direct adverse impacts have a nexus to the roadway facilities that are constructed in the FEC-OHV Alternatives and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified in Section 5.0 to mitigate the direct adverse impacts of the FEC-OHV Alternatives. Table 4-12 summarizes the share of traffic that is attributed to the FEC-OHV Alternatives at each of the locations where direct adverse impacts occur.

4.2.3.9 FEC-APV-Initial and Ultimate Alternatives

The Far East Corridor – Avenida Pico Variation (FEC-APV) – Initial and Ultimate Alternatives were analyzed under two scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

Table 4-11

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1,3
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	PM	3
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
Antonio Pkwy-La Pata Ave & Ortega Hwy	County of Orange	PM	1
Antonio Pkwy & Oso Pkwy	County of Orange	PM	1
I-5 southbound ramps & Avd Pico	San Clemente	PM	3
La Novia Ave & Ortega Hwy	San Juan Capistrano	PM	1
La Pata Ave & San Juan Creek Rd	County of Orange	PM	3
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
None	--	--	--
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
None	--	--	--
Freeway (I-5) Mainline Segments			
None	--	--	--

Table 4-11 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
INDIRECT ADVERSE IMPACTS (b) (cont)			
Freeway/Tollway Ramps			
None	--	--	--

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

Table 4-12

SUMMARY OF 2025 TRAFFIC SHARE PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS
OF THE FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025 No Action Alt. V/C (b) (X)	2025 FEC-OHV Alt. V/C (b) (Y)	FEC-OHV Alt. Share (Y-X)	FEC-OHV Alt. V/C Share Percentage (% of Y)
ARTERIAL INTERSECTIONS						
Antonio Pkwy-La Pata Ave & Ortega Hwy	1	PM	1.43	1.45	0.02	1%
Antonio Pkwy & Oso Pkwy	1	PM	1.15	1.20	0.05	4%
I-5 southbound ramps & Avd Pico	3	PM	1.04	1.20	0.16	13%
La Novia Ave & Ortega Hwy	1	PM	0.97	0.98	0.01	1%
La Pata Ave & San Juan Creek Rd	3	PM	0.91	0.94	0.03	3%

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Intersection capacity utilization (ICU) value for the scenario and peak hour impacted at each location.

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

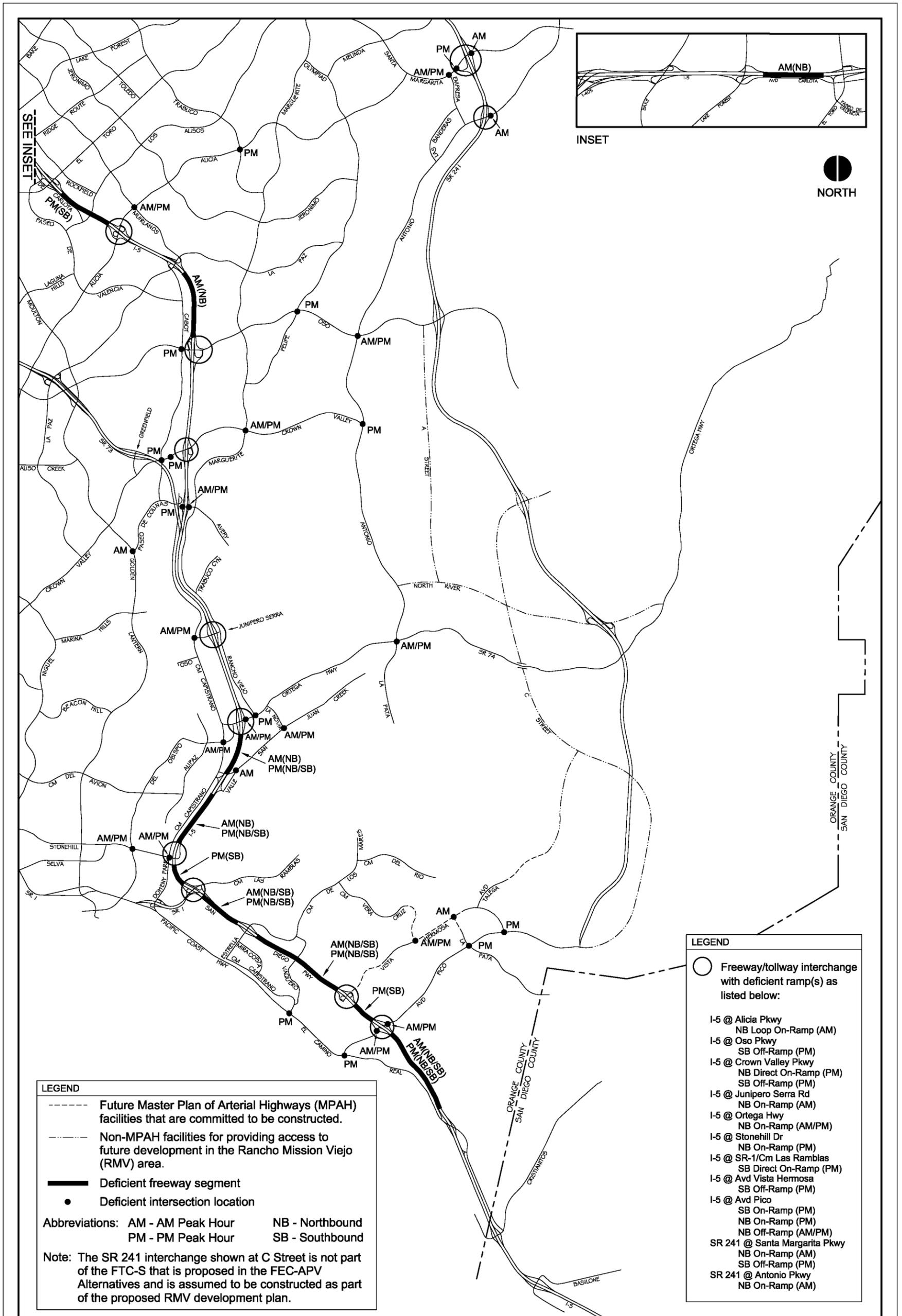
Figures 4-15 and 4-16 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in the two FEC-APV Alternatives analysis scenarios. Table 4-13 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the FEC-APV Alternatives.

Table 4-13
 SUMMARY OF 2025 DEFICIENCIES UNDER THE
 FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

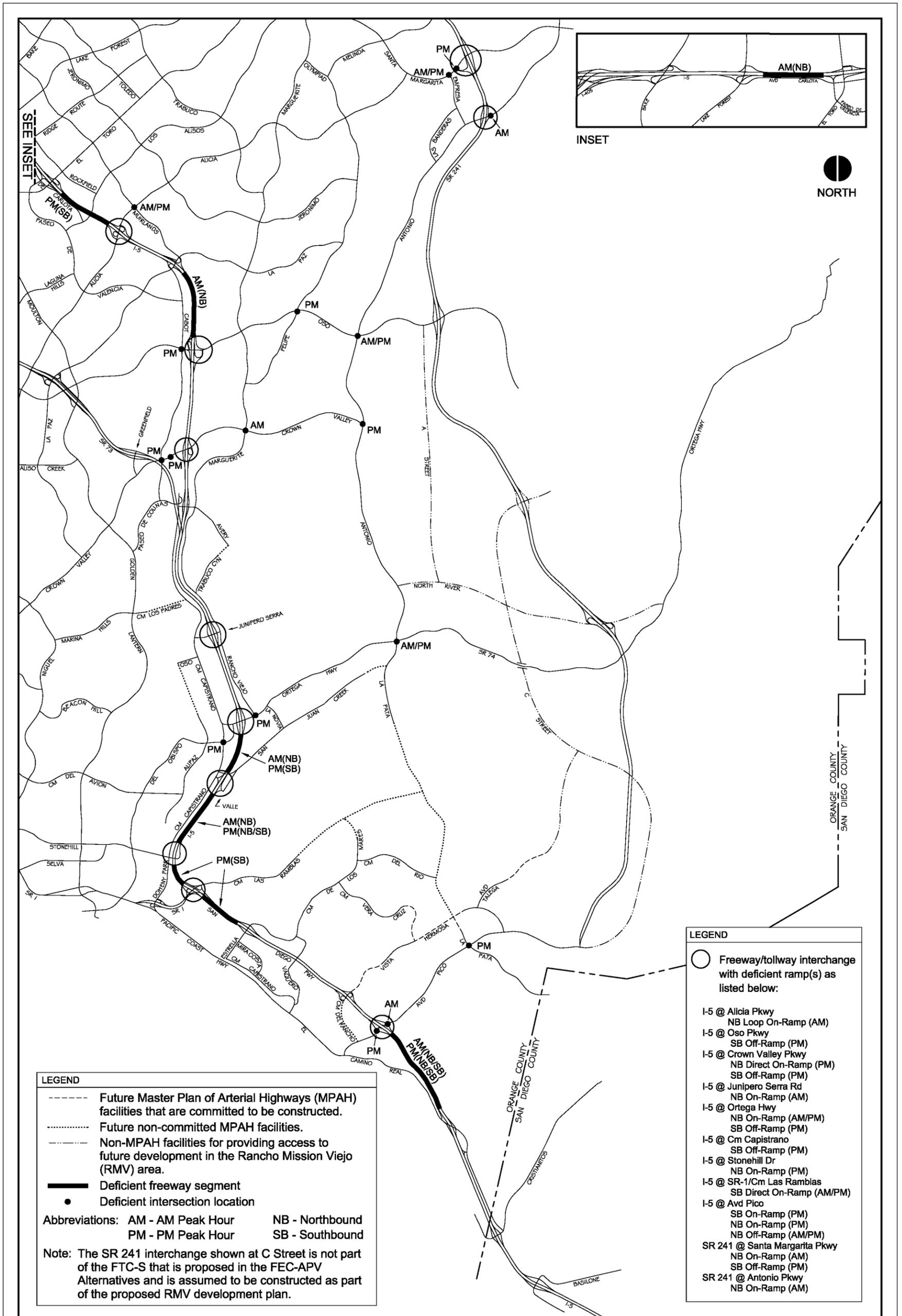
Analysis Scenario	Number of Deficient Facilities		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	33 (8 less than the No Action Alt.)	10 (2 less than the No Action Alt.)	15 (2 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	17 (10 less than the No Action Alt.)	8 (3 less than the No Action Alt.)	16 (2 more than the No Action Alt.)

The FEC-APV Alternatives moderately reduce the number of deficient arterial intersections and I-5 mainline segments compared to the No Action Alternative. The number of deficient freeway/tollway ramps is similar for the FEC-APV Alternatives and the No Action Alternative because of direct adverse impacts that occur at the I-5/Avenida Pico interchange and indirect adverse impacts that occur at various I-5 ramps under the FEC-APV Alternatives. The indirect impacts occur because the FTC-S diverts traffic from I-5 under the FEC-APV Alternatives, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp intersections serving I-5. It is this additional traffic that causes indirect adverse impacts to occur under the FEC-APV Alternatives.

Table 4-14 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the FEC-APV Alternatives scenarios and the No Action Alternative scenarios. The FEC-APV Alternatives are forecast to have a beneficial effect at a number of locations, including I-5 mainline segments, arterial intersections and I-5 ramps. Under the FEC-APV Alternatives, direct adverse impacts are forecast to occur at four intersection locations in San Clemente and at three I-5/Avenida Pico interchange ramps. Indirect adverse impacts are forecast to occur at three I-5 ramps and one I-5 ramp intersection under the FEC-APV Alternatives.



**2025 Peak Hour Deficiencies - FEC-APV-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)**



2025 Peak Hour Deficiencies - FEC-APV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

Table 4-14

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Antonio Pkwy & North River Rd	County	PM	3
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Avd La Pata & Cm del Rio	San Clemente	PM	3
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM	3
La Novia Ave & Ortega Hwy	San Juan Capistrano	PM	1
La Pata Ave & San Juan Creek Rd	County	PM	3
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	1
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1,3
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	1,3
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	PM	3
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway/Tollway Ramps			
I-5 at Cm Estrella (southbound off-ramp)	Caltrans/San Clemente/ Dana Point	PM	1
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	Caltrans/San Clemente	AM	1
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
Avd La Pata & Avd Pico	San Clemente	PM	1
Avd Vista Hermosa & Avd Pico	San Clemente	PM	1
I-5 northbound ramps & Avd Pico	San Clemente	AM/PM	1,3
I-5 southbound ramps & Avd Pico	San Clemente	AM/PM	1,3
Freeway (I-5) Mainline Segments			
None	--	--	--

Table 4-14 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
DIRECT ADVERSE IMPACTS (b) (cont)			
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound off-ramp)	Caltrans/San Clemente	AM/PM	1,3
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	PM	1
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	1,3
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Ortega Hwy	San Juan Capistrano	AM/PM	1
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Cm Capistrano (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	3
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

Mitigation measures that address the direct and indirect adverse impacts of the FEC-APV Alternatives are presented in Section 5.0 (Mitigation Measures). The direct adverse impacts have a nexus to the roadway facilities that are constructed in the FEC-APV Alternatives and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified in Section 5.0 to mitigate the direct adverse impacts of the FEC-APV Alternatives. Table 4-15 summarizes the share of traffic that is attributed to the FEC-APV Alternatives at each of the locations where direct adverse impacts occur.

At the locations where indirect adverse impacts occur, there is no nexus between the increase in traffic that is forecast under the FEC-APV Alternatives scenarios compared to the No Action Alternative scenarios and the roadway facilities that are constructed in the FEC-APV Alternatives. Therefore, there is no responsibility for the FEC-APV Alternatives to participate in the implementation of needed improvements at the locations where indirect adverse impacts occur.

4.2.3.10 CC-Initial and Ultimate Alternatives

The Central Corridor – Complete (CC) – Initial and Ultimate Alternatives were analyzed under three scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Figures 4-17 through 4-19 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in each of the three CC Alternatives analysis scenarios. Table 4-16 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the CC Alternatives.

Table 4-15

SUMMARY OF 2025 TRAFFIC SHARE PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS
OF THE FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES

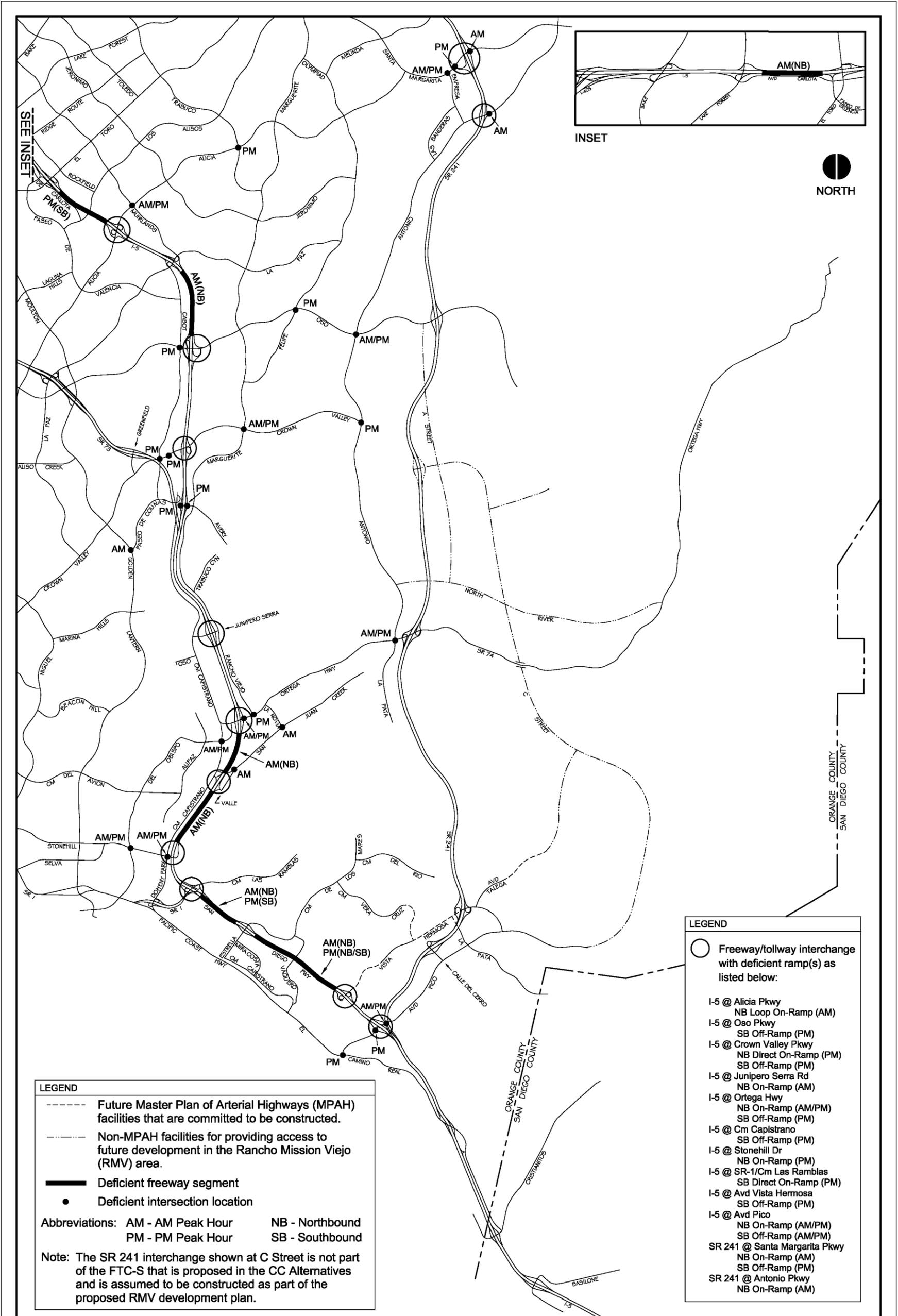
Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025 No Action Alt. V/C (b) (X)	2025 FEC-APV Alt. V/C (b) (Y)	FEC-APV Alt. Share (Y-X)	FEC-APV Alt. V/C Share Percentage (% of Y)
ARTERIAL INTERSECTIONS						
Avd La Pata & Avd Pico	1	PM	0.79	0.99	0.20	20%
Avd Vista Hermosa & Avd Pico	1	PM	0.74	1.09	0.35	32%
I-5 northbound ramps & Avd Pico	1,3	AM/PM	0.90	1.07	0.17	13%
I-5 southbound ramps & Avd Pico	1,3	AM/PM	1.07	1.34	0.27	20%
FREEWAY RAMPS						
I-5 at Avd Pico (northbound off-ramp)	1,3	AM/PM	0.72	1.13	0.41	36%
I-5 at Avd Pico (northbound on-ramp)	1	PM	0.95	1.01	0.06	6%
I-5 at Avd Pico (southbound on-ramp)	1,3	PM	0.96	1.45	0.49	34%

(a) The assumptions for each scenario are as follows:

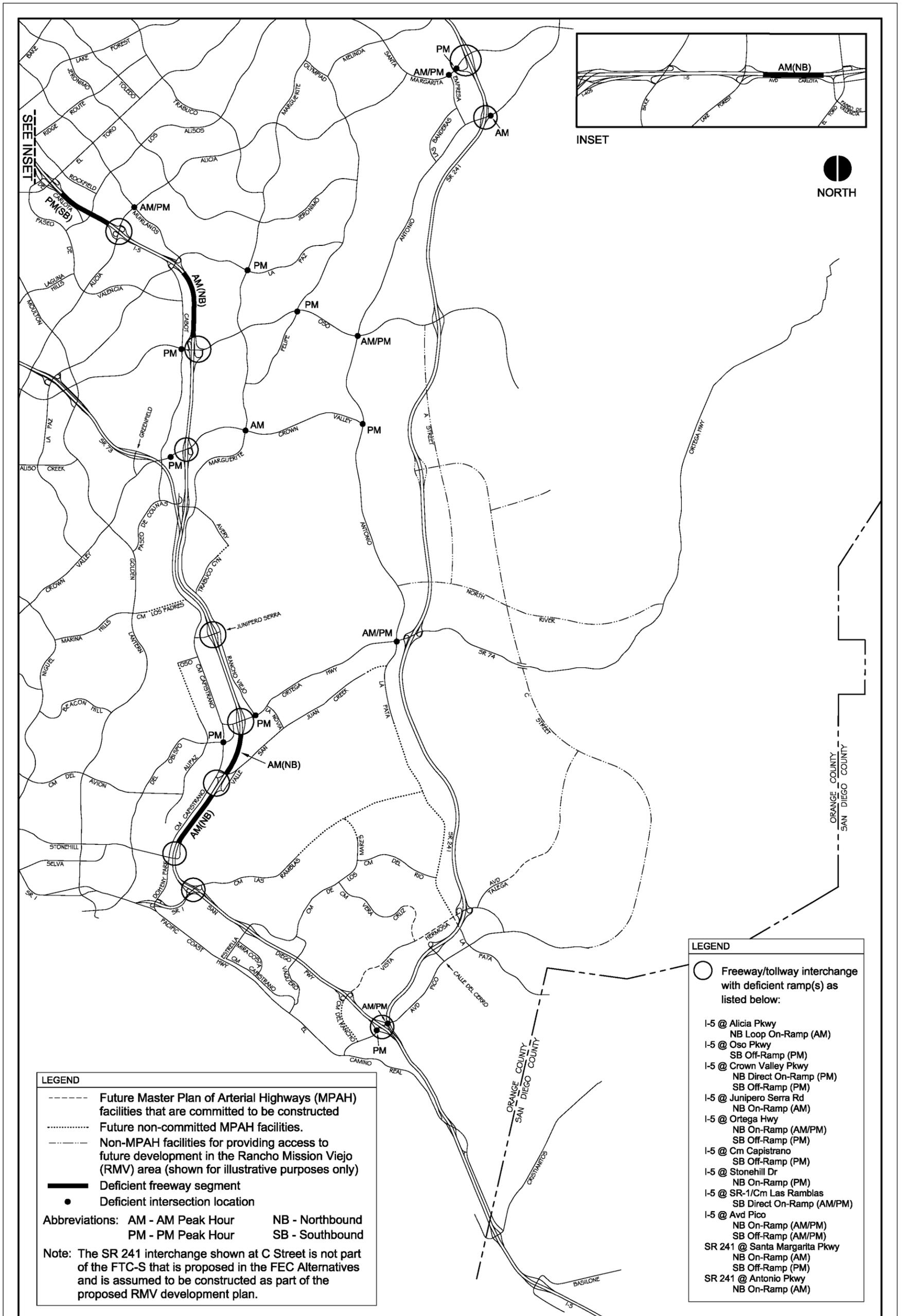
Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

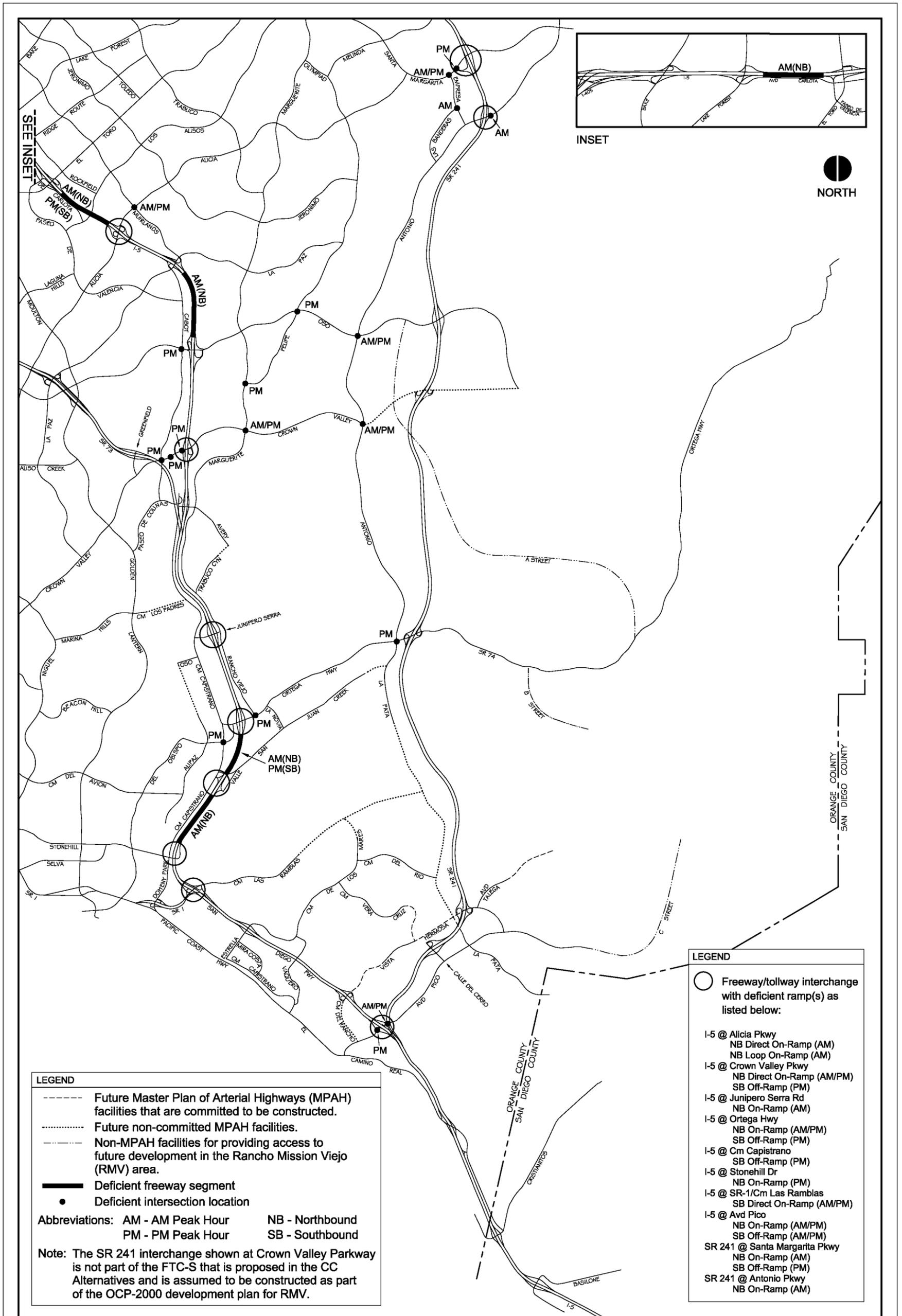
(b) Average intersection capacity utilization (ICU) value or ramp volume/capacity (V/C) ratio for the scenario(s) and peak hour(s) impacted at each location.



2025 Peak Hour Deficiencies - CC-Initial and Ultimate Alternatives
 (Committed Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - CC-Initial and Ultimate Alternatives
 (Buildout Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - CC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)

Table 4-16
 SUMMARY OF 2025 DEFICIENCIES UNDER THE
 CC-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	27 (14 less than the No Action Alt.)	7 (5 less than the No Action Alt.)	16 (1 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	16 (11 less than the No Action Alt.)	5 (6 less than the No Action Alt.)	15 (1 more than the No Action Alt.)
Buildout circulation system with OCP-2000 for RMV (Scenario 4)	19 (8 less than the No Action Alt.)	5 (6 less than the No Action Alt.)	15 (1 less than the No Action Alt.)

The CC Alternatives result in substantially fewer arterial intersection and I-5 mainline deficiencies compared to the No Action Alternative. The number of deficient freeway/tollway ramps is similar for the CC Alternatives and the No Action Alternative because of direct adverse impacts that occur at the I-5/Avenida Pico interchange and indirect adverse impacts that occur at various I-5 ramps under the CC Alternatives. The indirect impacts occur because the FTC-S diverts traffic from I-5 under the CC Alternatives, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp intersections serving I-5. It is this additional traffic that causes indirect adverse impacts to occur under the CC Alternatives.

Table 4-17 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the CC Alternatives scenarios and the No Action Alternative scenarios. The CC Alternatives are forecast to have a beneficial effect at a substantial number of locations, including I-5 mainline segments, arterial intersections and freeway/tollway ramps. Under the CC Alternatives, direct adverse impacts are forecast to occur at two I-5/Avenida Pico interchange ramps and one I-5/Avenida Pico ramp intersection. Indirect adverse impacts are forecast to occur at four I-5 ramps and one I-5 ramp intersection under the CC Alternatives.

Mitigation measures that address the direct and indirect adverse impacts of the CC Alternatives are presented in Section 5.0 (Mitigation Measures). The direct adverse impacts have a nexus to the roadway facilities that are constructed in the CC Alternatives and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified in Section 5.0 to mitigate the direct adverse impacts of the CC Alternatives. Table 4-18 summarizes the share of traffic that is attributed to the CC Alternatives at each of the locations where direct adverse impacts occur.

Table 4-17

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
CC-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Antonio Pkwy & North River Rd	County	PM	3
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Avd La Pata & Avd Pico	San Clemente	AM/PM	3,4
Avd La Pata & Avd Vista Hermosa	San Clemente	AM/PM	1,3,4
Avd La Pata & Cm del Rio	San Clemente	PM	3,4
Cabot Rd & Crown Valley Pkwy	Laguna Niguel	PM	3
Cm Capistrano & I-5 southbound ramps	Caltrans/San Juan Capistrano	PM	4
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM/PM	1,3,4
Cm Vera Cruz & Avd Vista Hermosa	San Clemente	AM/PM	1
I-5 southbound ramps & Cm Estrella	Caltrans/San Clemente/ Dana Point	PM	1
I-5 northbound ramps & Oso Pkwy	Caltrans/Mission Viejo	AM	4
La Novia Ave & Ortega Hwy	San Juan Capistrano	PM	1
La Pata Ave & San Juan Creek Rd	County	PM	3,4
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	1
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1
Pacific Coast Hwy & Cm Capistrano	San Clemente/Dana Point	PM	1
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3,4
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	1,3,4
I-5 (Avd Vista Hermosa to Avd Pico)	Caltrans/San Clemente	AM/PM	1
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	AM/PM	3,4
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
I-5 (SR 1/Cm Las Ramblas to Cm Estrella)	Caltrans/Dana Point	AM/PM	3,4
I-5 (Stonehill Dr to SR 1/Cm Las Ramblas)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
Freeway/Tollway Ramps			
I-5 at Cm Estrella (southbound off-ramp)	Caltrans/San Clemente/ Dana Point	PM	1
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	Caltrans/San Clemente	AM	1
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	1

Table 4-17 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 CC-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b) (cont)			
Freeway/Tollway Ramps (cont)			
SR 241 at Antonio Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	4
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3,4
SR 241 at Oso Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	4
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Avd Pico	San Clemente	AM/PM	1,3,4
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	AM/PM	1,3,4
I-5 at Avd Pico (southbound off-ramp)	Caltrans/San Clemente	AM/PM	1,3,4
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Ortega Hwy	San Juan Capistrano	AM/PM	1
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Cm Capistrano (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1,3,4
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 at Ortega Hwy (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3,4

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

Table 4-18

SUMMARY OF 2025 TRAFFIC SHARE PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS OF THE CC-INITIAL AND ULTIMATE ALTERNATIVES

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025 No Action Alt. V/C (b) (X)	2025 CC Alt. V/C (b) (Y)	CC Alt. V/C Share (Y-X)	CC Alt. V/C Share Percentage (% of Y)
ARTERIAL INTERSECTIONS						
I-5 northbound ramps & Avd Pico	1,3,4	AM/PM	0.87	1.08	0.21	19%
FREEWAY RAMPS						
I-5 at Avd Pico (northbound on-ramp)	1,3,4	AM/PM	0.95	2.26	1.31	58%
I-5 at Avd Pico (southbound off-ramp)	1,3,4	AM/PM	0.59	1.42	0.83	58%

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Average intersection capacity utilization (ICU) value or ramp volume/capacity (V/C) ratio for the scenario(s) and peak hour(s) impacted at each location.

At the locations where indirect adverse impacts occur, there is no nexus between the increase in traffic that is forecast under the CC Alternatives scenarios compared to the No Action Alternative scenarios and the roadway facilities that are constructed in the CC Alternatives. Therefore, there is no responsibility for the CC Alternatives to participate in the implementation of needed improvements at the locations where indirect adverse impacts occur.

4.2.3.11 CC-ALPV-Initial and Ultimate Alternatives

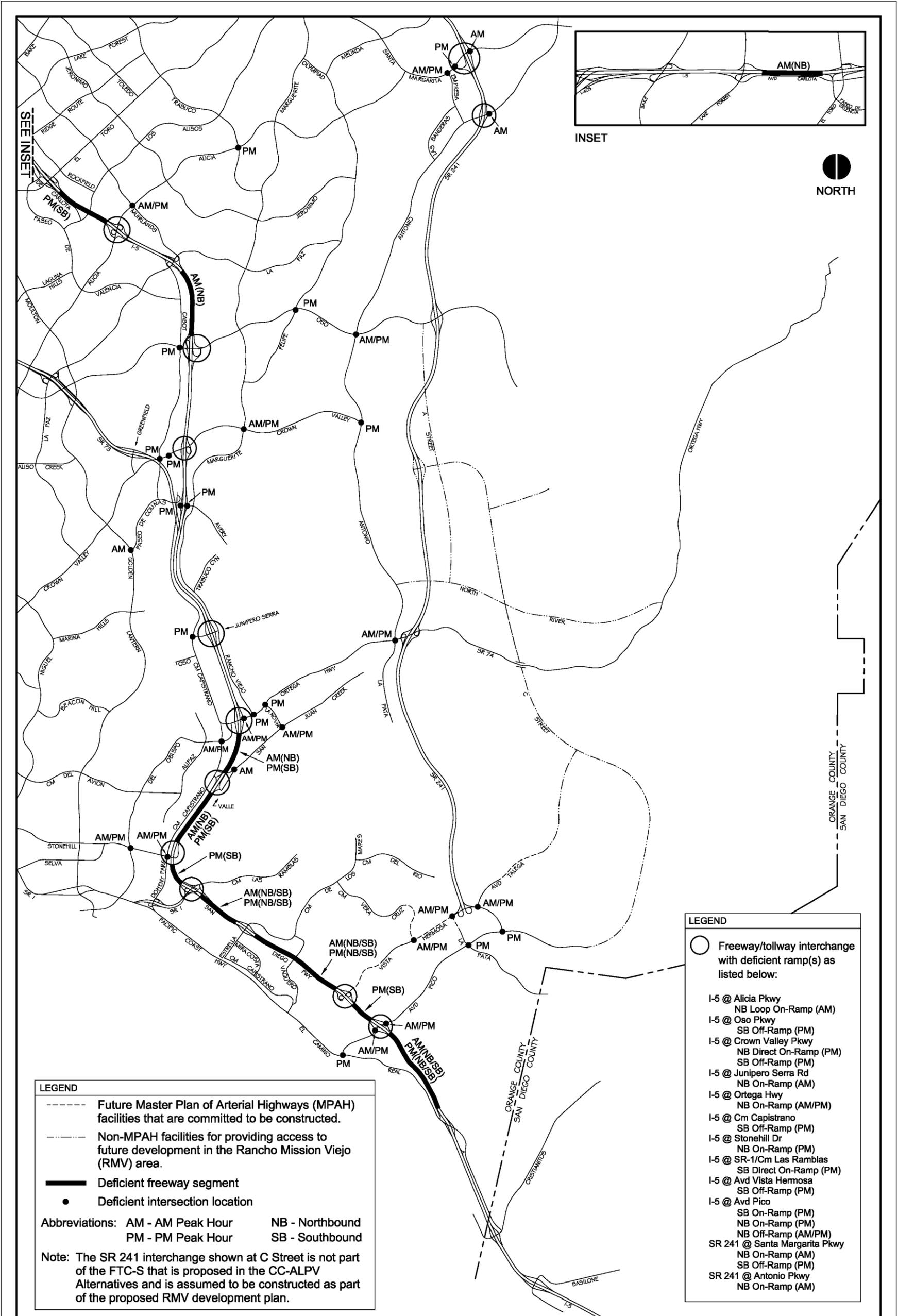
The Central Corridor – Avenida La Pata Variation (CC-ALPV) – Initial and Ultimate Alternatives were analyzed under two scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

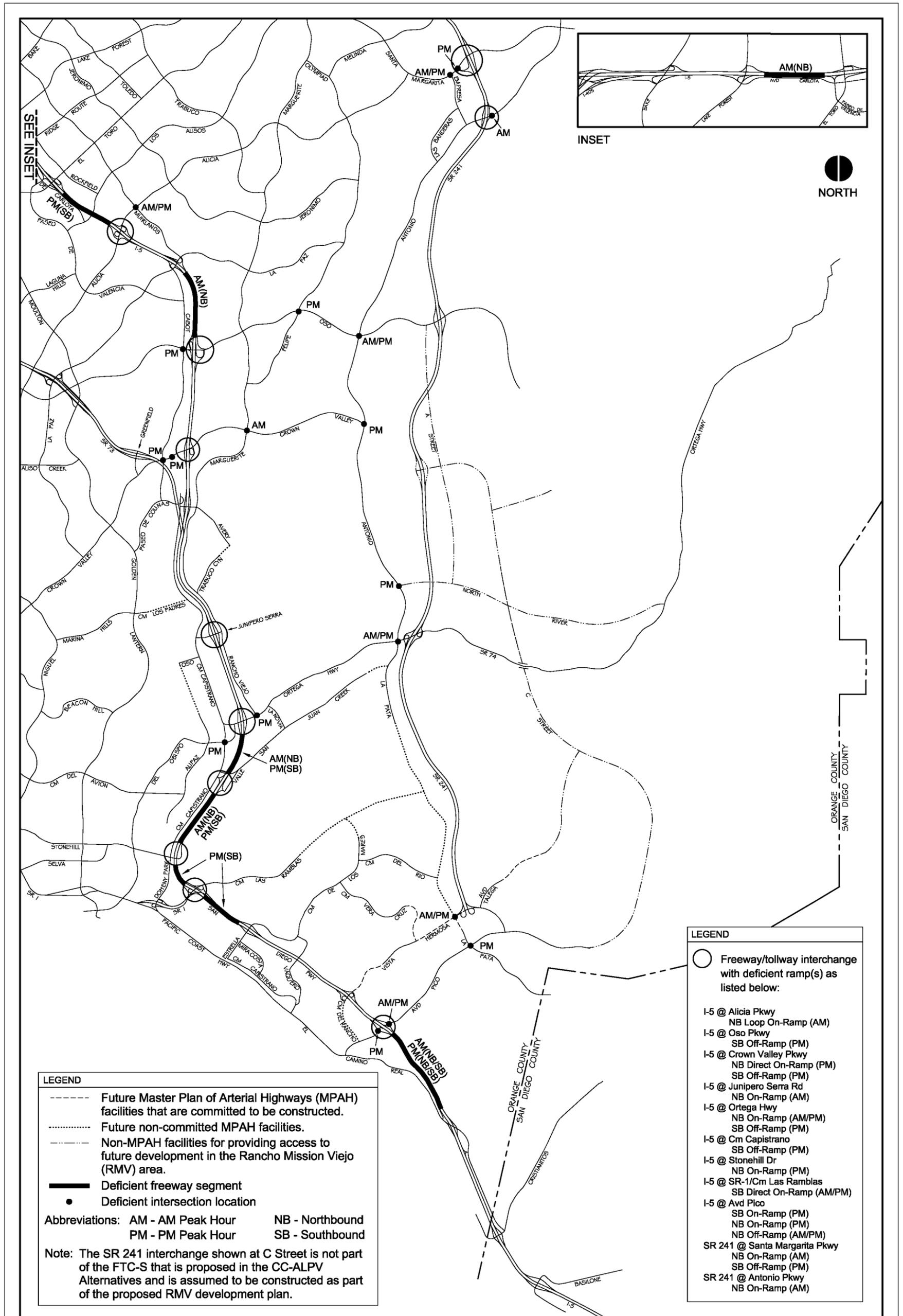
Figures 4-20 and 4-21 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in the two CC-ALPV Alternatives analysis scenarios. Table 4-19 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the CC-ALPV Alternatives.

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/ Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	34 (7 less than the No Action Alt.)	10 (2 less than the No Action Alt.)	16 (1 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	20 (7 less than the No Action Alt.)	8 (3 less than the No Action Alt.)	16 (2 more than the No Action Alt.)

The CC-ALPV Alternatives moderately reduce the number of deficient arterial intersections and I-5 mainline segments compared to the No Action Alternative. The number of deficient freeway/tollway ramps is similar for the CC-ALPV Alternatives and the No Action Alternative because of direct adverse impacts that occur at the I-5/Avenida Pico interchange and indirect adverse impacts that occur at various I-5 ramps under the CC-ALPV Alternatives. The indirect impacts occur because the FTC-S diverts traffic from I-5 under the CC-ALPV Alternatives, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise



2025 Peak Hour Deficiencies - CC-ALPV-Initial and Ultimate Alternatives
 (Committed Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - CC-ALPV-Initial and Ultimate Alternatives
 (Buildout Circulation System with Proposed RMV Plan)

avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp intersections serving I-5. It is this additional traffic that causes indirect adverse impacts to occur under the CC-ALPV Alternatives.

Table 4-20 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the CC-ALPV Alternatives scenarios and the No Action Alternative scenarios. The CC-ALPV Alternatives are forecast to have a beneficial effect at a number of locations, including I-5 mainline segments, arterial intersections and I-5 ramps. Under the CC-ALPV Alternatives, direct adverse impacts are forecast to occur at seven intersection locations in San Clemente and at three I-5/Avenida Pico interchange ramps. Indirect adverse impacts are forecast to occur at three I-5 ramps and one I-5 ramp intersection under the CC-ALPV Alternatives.

Mitigation measures that address the direct and indirect adverse impacts of the CC-ALPV Alternatives are presented in Section 5.0 (Mitigation Measures). The direct adverse impacts have a nexus to the roadway facilities that are constructed in the CC-ALPV Alternatives and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified in Section 5.0 to mitigate the direct adverse impacts of the CC-ALPV Alternatives. Table 4-21 summarizes the share of traffic that is attributed to the CC-ALPV Alternatives at each of the locations where direct adverse impacts occur.

At the locations where indirect adverse impacts occur, there is no nexus between the increase in traffic that is forecast under the CC-ALPV Alternatives scenarios compared to the No Action Alternative scenarios and the roadway facilities that are constructed in the CC-ALPV Alternatives. Therefore, there is no responsibility for the CC-ALPV Alternatives to participate in the implementation of needed improvements at the locations where indirect adverse impacts occur.

4.2.3.12 CC-OHV-Initial and Ultimate Alternatives

The Central Corridor – Ortega Highway Variation (CC-OHV) – Initial and Ultimate Alternatives were analyzed under two scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Figures 4-22 and 4-23 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in the two CC-OHV Alternatives analysis scenarios. Table 4-22 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the CC-OHV Alternatives.

Table 4-20

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Avd La Pata & Cm del Rio	San Clemente	PM	3
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM	3
I-5 southbound ramps & Cm Estrella	Caltrans/San Clemente/ Dana Point	PM	1
La Pata Ave & San Juan Creek Rd	County	PM	3
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	1
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1,3
Pacific Coast Hwy & Cm Capistrano	San Clemente/Dana Point	PM	1
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	1,3
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	PM	3
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway/Tollway Ramps			
I-5 at Cm Estrella (southbound off-ramp)	Caltrans/San Clemente/ Dana Point	PM	1
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	Caltrans/San Clemente	AM	1
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
Avd La Pata & Avd Pico	San Clemente	PM	1,3
Avd La Pata & Avd Vista Hermosa	San Clemente	AM/PM	1,3
Avd Talega & Avd Vista Hermosa	San Clemente	AM/PM	1
Avd Vista Hermosa & Avd Pico	San Clemente	PM	1
Cm Vera Cruz & Avd Vista Hermosa	San Clemente	AM	1
I-5 northbound ramps & Avd Pico	San Clemente	AM/PM	1,3
I-5 southbound ramps & Avd Pico	San Clemente	AM/PM	1,3

Table 4-20 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
DIRECT ADVERSE IMPACTS (b) (cont)			
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound off-ramp)	Caltrans/San Clemente	AM/PM	1,3
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	PM	1,3
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	1,3
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Ortega Hwy	San Juan Capistrano	AM/PM	1
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Cm Capistrano (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1,3
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

Table 4-21

SUMMARY OF 2025 TRAFFIC SHARE PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS
OF THE CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES

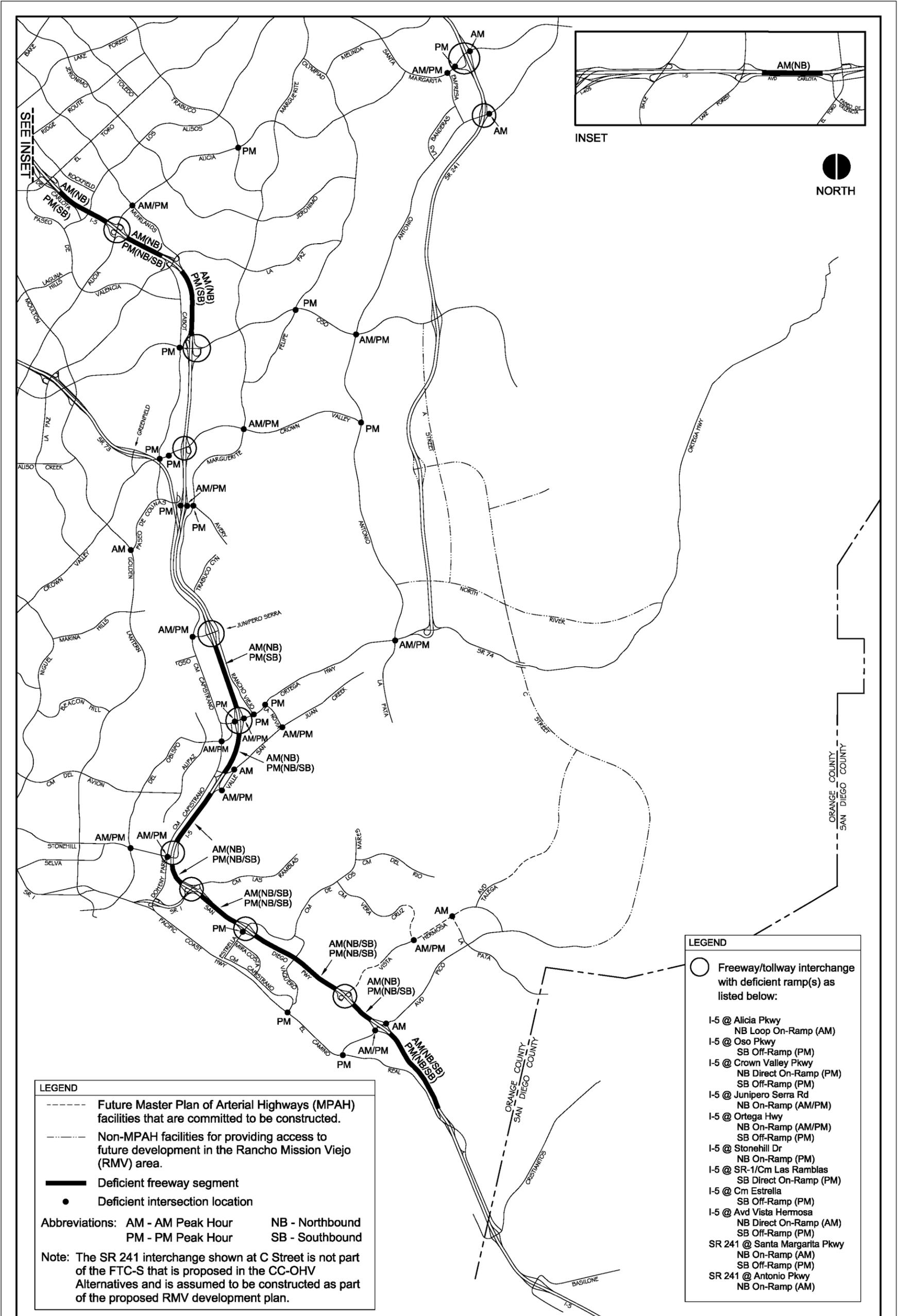
Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025 No Action Alt. V/C (b) (X)	2025 CC-ALPV Alt. V/C (b) (Y)	CC-ALPV Alt. Share (Y-X)	CC-ALPV Alt. V/C Share Percentage (% of Y)
ARTERIAL INTERSECTIONS						
Avd La Pata & Avd Pico	1,3	PM	0.92	1.09	0.17	16%
Avd La Pata & Avd Vista Hermosa	1,3	AM/PM	0.98	1.26	0.28	22%
Avd Talega & Avd Vista Hermosa	1	AM/PM	0.63	1.00	0.37	37%
Avd Vista Hermosa & Avd Pico	1	PM	0.74	1.08	0.34	31%
Cm Vera Cruz & Avd Vista Hermosa	1	AM	1.04	1.16	0.12	10%
I-5 northbound ramps & Avd Pico	1,3	AM/PM	0.87	1.05	0.18	17%
I-5 southbound ramps & Avd Pico	1,3	AM/PM	1.07	1.36	0.29	21%
FREEWAY RAMPS						
I-5 at Avd Pico (northbound off-ramp)	1,3	AM/PM	0.72	1.13	0.41	36%
I-5 at Avd Pico (northbound on-ramp)	1,3	PM	1.01	1.07	0.06	6%
I-5 at Avd Pico (southbound on-ramp)	1,3	PM	0.96	1.48	0.52	35%

(a) The assumptions for each scenario are as follows:

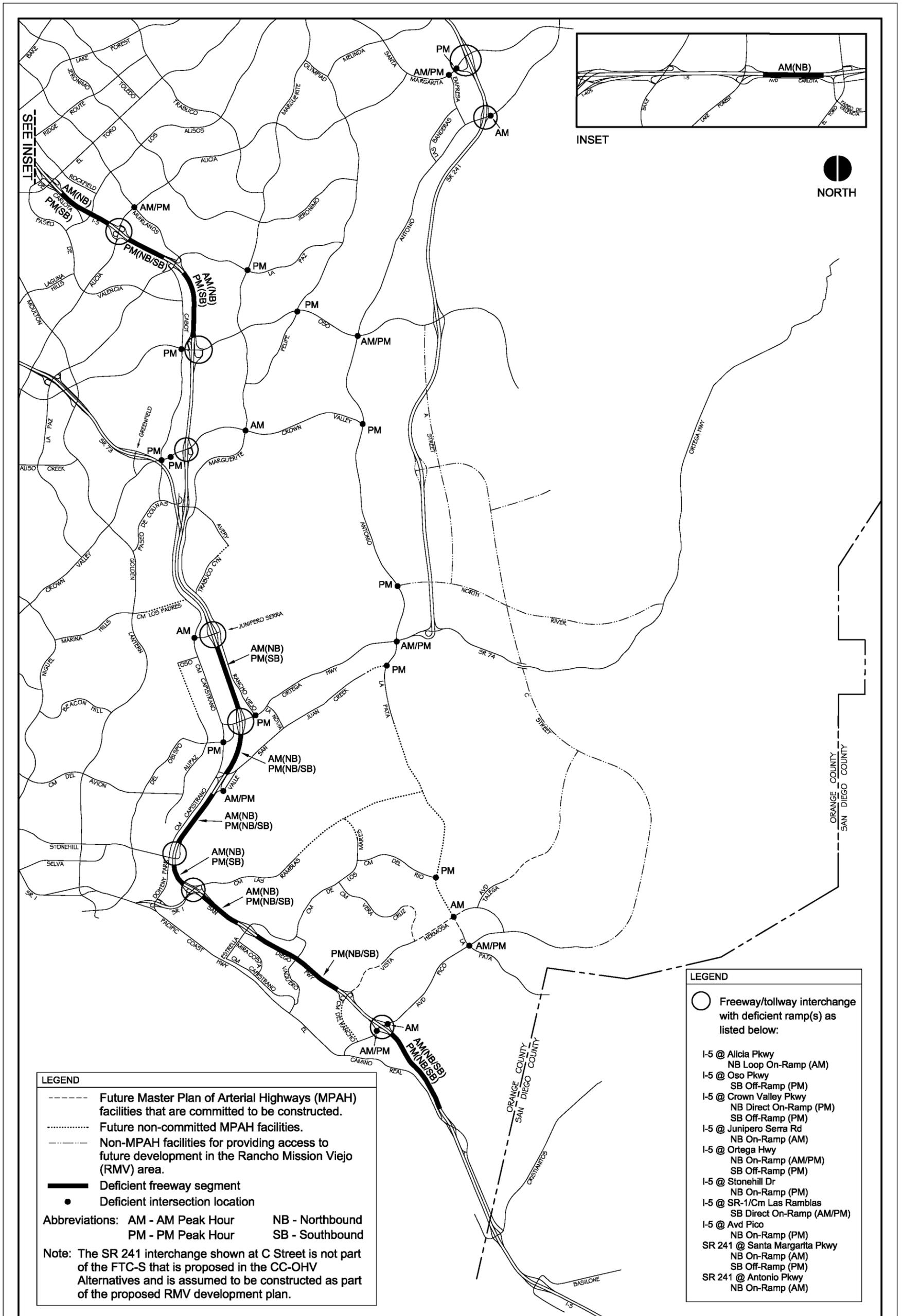
Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Average intersection capacity utilization (ICU) value or ramp volume/capacity (V/C) ratio for the scenario(s) and peak hour(s) impacted at each location.



2025 Peak Hour Deficiencies - CC-OHV-Initial and Ultimate Alternatives
 (Committed Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - CC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

Table 4-22
 SUMMARY OF 2025 DEFICIENCIES UNDER THE
 CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	36 (5 less than the No Action Alt.)	12 (same as the No Action Alt.)	15 (2 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	24 (3 less than the No Action Alt.)	11 (same as the No Action Alt.)	13 (1 less than the No Action Alt.)

The CC-OHV Alternatives moderately reduce the number of deficient arterial intersections compared to the No Action Alternative, and the number of deficient I-5 mainline segments and freeway/tollway ramps is similar between the CC-OHV Alternatives and the No Action Alternative.

Table 4-23 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the CC-OHV Alternatives scenarios and the No Action Alternative scenarios. The CC-OHV Alternatives are forecast to have a beneficial effect at five arterial intersections and one tollway ramp. Direct adverse impacts occur at 11 arterial intersections under the CC-OHV Alternatives, and no indirect adverse impacts are forecast to occur.

Mitigation measures that address the direct adverse impacts of the CC-OHV Alternatives are presented in Section 5.0 (Mitigation Measures). The direct adverse impacts have a nexus to the roadway facilities that are constructed in the CC-OHV Alternatives and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified in Section 5.0 to mitigate the direct adverse impacts of the CC-OHV Alternatives. Table 4-24 summarizes the share of traffic that is attributed to the CC-OHV Alternatives at each of the locations where direct adverse impacts occur.

4.2.3.13 A7C-Initial and Ultimate Alternatives

The Alignment 7 Corridor – Complete (A7C) – Initial and Ultimate Alternatives were analyzed under two scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Table 4-23

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
Antonio Pkwy & Crown Valley Pkwy	County of Orange	PM	3
Antonio Pkwy-La Pata Ave & Ortega Hwy	County of Orange	PM	1,3
Avd La Pata & Avd Pico	San Clemente	AM/PM	3
I-5 southbound ramps & Avd Pico	San Clemente	PM	3
I-5 northbound ramps & Ortega Hwy	San Juan Capistrano	AM/PM	1
I-5 southbound ramps & Ortega Hwy	San Juan Capistrano	PM	1
La Novia Ave & Ortega Hwy	San Juan Capistrano	PM	1
La Novia Ave & San Juan Creek Rd	San Juan Capistrano	AM	1
La Pata Ave & San Juan Creek Rd	County of Orange	PM	3
Rancho Viejo Rd & Ortega Hwy	San Juan Capistrano	PM	1
Valle Rd & La Novia Ave/I-5 northbound ramps	San Juan Capistrano	AM/PM	3
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
None	--	--	--
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
None	--	--	--

Table 4-23 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
INDIRECT ADVERSE IMPACTS (b) (cont)			
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
None	--	--	--

(a) The assumptions for each scenario are as follows:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

Table 4-24

SUMMARY OF 2025 TRAFFIC SHARE PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS
OF THE CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025 No Action Alt. V/C (b) (X)	2025 CC-OHV Alt. V/C (b) (Y)	CC-OHV Alt. V/C Share (Y-X)	CC-OHV Alt. V/C Share Percentage (% of Y)
ARTERIAL INTERSECTIONS						
Antonio Pkwy & Crown Valley Pkwy	3	PM	1.01	1.04	0.03	3%
Antonio Pkwy-La Pata Ave & Ortega Hwy	1,3	PM	1.23	1.42	0.19	13%
Avd La Pata & Avd Pico	3	AM/PM	0.98	1.05	0.07	7%
I-5 southbound ramps & Avd Pico	3	PM	1.04	1.08	0.04	4%
I-5 northbound ramps & Ortega Hwy	1	AM/PM	1.06	1.09	0.03	3%
I-5 southbound ramps & Ortega Hwy	1	PM	1.01	1.05	0.04	4%
La Novia Ave & Ortega Hwy	1	PM	0.97	1.03	0.06	6%
La Novia Ave & San Juan Creek Rd	1	AM	1.16	1.20	0.04	3%
La Pata Ave & San Juan Creek Rd	3	PM	0.91	0.96	0.05	5%
Rancho Viejo Rd & Ortega Hwy	1	PM	0.94	0.96	0.02	2%
Valle & La Novia/I-5 northbound ramps	3	AM/PM	0.91	0.95	0.04	4%

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Average intersection capacity utilization (ICU) value for the scenario(s) and peak hour(s) impacted at each location.

Figures 4-24 and 4-25 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in the two A7C Alternatives analysis scenarios. Table 4-25 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the A7C Alternatives.

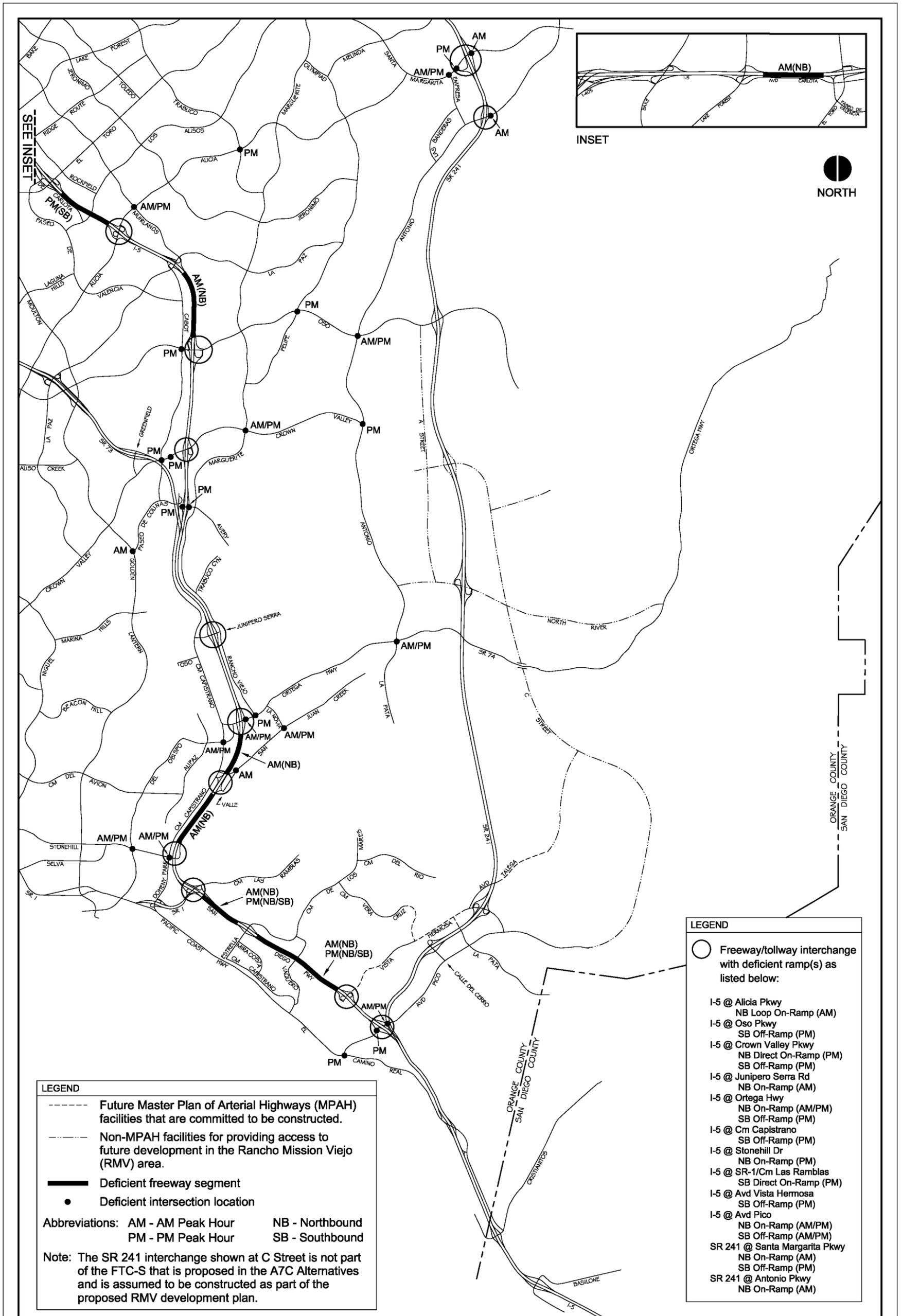
Table 4-25
 SUMMARY OF 2025 DEFICIENCIES UNDER THE
 A7C-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	27 (14 less than the No Action Alt.)	7 (5 less than the No Action Alt.)	16 (1 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	15 (12 less than the No Action Alt.)	5 (6 less than the No Action Alt.)	15 (1 more than the No Action Alt.)

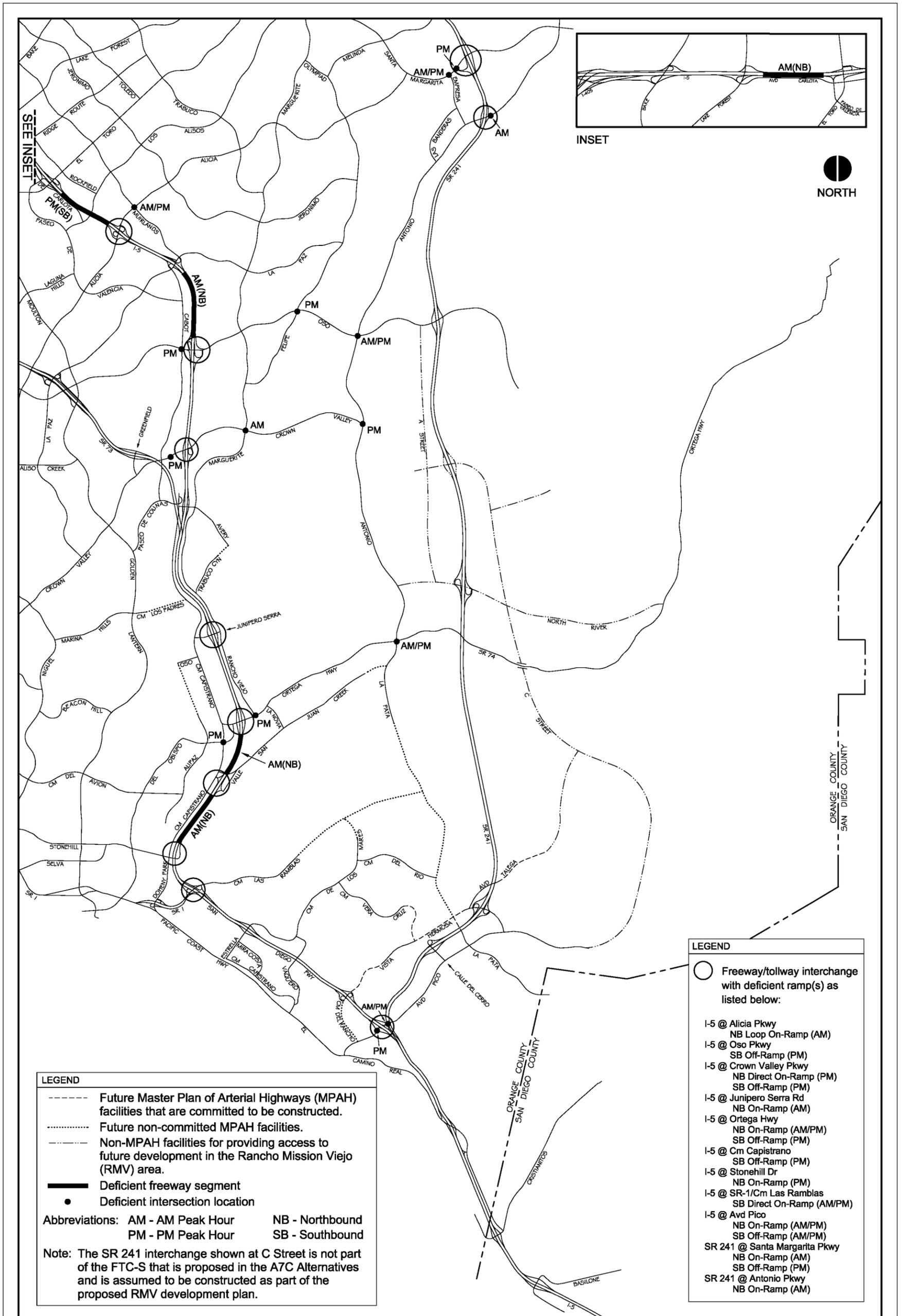
The A7C Alternatives result in substantially fewer arterial intersection and I-5 mainline deficiencies compared to the No Action Alternative. The number of deficient freeway/tollway ramps is similar for the A7C Alternatives and the No Action Alternative because of direct adverse impacts that occur at the I-5/Avenida Pico interchange and indirect adverse impacts that occur at various I-5 ramps under the A7C Alternatives. The indirect impacts occur because the FTC-S diverts traffic from I-5 under the A7C Alternatives, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp intersections serving I-5. It is this additional traffic that causes indirect adverse impacts to occur under the A7C Alternatives.

Table 4-26 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the A7C Alternatives scenarios and the No Action Alternative scenarios. The A7C Alternatives are forecast to have a beneficial effect at a substantial number of locations, including I-5 mainline segments, arterial intersections and I-5 ramps. Under the A7C Alternatives, direct adverse impacts are forecast to occur at two I-5/Avenida Pico interchange ramps and one I-5/Avenida Pico ramp intersection. Indirect adverse impacts are forecast to occur at four I-5 ramps and one I-5 ramp intersection under the A7C Alternatives.

Mitigation measures that address the direct and indirect adverse impacts of the A7C Alternatives are presented in Section 5.0 (Mitigation Measures). The direct adverse impacts have a nexus to the roadway facilities that are constructed in the A7C Alternatives and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified in Section 5.0 to mitigate the direct adverse impacts of the A7C Alternatives. Table 4-27



2025 Peak Hour Deficiencies - A7C-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - A7C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

Table 4-26

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 A7C-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Antonio Pkwy & North River Rd	County	PM	3
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Avd La Pata & Avd Pico	San Clemente	AM/PM	3
Avd La Pata & Avd Vista Hermosa	San Clemente	AM	1,3
Avd La Pata & Cm del Rio	San Clemente	PM	3
Cabot Rd & Crown Valley Pkwy	Laguna Niguel	PM	3
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM/PM	1,3
Cm Vera Cruz & Avd Vista Hermosa	San Clemente	AM/PM	1
La Novia Ave & Ortega Hwy	San Juan Capistrano	PM	1
La Pata Ave & San Juan Creek Rd	County	PM	3
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	1
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1,3
Pacific Coast Hwy & Cm Capistrano	San Clemente/Dana Point	PM	1
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	1,3
I-5 (Avd Vista Hermosa to Avd Pico)	Caltrans/San Clemente	AM/PM	1
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	PM	3
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 (SR 1/Cm Las Ramblas to Cm Estrella)	Caltrans/Dana Point	AM/PM	3
I-5 (Stonehill Dr to SR 1/Cm Las Ramblas)	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway/Tollway Ramps			
I-5 at Cm Estrella (southbound off-ramp)	Caltrans/San Clemente/ Dana Point	PM	1
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	Caltrans/San Clemente	AM	1
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	1
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3

Table 4-26 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 A7C-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Avd Pico	San Clemente	AM/PM	1,3
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	AM/PM	1,3
I-5 at Avd Pico (southbound off-ramp)	Caltrans/San Clemente	AM/PM	1,3
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Ortega Hwy	San Juan Capistrano	AM/PM	1
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Cm Capistrano (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1,3
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 at Ortega Hwy (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3

(a) The assumptions for each scenario are as follows:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

Table 4-27

SUMMARY OF 2025 TRAFFIC SHARE PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS
OF THE A7C-INITIAL AND ULTIMATE ALTERNATIVES

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025 No Action Alt. V/C (b) (X)	2025 A7C Alt. V/C (b) (Y)	A7C Alt. V/C Share (Y-X)	A7C Alt. V/C Share Percentage (% of Y)
ARTERIAL INTERSECTIONS						
I-5 northbound ramps & Avd Pico	1,3	AM/PM	0.87	1.08	0.21	19%
FREEWAY RAMPS						
I-5 at Avd Pico (northbound on-ramp)	1,3	AM/PM	0.97	2.28	1.31	57%
I-5 at Avd Pico (southbound off-ramp)	1,3	AM/PM	0.58	1.43	0.85	59%

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Average intersection capacity utilization (ICU) value or ramp volume/capacity (V/C) ratio for the scenario(s) and peak hour(s) impacted at each location.

summarizes the share of traffic that is attributed to the A7C Alternatives at each of the locations where direct adverse impacts occur.

At the locations where indirect adverse impacts occur, there is no nexus between the increase in traffic that is forecast under the A7C Alternatives scenarios compared to the No Action Alternative scenarios and the roadway facilities that are constructed in the A7C Alternatives. Therefore, there is no responsibility for the A7C Alternatives to participate in the implementation of needed improvements at the locations where indirect adverse impacts occur.

4.2.3.14 A7C-7SV-Initial and Ultimate Alternatives

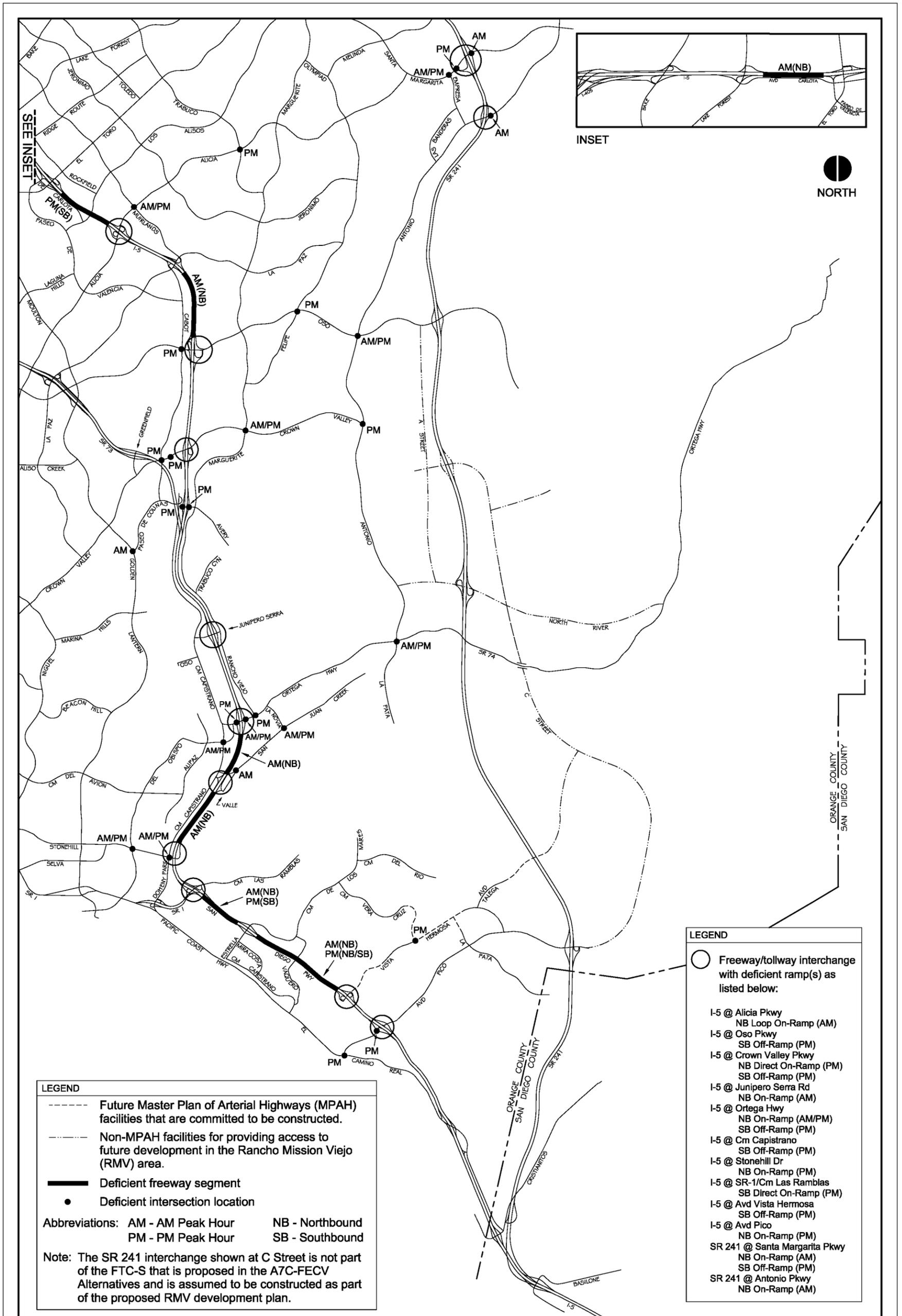
The Alignment 7 Corridor – 7 Swing Variation (A7C-7SV) – Initial and Ultimate Alternatives provide essentially the same connections to the local circulation system as the A7C Alternatives. Therefore, long-range traffic conditions based on the A7C-7SV Alternatives were not specifically analyzed because the future traffic conditions and the beneficial effects and adverse impacts on the circulation system under the A7C-7SV Alternatives are essentially the same as the A7C Alternatives results discussed previously in Section 4.2.3.13.

4.2.3.15 A7C-FECV-Initial and Ultimate Alternatives

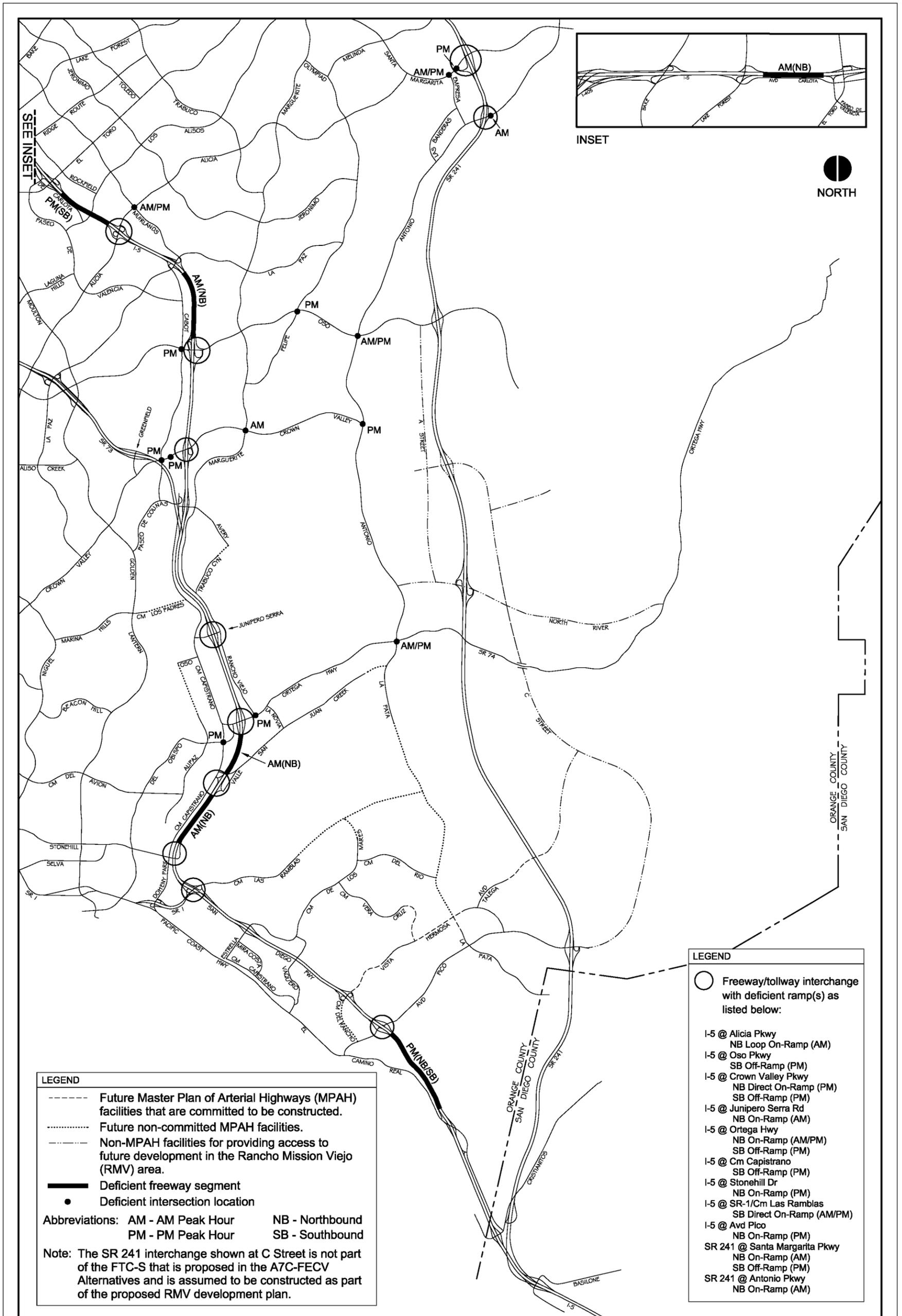
The Alignment 7 Corridor – Far East Crossover Variation (A7C-FECV) – Initial and Ultimate Alternatives were analyzed under three scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

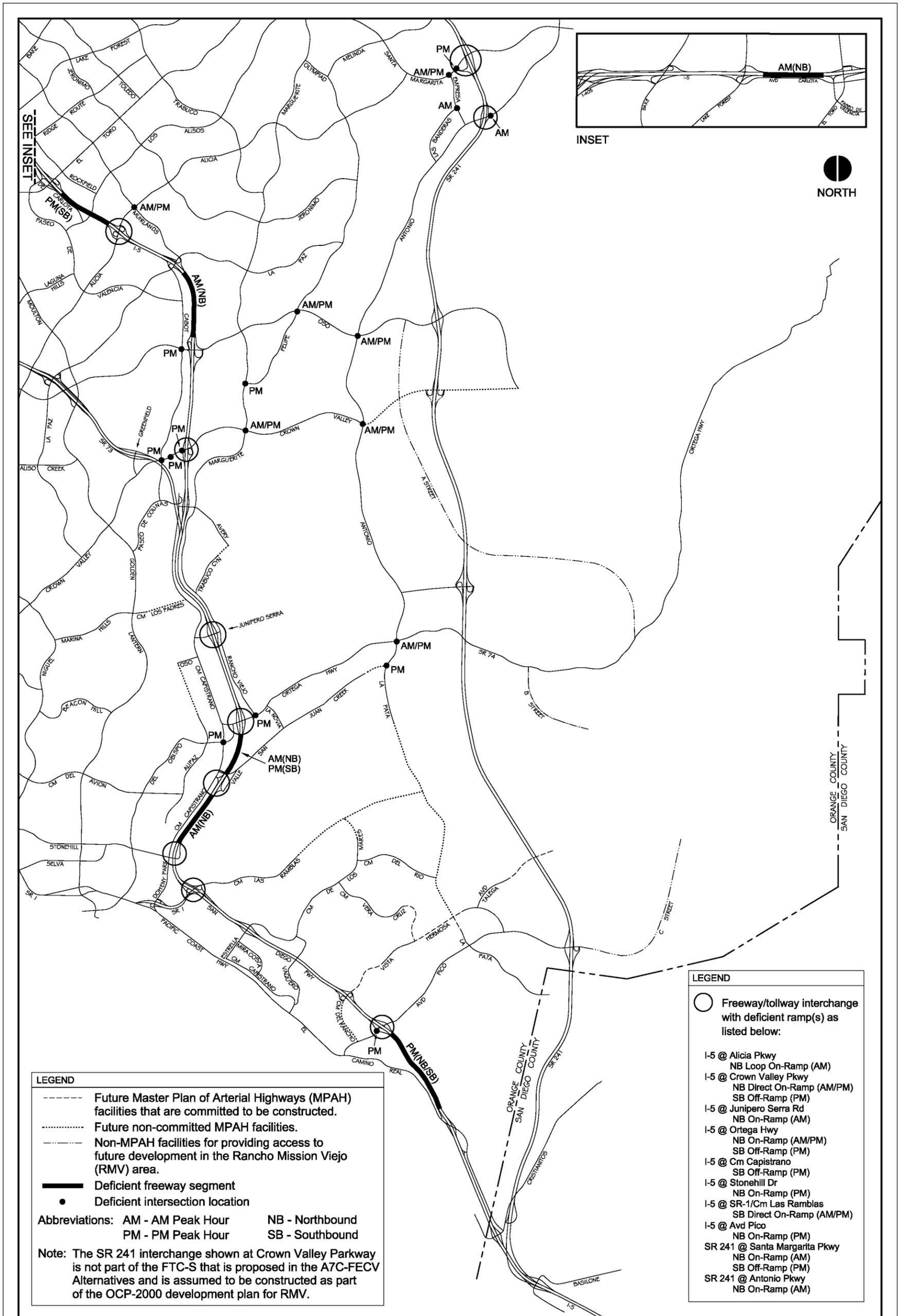
Figures 4-26 through 4-28 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in each of the three A7C-FECV Alternatives analysis scenarios. Table 4-28 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the A7C-FECV Alternatives.



2025 Peak Hour Deficiencies - A7C-FECV-Initial and Ultimate Alternatives
 (Committed Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - A7C-FECV-Initial and Ultimate Alternatives
 (Buildout Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - A7C-FECV-Initial and Ultimate Alternatives
 (Buildout Circulation System with OCP-2000 for RMV)

Table 4-28

SUMMARY OF 2025 DEFICIENCIES UNDER THE
 A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	28 (13 less than the No Action Alt.)	7 (5 less than the No Action Alt.)	15 (2 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	14 (13 less than the No Action Alt.)	6 (5 less than the No Action Alt.)	14 (same as the No Action Alt.)
Buildout circulation system with OCP-2000 for RMV (Scenario 4)	19 (8 less than the No Action Alt.)	6 (5 less than the No Action Alt.)	13 (3 less than the No Action Alt.)

The A7C-FECV Alternatives result in substantially fewer arterial intersection and I-5 mainline deficiencies compared to the No Action Alternative. The number of deficient freeway/tollway ramps is similar for the A7C-FECV Alternatives and the No Action Alternative because of indirect adverse impacts that occur at various I-5 ramps under the A7C-FECV Alternatives. The indirect impacts occur because the FTC-S diverts traffic from I-5 under the A7C-FECV Alternatives, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp intersections serving I-5. It is this additional traffic that causes indirect adverse impacts to occur under the A7C-FECV Alternatives.

Table 4-29 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the A7C-FECV Alternatives scenarios and the No Action Alternative scenarios. The A7C-FECV Alternatives are forecast to have a beneficial effect at a substantial number of locations, including I-5 mainline segments, arterial intersections and freeway/tollway ramps. No direct adverse impacts are forecast to occur under the A7C-FECV Alternatives. However, indirect adverse impacts are forecast to occur at five I-5 ramps and one I-5 ramp intersection.

Mitigation measures that address the indirect adverse impacts of the A7C-FECV Alternatives are presented in Section 5.0 (Mitigation Measures). At the locations where indirect adverse impacts occur, there is no nexus between the increase in traffic that is forecast under the A7C-FECV Alternatives scenarios compared to the No Action Alternative scenarios and the roadway facilities that are constructed in the A7C-FECV Alternatives. Therefore, there is no responsibility for the A7C-FECV Alternatives to participate in the implementation of needed improvements at the locations where indirect adverse impacts occur.

Table 4-29

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Antonio Pkwy & North River Rd	County	PM	3
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Avd La Pata & Avd Pico	San Clemente	AM/PM	3,4
Avd La Pata & Avd Vista Hermosa	San Clemente	AM/PM	1,3,4
Avd La Pata & Cm del Rio	San Clemente	PM	3,4
Cm Capistrano & I-5 southbound ramps	Caltrans/San Juan Capistrano	PM	4
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM	3,4
I-5 northbound ramps & Avd Pico	Caltrans/San Clemente	AM	1,3,4
I-5 southbound ramps & Avd Pico	Caltrans/San Clemente	AM/PM	3
I-5 southbound ramps & Cm Estrella	Caltrans/San Clemente/ Dana Point	PM	1
I-5 northbound ramps & Oso Pkwy	Caltrans/Mission Viejo	AM	4
La Novia Ave & Ortega Hwy	San Juan Capistrano	PM	1
La Pata Ave & San Juan Creek Rd	County	PM	3
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	1
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1,3
Pacific Coast Hwy & Cm Capistrano	San Clemente/Dana Point	PM	1
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3,4
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	1,3,4
I-5 (Avd Vista Hermosa to Avd Pico)	Caltrans/San Clemente	AM/PM	1
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	AM/PM	3,4
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
I-5 (SR 1/Cm Las Ramblas to Cm Estrella)	Caltrans/Dana Point	AM/PM	3,4
I-5 (Stonehill Dr to SR 1/Cm Las Ramblas)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
Freeway/Tollway Ramps			
I-5 at Cm Estrella (southbound off-ramp)	Caltrans/San Clemente/ Dana Point	PM	1
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	Caltrans/San Clemente	AM	1
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	1

Table 4-29 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b) (cont)			
Freeway/Tollway Ramps (cont)			
SR 241 at Antonio Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	4
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3,4
SR 241 at Oso Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	4
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
None	--	--	--
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
None	--	--	--
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Ortega Hwy	San Juan Capistrano	AM/PM	1
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	PM	1,3,4
I-5 at Cm Capistrano (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1,3,4
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 at Ortega Hwy (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3,4

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

4.2.3.16 A7C-FEC-M-Initial and Ultimate Alternatives

The Alignment 7 Corridor – Far East Crossover – Modified (A7C-FEC-M) – Initial and Ultimate Alternatives provide essentially the same connections to the local circulation system as the A7C-FECV Alternatives. Therefore, long-range traffic conditions based on the A7C-FEC-M Alternatives were not specifically analyzed because the future traffic conditions and the beneficial effects and adverse impacts on the circulation system under the A7C-FEC-M Alternatives are essentially the same as the A7C-FECV Alternatives results discussed earlier in Section 4.2.3.15.

4.2.3.17 A7C-FECV-C-Initial and Ultimate Alternatives

The Alignment 7 Corridor – Far East Crossover (Cristianitos) Variation (A7C-FECV-C) – Initial and Ultimate Alternatives were analyzed under two scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

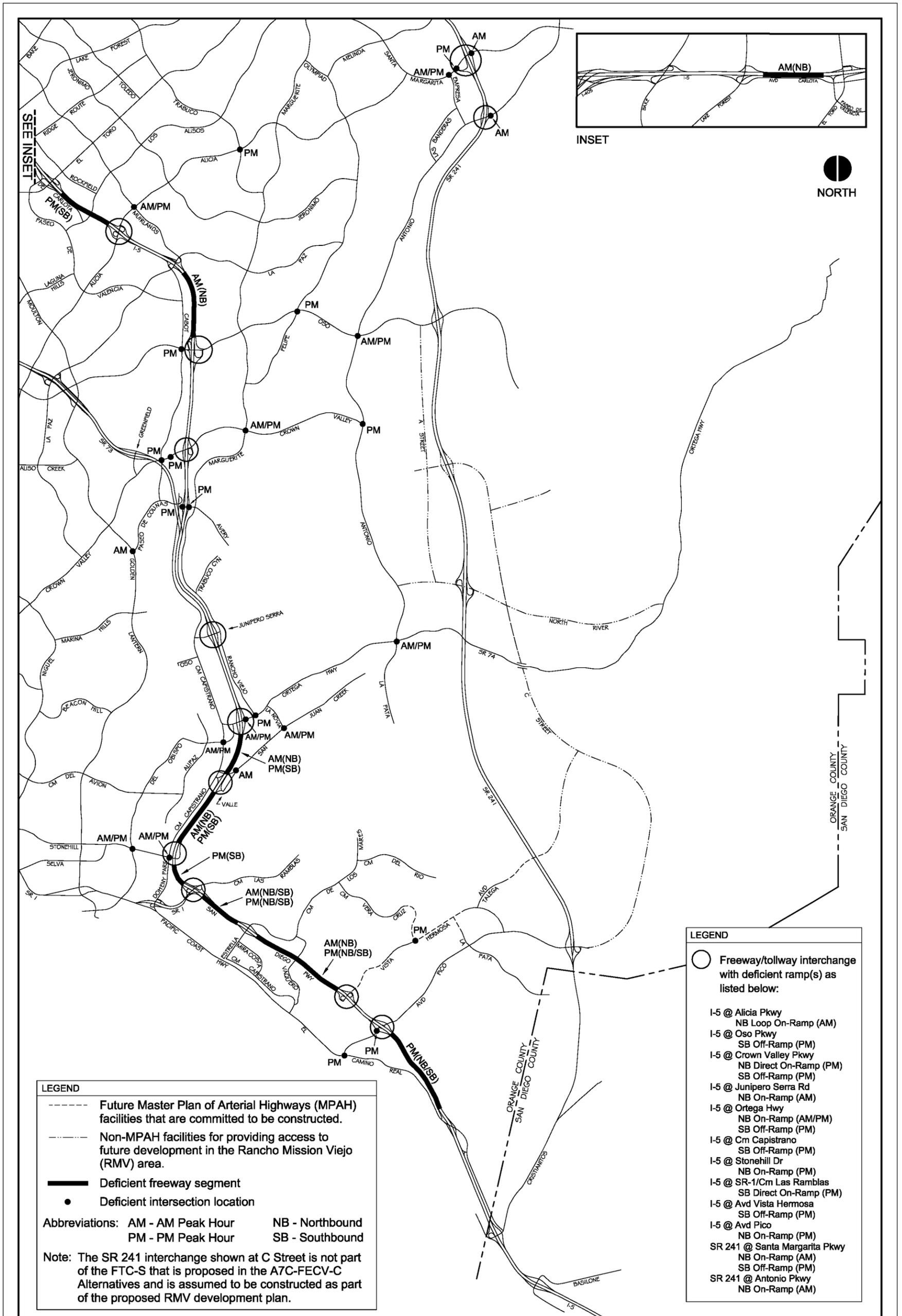
- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Figures 4-29 and 4-30 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in the two A7C-FECV-C Alternatives analysis scenarios. Table 4-30 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario under the A7C-FECV-C Alternatives.

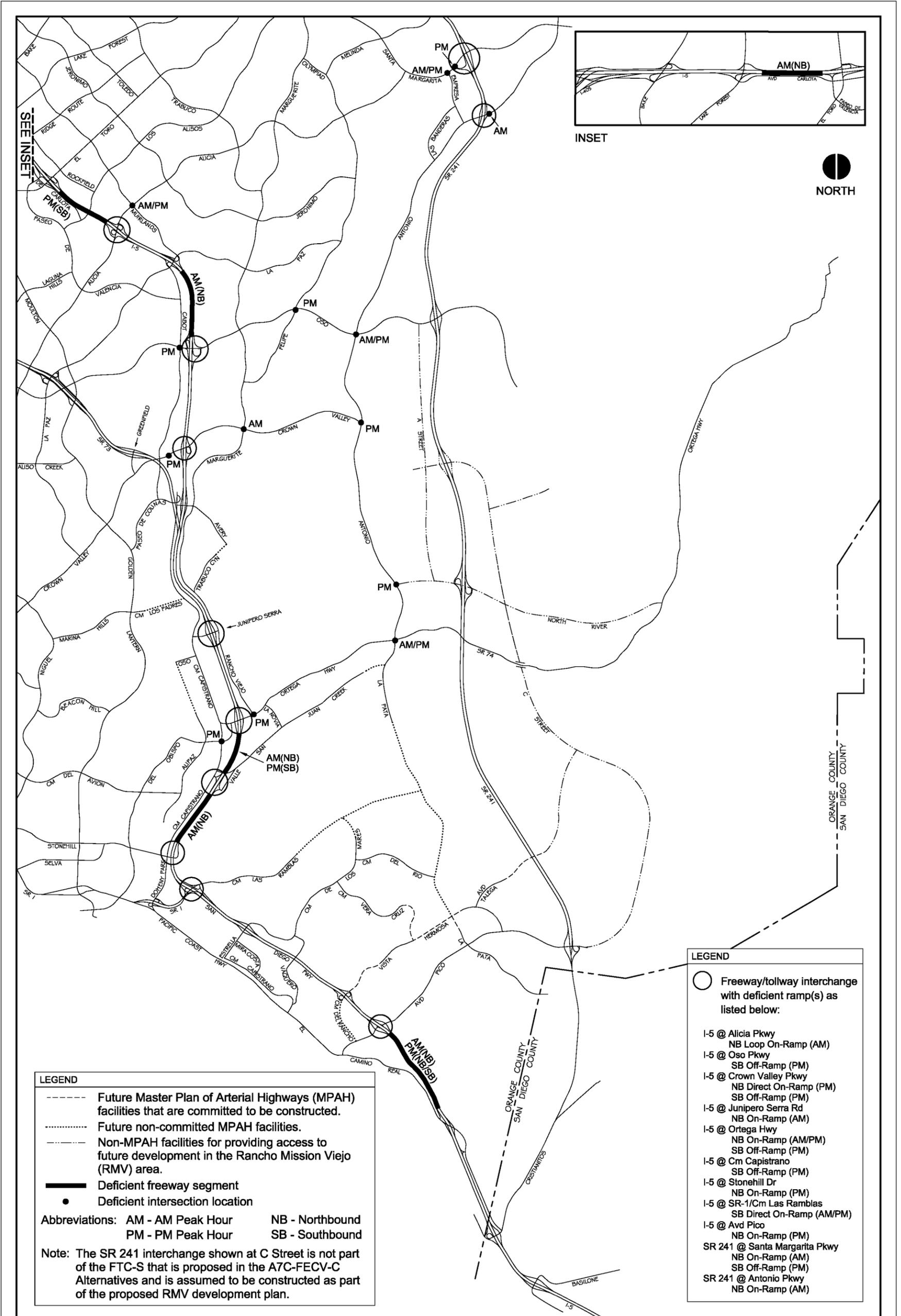
Table 4-30
 SUMMARY OF 2025 DEFICIENCIES UNDER THE
 A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Analysis Scenario	Number of Deficient Facilities		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	27 (14 less than the No Action Alt.)	9 (3 less than the No Action Alt.)	15 (2 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	14 (13 less than the No Action Alt.)	6 (5 less than the No Action Alt.)	14 (same as the No Action Alt.)

The A7C-FECV-C Alternatives result in substantially fewer arterial intersection and I-5 mainline deficiencies compared to the No Action Alternative. The number of deficient freeway/tollway



2025 Peak Hour Deficiencies - A7C-FECV-C-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - A7C-FECV-C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

ramps is similar for the A7C-FECV-C Alternatives and the No Action Alternative because of indirect adverse impacts that occur at various I-5 ramps under the A7C-FECV-C Alternatives. The indirect impacts occur because the FTC-S diverts traffic from I-5 under the A7C-FECV-C Alternatives, thereby reducing the level of congestion on I-5. As a result, vehicle traffic that may otherwise avoid I-5 now chooses to use I-5, resulting in additional traffic at some of the ramps and ramp intersections serving I-5. It is this additional traffic that causes indirect adverse impacts to occur under the A7C-FECV-C Alternatives.

Table 4-31 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the A7C-FECV-C Alternatives scenarios and the No Action Alternative scenarios. The A7C-FECV-C Alternatives are forecast to have a beneficial effect at a substantial number of locations, including I-5 mainline segments, arterial intersections and I-5 ramps. No direct adverse impacts are forecast to occur under the A7C-FECV-C Alternatives. However, indirect adverse impacts are forecast to occur at four I-5 ramps and one I-5 ramp intersection.

Mitigation measures that address the indirect adverse impacts of the A7C-FECV-C Alternatives are presented in Section 5.0 (Mitigation Measures). At the locations where indirect adverse impacts occur, there is no nexus between the increase in traffic that is forecast under the A7C-FECV-C Alternatives scenarios compared to the No Action Alternative scenarios and the roadway facilities that are constructed in the A7C-FECV-C Alternatives. Therefore, there is no responsibility for the A7C-FECV-C Alternatives to participate in the implementation of needed improvements at the locations where indirect adverse impacts occur.

4.2.3.18 A7C-FECV-AF-Initial and Ultimate Alternatives

The Alignment 7 Corridor – Far East Crossover (Agricultural Fields) Variation (A7C-FECV-AF) – Initial and Ultimate Alternatives provide essentially the same connections to the local circulation system as the A7C-FECV Alternatives. Therefore, long-range traffic conditions based on the A7C-FECV-AF Alternatives were not specifically analyzed because the future traffic conditions and the beneficial effects and adverse impacts on the circulation system under the A7C-FECV-AF Alternatives are essentially the same as the A7C-FECV Alternatives results discussed earlier in Section 4.2.3.15.

4.2.3.19 A7C-OHV-Initial and Ultimate Alternatives

The Alignment 7 Corridor – Ortega Highway Variation (A7C-OHV) – Initial and Ultimate Alternatives provide essentially the same connections to the local circulation system as the CC-OHV Alternatives. Therefore, long-range traffic conditions based on the A7C-OHV Alternatives were not specifically analyzed because the future traffic conditions and the beneficial effects and adverse impacts on the circulation system under the A7C-OHV Alternatives are essentially the same as the CC-OHV Alternatives results discussed earlier in Section 4.2.3.12.

4.2.3.20 A7C-ALPV-Initial and Ultimate Alternatives

The Alignment 7 Corridor – Avenida La Pata Variation (A7C-ALPV) – Initial and Ultimate

Table 4-31

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	1,3
Avd La Pata & Avd Pico	San Clemente	AM/PM	3
Avd La Pata & Avd Vista Hermosa	San Clemente	AM	1,3
Avd La Pata & Cm del Rio	San Clemente	PM	3
Cabot Rd & Crown Valley Pkwy	Laguna Niguel	PM	3
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM/PM	1,3
I-5 northbound ramps & Avd Pico	Caltrans/San Clemente	AM	1,3
I-5 southbound ramps & Avd Pico	Caltrans/San Clemente	AM/PM	3
I-5 southbound ramps & Cm Estrella	Caltrans/San Clemente/ Dana Point	PM	1
La Novia Ave & Ortega Hwy	San Juan Capistrano	PM	1
La Pata Ave & San Juan Creek Rd	County	PM	3
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	1
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1,3
Pacific Coast Hwy & Cm Capistrano	San Clemente/Dana Point	PM	1
SR 241 northbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	AM	1,3
SR 241 southbound ramps & Oso Pkwy	Caltrans/ Rancho Santa Margarita	PM	1,3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	AM/PM	1,3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	1,3
I-5 (Avd Vista Hermosa to Avd Pico)	Caltrans/San Clemente	AM/PM	1
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	PM	3
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	1,3
I-5 (SR 1/Cm Las Ramblas to Cm Estrella)	Caltrans/Dana Point	AM/PM	3
I-5 (Stonehill Dr to SR 1/Cm Las Ramblas)	Caltrans/San Juan Capistrano	AM/PM	3
Freeway/Tollway Ramps			
I-5 at Cm Estrella (southbound off-ramp)	Caltrans/San Clemente/ Dana Point	PM	1
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	Caltrans/San Clemente	AM	1
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	1
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3

Table 4-31 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS UNDER THE
 A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
None	--	--	--
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
None	--	--	--
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
I-5 northbound ramps & Ortega Hwy	San Juan Capistrano	AM/PM	1
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	PM	1,3
I-5 at Cm Capistrano (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1,3
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

Alternatives provide essentially the same connections to the local circulation system as the CC-ALPV Alternatives. Therefore, long-range traffic conditions based on the A7C-ALPV Alternatives were not specifically analyzed because the future traffic conditions and the beneficial effects and adverse impacts on the circulation system under the A7C-ALPV Alternatives are essentially the same as the CC-ALPV Alternatives results discussed earlier in Section 4.2.3.11.

4.2.3.21 AIO Alternative

The Arterial Improvements Only (AIO) Alternative was analyzed under two scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

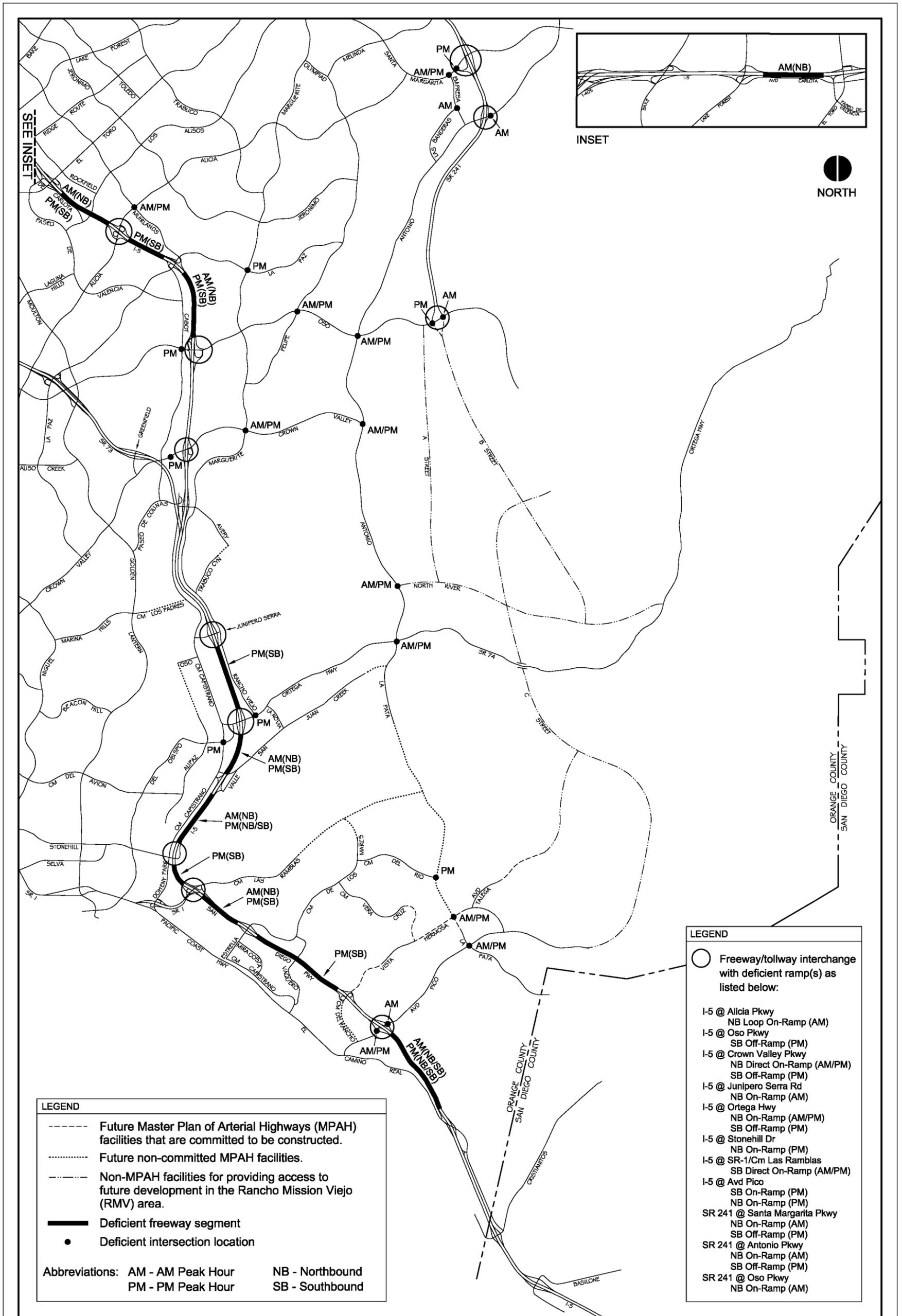
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Figures 4-31 and 4-32 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in the two AIO Alternative analysis scenarios. Table 4-32 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario.

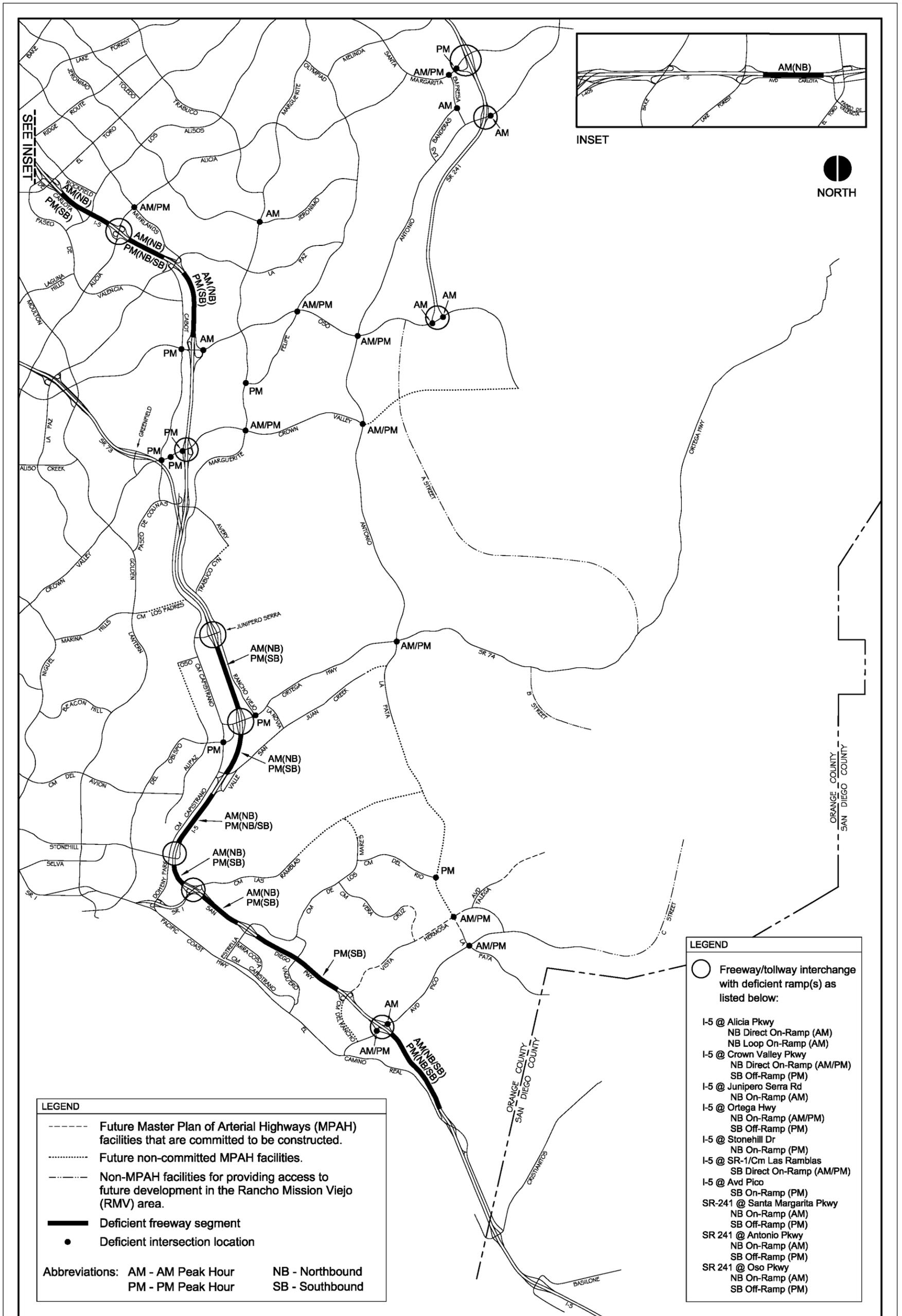
Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/ Tollway Ramps
Buildout circulation system with proposed RMV plan (Scenario 3)	23 (4 less than the No Action Alt.)	11 (same as the No Action Alt.)	16 (2 more than the No Action Alt.)
Buildout circulation system with OCP-2000 for RMV (Scenario 4)	26 (1 less than the No Action Alt.)	11 (same as the No Action Alt.)	16 (same as the No Action Alt.)

The AIO Alternative produces minor differences in the number of deficient arterial intersections, I-5 mainline segments and freeway/tollway ramps compared to the No Action Alternative.

Table 4-33 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the AIO Alternative scenarios and the No Action Alternative scenarios. The AIO Alternative is forecast to have a beneficial effect at five arterial intersections and one I-5 ramp. Direct adverse impacts are forecast to occur under the AIO Alternative at a number of



2025 Peak Hour Deficiencies - AIO Alternative
(Buildout Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - AIO Alternative
(Buildout Circulation System with OCP-2000 for RMV)

Table 4-33

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS
 UNDER THE AIO ALTERNATIVE SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Cabot Rd & Crown Valley Pkwy	Laguna Niguel	PM	3
Cm Capistrano & I-5 southbound ramps	Caltrans/San Juan Capistrano	PM	4
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM	3,4
La Pata Ave & San Juan Creek Rd	County of Orange	PM	3,4
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	PM	3
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	PM	4
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
Antonio Pkwy & Crown Valley Pkwy	County of Orange	AM/PM	3,4
Antonio Pkwy-La Pata Ave & Ortega Hwy	County of Orange	AM/PM	4
Antonio Pkwy & North River Rd	County of Orange	AM/PM	3
Antonio Pkwy & Oso Pkwy	County of Orange	AM/PM	3,4
Avd Empresa & Avd De Las Banderas	Rancho Santa Margarita	AM	3,4
Avd Empresa & Santa Margarita Pkwy	Rancho Santa Margarita	AM/PM	3,4
Avd La Pata & Avd Pico	San Clemente	AM/PM	3,4
Avd La Pata & Avd Vista Hermosa	San Clemente	AM/PM	3,4
Felipe Rd & Oso Pkwy	Mission Viejo	AM/PM	3,4
I-5 northbound ramps & Avd Pico	San Clemente	AM	3,4
I-5 southbound ramps & Avd Pico	San Clemente	AM/PM	3,4
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	4
SR 241 northbound ramps & Antonio Pkwy	Rancho Santa Margarita	AM	3
SR 241 northbound ramps & Oso Pkwy	Rancho Santa Margarita	AM	3,4
SR 241 southbound ramps & Oso Pkwy	Rancho Santa Margarita	AM	4
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	3,4
I-5 at Crown Valley (northbound direct on-ramp)	Caltrans/Mission Viejo	AM/PM	3
I-5 at Crown Valley (southbound off-ramp)	Caltrans/Mission Viejo	PM	3
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	4
I-5 at Oso Pkwy (southbound off-ramp)	Caltrans/Mission Viejo	PM	3

Table 4-33 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS
 UNDER THE AIO ALTERNATIVE SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
DIRECT ADVERSE IMPACTS (b) (cont)			
Freeway/Tollway Ramps (cont)			
SR 241 at Antonio Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	3
SR 241 at Antonio Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	3,4
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	3,4
SR 241 at Oso Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	4
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
None	--	--	--
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	3,4

(a) The assumptions for each scenario are as follows:

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

intersections along and in the immediate vicinity of Antonio Parkway and Avenida La Pata, including the four locations (Antonio Parkway/Oso Parkway, Antonio Parkway/Crown Valley Parkway, Antonio Parkway-La Pata Avenue/Ortega Highway, and Avenida La Pata/Avenida Pico) where potential grade separations are being considered as part of this Alternative. A number of freeway/tollway ramps and freeway/tollway ramp intersections that lead to and from the Antonio Parkway/Avenida La Pata corridor are also directly impacted by this Alternative. An indirect adverse impact is also forecast to occur at one I-5 ramp under the AIO Alternative.

Mitigation measures that address the direct and indirect adverse impacts of the AIO Alternative are presented in Section 5.0 (Mitigation Measures). The direct adverse impacts have a nexus to the roadway facilities that are constructed in the AIO Alternative and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified in Section 5.0 to mitigate the direct adverse impacts of the AIO Alternative. Table 4-34 summarizes the share of traffic that is attributed to the AIO Alternative at each of the locations where direct adverse impacts occur.

The LOS results summarized here assume intersection improvements that are typical for the type of upgrades proposed on Antonio Parkway and La Pata Avenue in the AIO Alternative (e.g., the addition of through lanes and the provision of dual left-turn lanes and separate right-turn lanes). In addition to evaluating the effectiveness of providing grade separation at the intersection locations mentioned above, the mitigation measures discussion in Section 5.0 also evaluate the effectiveness of adding less typical at-grade intersection improvements (e.g., double right-turn lanes or free right-turn lanes, and triple left-turn lanes) to address the direct adverse impacts of the AIO Alternative.

At the location where an indirect adverse impact occurs, there is no nexus between the increase in traffic that is forecast under the AIO Alternative scenarios compared to the No Action Alternative scenarios and the roadway facilities that are constructed in the AIO Alternative. Therefore, there is no responsibility for the AIO Alternative to participate in the implementation of needed improvements at the location where the indirect adverse impacts occurs.

4.2.3.22 AIP Alternative

The Arterial Improvements Plus HOV and Mixed-Flow Spot Lanes on I-5 (AIP) Alternative was analyzed under two scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Figures 4-33 and 4-34 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in the two AIP Alternative analysis scenarios. Table 4-35 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario.

Table 4-34

SUMMARY OF 2025 TRAFFIC SHARE PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS OF THE AIO ALTERNATIVE

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025 No Action Alt. V/C (b) (X)	2025 AIO Alt. V/C (b) (Y)	AIO Alt. V/C Share (Y-X)	AIO Alt. V/C Share Percentage (% of Y)
ARTERIAL INTERSECTIONS						
Antonio Pkwy & Crown Valley Pkwy	3,4	AM/PM	1.11	1.25	0.14	11%
Antonio Pkwy-La Pata Ave & Ortega Hwy	4	AM/PM	1.60	1.68	0.08	5%
Antonio Pkwy & North River Rd	3	AM/PM	0.92	1.04	0.12	12%
Antonio Pkwy & Oso Pkwy	3,4	AM/PM	1.19	1.42	0.23	16%
Avd Empresa & Avd De Las Banderas	3,4	AM	0.93	0.95	0.02	2%
Avd Empresa & Santa Margarita Pkwy	3,4	AM/PM	1.07	1.11	0.04	4%
Avd La Pata & Avd Pico	3,4	AM/PM	0.98	1.32	0.34	26%
Avd La Pata & Avd Vista Hermosa	3,4	AM/PM	0.97	1.16	0.19	16%
Felipe Rd & Oso Pkwy	3,4	AM/PM	1.07	1.12	0.05	4%
I-5 northbound ramps & Avd Pico	3,4	AM	0.92	1.00	0.08	8%
I-5 southbound ramps & Avd Pico	3,4	AM/PM	1.05	1.20	0.15	13%
Marguerite Pkwy & Jeronimo Rd	4	AM	0.87	0.93	0.06	6%
SR 241 northbound ramps & Antonio Pkwy	3	AM	1.21	1.25	0.04	3%
SR 241 northbound ramps & Oso Pkwy	3,4	AM	1.64	1.91	0.27	14%
SR 241 southbound ramps & Oso Pkwy	4	AM	0.82	0.99	0.17	17%
FREEWAY/TOLLWAY RAMPS						
I-5 at Avd Pico (southbound on-ramp)	3,4	PM	0.91	1.17	0.26	22%
I-5 at Crown Valley (northbound on-ramp)	3	AM/PM	1.02	1.08	0.06	6%
I-5 at Crown Valley (southbound off-ramp)	3	PM	1.35	1.42	0.07	5%
I-5 at Ortega Hwy (northbound on-ramp)	4	PM	1.30	1.37	0.07	5%
I-5 at Oso Pkwy (southbound off-ramp)	3	PM	1.11	1.13	0.02	2%
SR 241 at Antonio (northbound on-ramp)	3	AM	1.59	1.66	0.07	4%
SR 241 at Antonio (southbound off-ramp)	3,4	PM	1.02	1.09	0.07	6%

Table 4-34 (cont)
SUMMARY OF 2025 TRAFFIC SHARES PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS OF THE AIO ALTERNATIVE

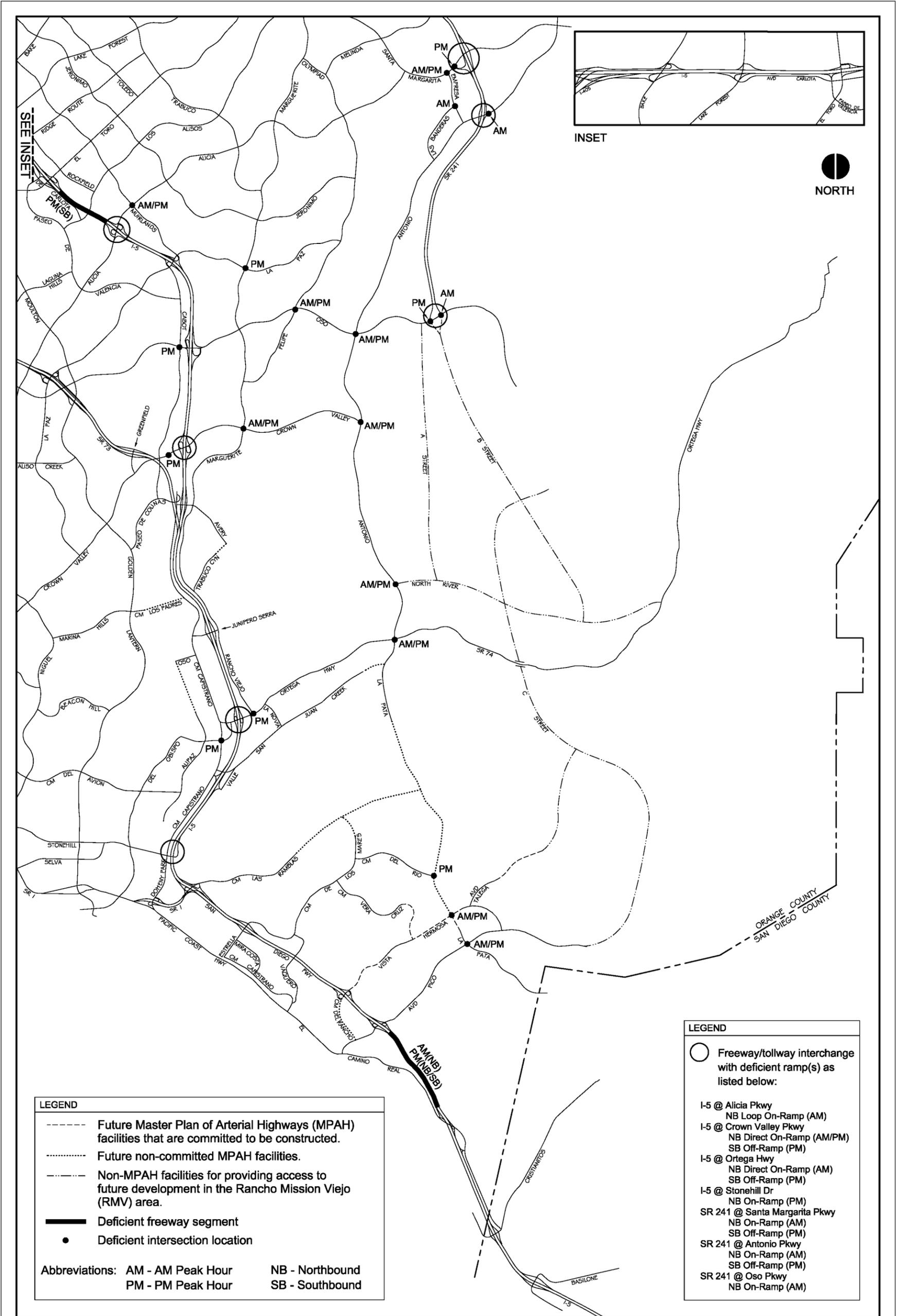
Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025		2025 AIO Alt. V/C (b)	AIO Alt. V/C Share (Y-X)	AIO Alt. V/C Share Percentage (% of Y)
			No Action Alt. V/C (b)	(X)			
FREEWAY/TOLLWAY RAMPS (cont)							
SR 241 at Oso Pkwy (northbound on-ramp)	3,4	AM	1.51	1.84	0.33	18%	
SR 241 at Oso Pkwy (southbound off-ramp)	4	PM	1.30	1.65	0.35	21%	

(a) The assumptions for each scenario are as follows:

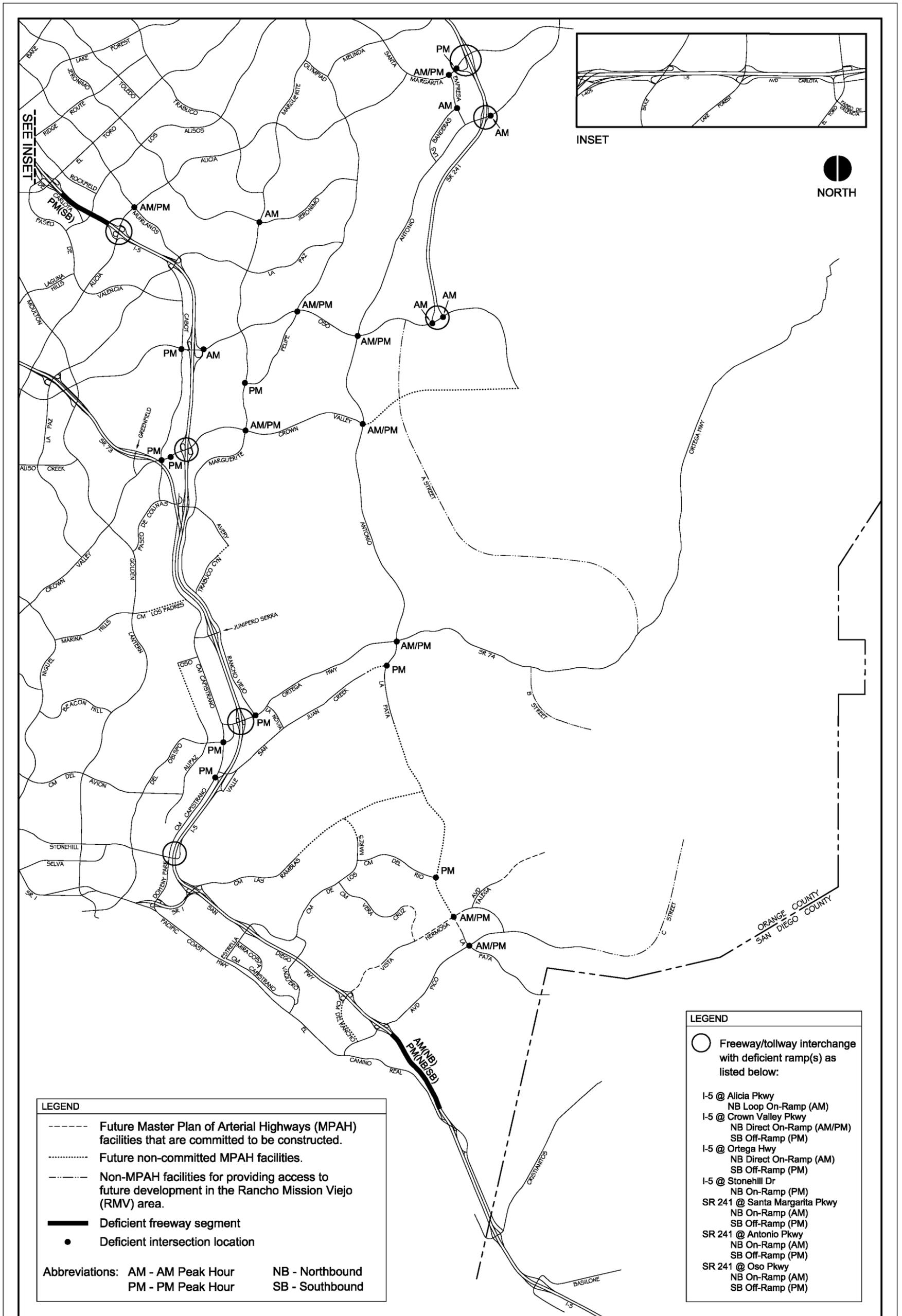
Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Average intersection capacity utilization (ICU) value or ramp volume/capacity (V/C) ratio for the scenario(s) and peak hour(s) impacted at each location.



2025 Peak Hour Deficiencies - AIP Alternative
 (Buildout Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - AIP Alternative
 (Buildout Circulation System with OCP-2000 for RMV)

Table 4-35
 SUMMARY OF 2025 DEFICIENCIES UNDER THE AIP ALTERNATIVE SCENARIOS

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/Tollway Ramps
Buildout circulation system with proposed RMV plan (Scenario 3)	21 (6 less than the No Action Alt.)	2 (9 less than the No Action Alt.)	11 (3 less than the No Action Alt.)
Buildout circulation system with OCP-2000 for RMV (Scenario 4)	25 (2 less than the No Action Alt.)	2 (9 less than the No Action Alt.)	12 (4 less than the No Action Alt.)

The AIP Alternative results in substantially fewer I-5 mainline deficiencies compared to the No Action Alternative and moderately fewer arterial intersection and freeway/tollway ramp deficiencies.

Table 4-36 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the AIP Alternative scenarios and the No Action Alternative scenarios. The AIP Alternative is forecast to have a beneficial effect at a number of locations, primarily I-5 mainline segments, ramps, and ramp intersections where physical improvements are constructed as part of the AIP Alternative. Similar to the AIO Alternative, direct adverse impacts are forecast to occur under the AIP Alternative at a number of intersections along and in the immediate vicinity of Antonio Parkway and Avenida La Pata, including the four locations (Antonio Parkway/Oso Parkway, Antonio Parkway/Crown Valley Parkway, Antonio Parkway-La Pata Avenue/Ortega Highway, and Avenida La Pata/Avenida Pico) where potential grade separations are being considered as part of the AIO and AIP Alternatives. A number of freeway/tollway ramps and freeway/tollway ramp intersections that lead to and from the Antonio Parkway/Avenida La Pata corridor are also directly impacted by the AIP Alternative. However there are fewer impacts compared to the AIO Alternative due to the I-5 interchange improvements that are included in the AIP Alternative (e.g., the reconfiguration of the Ortega Highway and Avenida Pico interchanges). No indirect adverse impacts are forecast to occur under the AIP Alternative.

Mitigation measures that address the direct adverse impacts of the AIP Alternative are presented in Section 5.0 (Mitigation Measures). The direct adverse impacts have a nexus to the roadway facilities that are constructed in the AIP Alternative and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified in Section 5.0 to mitigate the direct adverse impacts of the AIP Alternative. Table 4-37 summarizes the share of traffic that is attributed to the AIP Alternative at each of the locations where direct adverse impacts occur.

Table 4-36

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS
UNDER THE AIP ALTERNATIVE SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Cabot Rd & Crown Valley Pkwy	Laguna Niguel	PM	3
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM	3,4
I-5 northbound ramps & Avd Pico	Caltrans/San Clemente	AM	3,4
I-5 southbound ramps & Avd Pico	Caltrans/San Clemente	AM/PM	3,4
I-5 southbound ramps & Crown Valley Pkwy	Caltrans/Mission Viejo	PM	4
La Pata Ave & San Juan Creek Rd	County of Orange	PM	3
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	PM	3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	3,4
I-5 (Cm Capistrano to Stonehill Dr)	Caltrans/San Juan Capistrano	AM/PM	3,4
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	AM/PM	3,4
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	3,4
I-5 (La Paz Rd to Oso Pkwy)	Caltrans/Mission Viejo	AM/PM	3,4
I-5 (Ortega Hwy to Cm Capistrano)	Caltrans/San Juan Capistrano	AM/PM	3,4
I-5 (SR 1/Cm Las Ramblas to Cm Estrella)	Caltrans/Dana Point	AM/PM	3,4
I-5 (Stonehill Dr to SR 1/Cm Las Ramblas)	Caltrans/San Juan Capistrano	AM/PM	3,4
Freeway/Tollway Ramps			
I-5 at Alicia Pkwy (northbound direct on-ramp)	Caltrans/Mission Viejo	AM	4
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	PM	3,4
I-5 at Junipero Serra Rd (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	3,4
I-5 at Oso Pkwy (southbound off-ramp)	Caltrans/Mission Viejo	PM	3
I-5 at SR-1/Cm Las Ramblas (southbound direct on-ramp)	Caltrans/Dana Point	AM/PM	3,4
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
Antonio Pkwy & Crown Valley Pkwy	County of Orange	AM/PM	3,4
Antonio Pkwy-La Pata Ave & Ortega Hwy	County of Orange	AM/PM	3,4
Antonio Pkwy & North River Rd	County of Orange	AM/PM	3
Antonio Pkwy & Oso Pkwy	County of Orange	AM/PM	3,4
Avd Empresa & Avd De Las Banderas	Rancho Santa Margarita	AM	3
Avd Empresa & Santa Margarita Pkwy	Rancho Santa Margarita	AM/PM	3,4
Avd La Pata & Avd Pico	San Clemente	AM/PM	3,4
Avd La Pata & Avd Vista Hermosa	San Clemente	AM/PM	3,4

Table 4-36 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS
 UNDER THE AIP ALTERNATIVE SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
DIRECT ADVERSE IMPACTS (b) (cont)			
Arterial Intersections (cont)			
Felipe Rd & Oso Pkwy	Mission Viejo	AM/PM	3,4
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	4
SR 241 northbound ramps & Antonio Pkwy	Rancho Santa Margarita	AM	3
SR 241 northbound ramps & Oso Pkwy	Rancho Santa Margarita	AM	3,4
SR 241 southbound ramps & Oso Pkwy	Rancho Santa Margarita	AM	4
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Crown Valley (northbound direct on-ramp)	Caltrans/Mission Viejo	AM/PM	3
I-5 at Crown Valley (southbound off-ramp)	Caltrans/Mission Viejo	PM	3
I-5 at Ortega Hwy (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	3,4
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	3,4
SR 241 at Antonio Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	3
SR 241 at Antonio Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	3,4
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	3,4
SR 241 at Oso Pkwy (southbound off-ramp)	Caltrans/ Rancho Santa Margarita	PM	4
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
None	--	--	--
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
None	--	--	--

(a) The assumptions for each scenario are as follows:

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

Table 4-37

SUMMARY OF 2025 TRAFFIC SHARE PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS OF THE AIP ALTERNATIVE

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025 No Action Alt. V/C (b) (X)	2025 AIP Alt. V/C (b) (Y)	AIP Alt. V/C Share (Y-X)	AIP Alt. V/C Share Percentage (% of Y)
ARTERIAL INTERSECTIONS						
Antonio Pkwy & Crown Valley Pkwy	3,4	AM/PM	1.11	1.24	0.13	10%
Antonio Pkwy-La Pata Ave & Ortega Hwy	3,4	AM/PM	1.47	1.52	0.05	3%
Antonio Pkwy & North River Rd	3	AM/PM	0.92	1.03	0.11	11%
Antonio Pkwy & Oso Pkwy	3,4	AM/PM	1.19	1.38	0.19	14%
Avd Empresa & Avd De Las Banderas	3	AM	0.92	0.93	0.01	1%
Avd Empresa & Santa Margarita Pkwy	3,4	AM/PM	1.07	1.11	0.04	4%
Avd La Pata & Avd Pico	3,4	AM/PM	0.98	1.28	0.30	23%
Avd La Pata & Avd Vista Hermosa	3,4	AM/PM	0.97	1.18	0.21	18%
Felipe Rd & Oso Pkwy	3,4	AM/PM	1.07	1.11	0.04	4%
Marguerite Pkwy & Jeronimo Rd	4	AM	0.87	0.92	0.05	5%
SR 241 northbound ramps & Antonio Pkwy	3	AM	1.21	1.23	0.02	2%
SR 241 northbound ramps & Oso Pkwy	3,4	AM	1.64	1.84	0.20	11%
SR 241 southbound ramps & Oso Pkwy	4	AM	0.82	0.96	0.14	15%
FREWAY/TOLLWAY RAMPS						
I-5 at Crown Valley (northbound on-ramp)	3	AM/PM	1.02	1.08	0.06	6%
I-5 at Crown Valley (southbound off-ramp)	3	PM	1.35	1.42	0.07	5%
I-5 at Ortega Hwy (southbound off-ramp)	3,4	PM	1.09	1.20	0.11	9%
I-5 at Stonehill Dr (northbound on-ramp)	3,4	PM	1.06	1.13	0.07	6%
SR 241 at Antonio (northbound on-ramp)	3	AM	1.59	1.63	0.04	2%
SR 241 at Antonio (southbound off-ramp)	3,4	PM	1.02	1.09	0.07	6%

Table 4-37 (cont)
SUMMARY OF 2025 TRAFFIC SHARES PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS OF THE AIP ALTERNATIVE

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025		2025 AIP Alt. V/C (b)	AIP Alt. V/C Share (Y-X)	AIP Alt. V/C Share Percentage (% of Y)
			No Action Alt. V/C (b)	(X)			
FREEWAY/TOLLWAY RAMPS (cont)							
SR 241 at Oso Pkwy (northbound on-ramp)	3,4	AM	1.51	1.77	0.26	15%	
SR 241 at Oso Pkwy (southbound off-ramp)	4	PM	1.30	1.59	0.29	18%	

(a) The assumptions for each scenario are as follows:

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Average intersection capacity utilization (ICU) value or ramp volume/capacity (V/C) ratio for the scenario(s) and peak hour(s) impacted at each location.

The LOS results summarized here assume intersection improvements that are typical for the type of upgrades proposed on Antonio Parkway and La Pata Avenue in the AIP Alternative (e.g., the addition of through lanes and the provision of dual left-turn lanes and separate right-turn lanes). In addition to evaluating the effectiveness of providing grade separation at the intersection locations mentioned above, the mitigation measures discussion in Section 5.0 also evaluate the effectiveness of adding less typical at-grade intersection improvements (e.g., double right-turn lanes or free right-turn lanes, and triple left-turn lanes) to address the direct adverse impacts of the AIP Alternative.

4.2.3.23 I-5 Alternative

The I-5 Widening (I-5) Alternative was analyzed under three scenarios based on the following combinations of assumptions with respect to the circulation system and future RMV development:

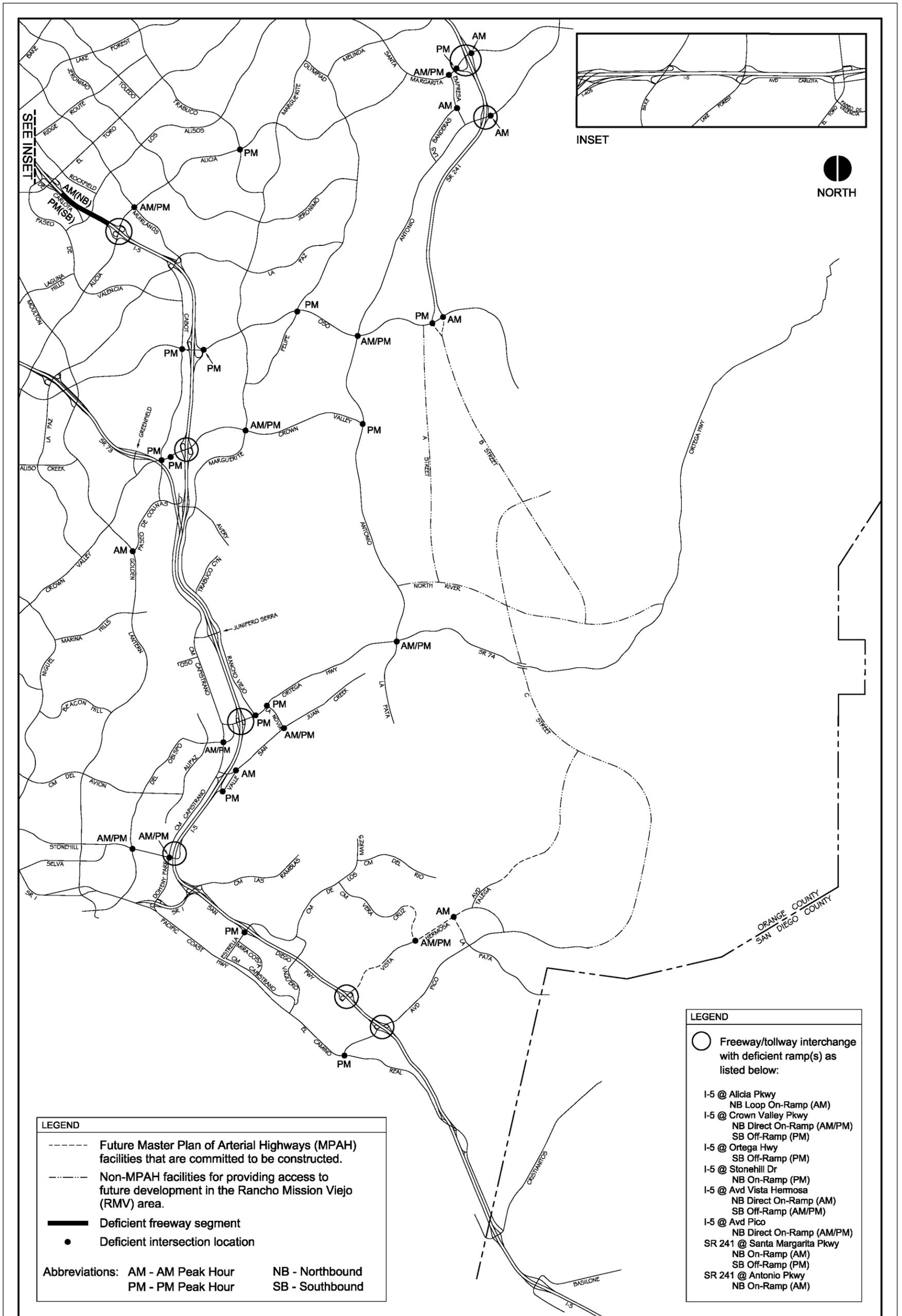
- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Figures 4-35 through 4-37 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations in the traffic analysis study area where long-range (year 2025) peak hour (AM and/or PM) deficiencies are forecast in each of the three I-5 Alternative analysis scenarios. Table 4-38 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in each scenario.

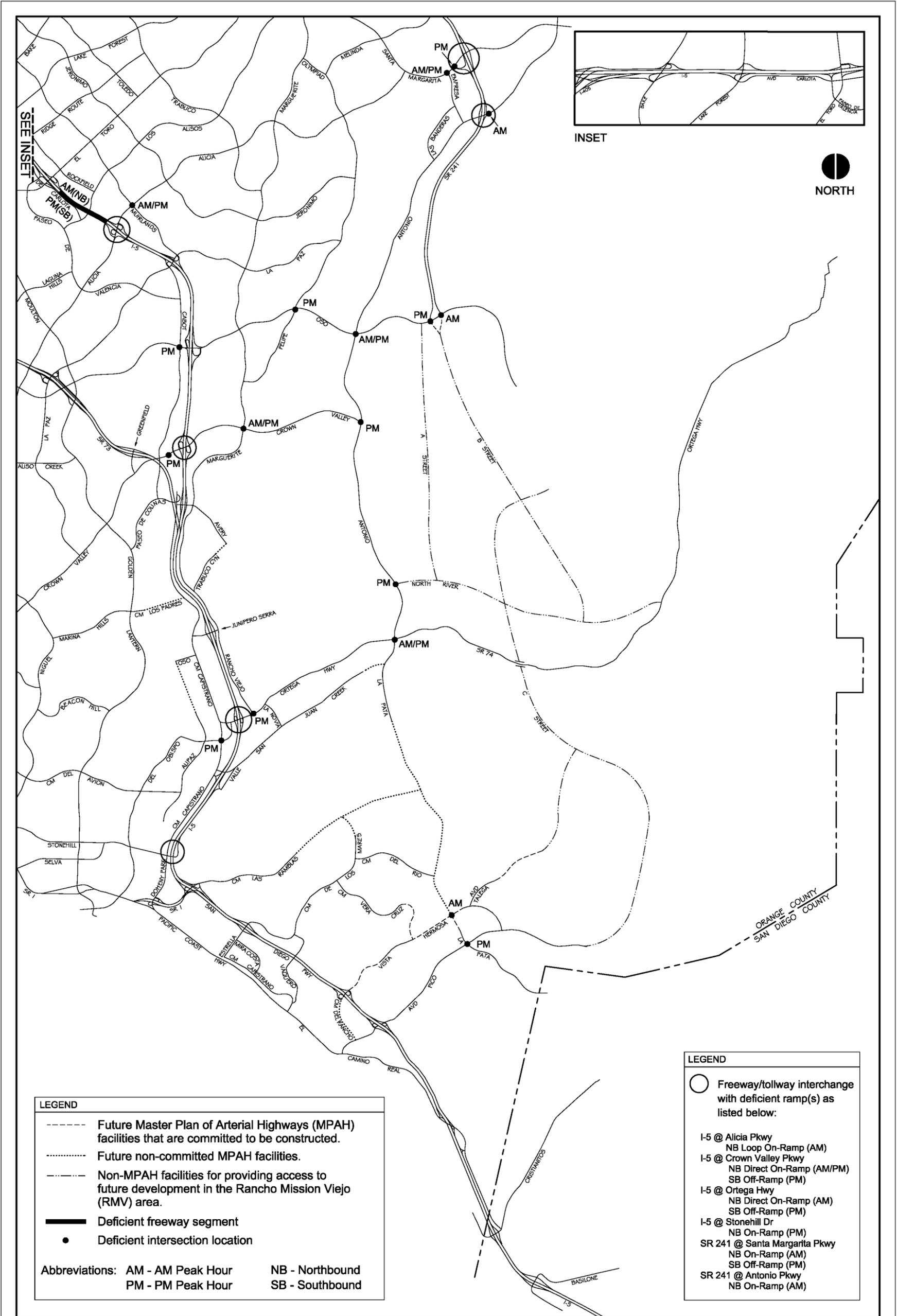
Table 4-38
 SUMMARY OF 2025 DEFICIENCIES UNDER THE I-5 ALTERNATIVE SCENARIOS

Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/Tollway Ramps
Committed circulation system with proposed RMV plan (Scenario 1)	31 (10 less than the No Action Alt.)	1 (11 less than the No Action Alt.)	11 (6 less than the No Action Alt.)
Buildout circulation system with proposed RMV plan (Scenario 3)	18 (9 less than the No Action Alt.)	1 (10 less than the No Action Alt.)	9 (5 less than the No Action Alt.)
Buildout circulation system with OCP-2000 for RMV (Scenario 4)	23 (4 less than the No Action Alt.)	1 (10 less than the No Action Alt.)	13 (3 less than the No Action Alt.)

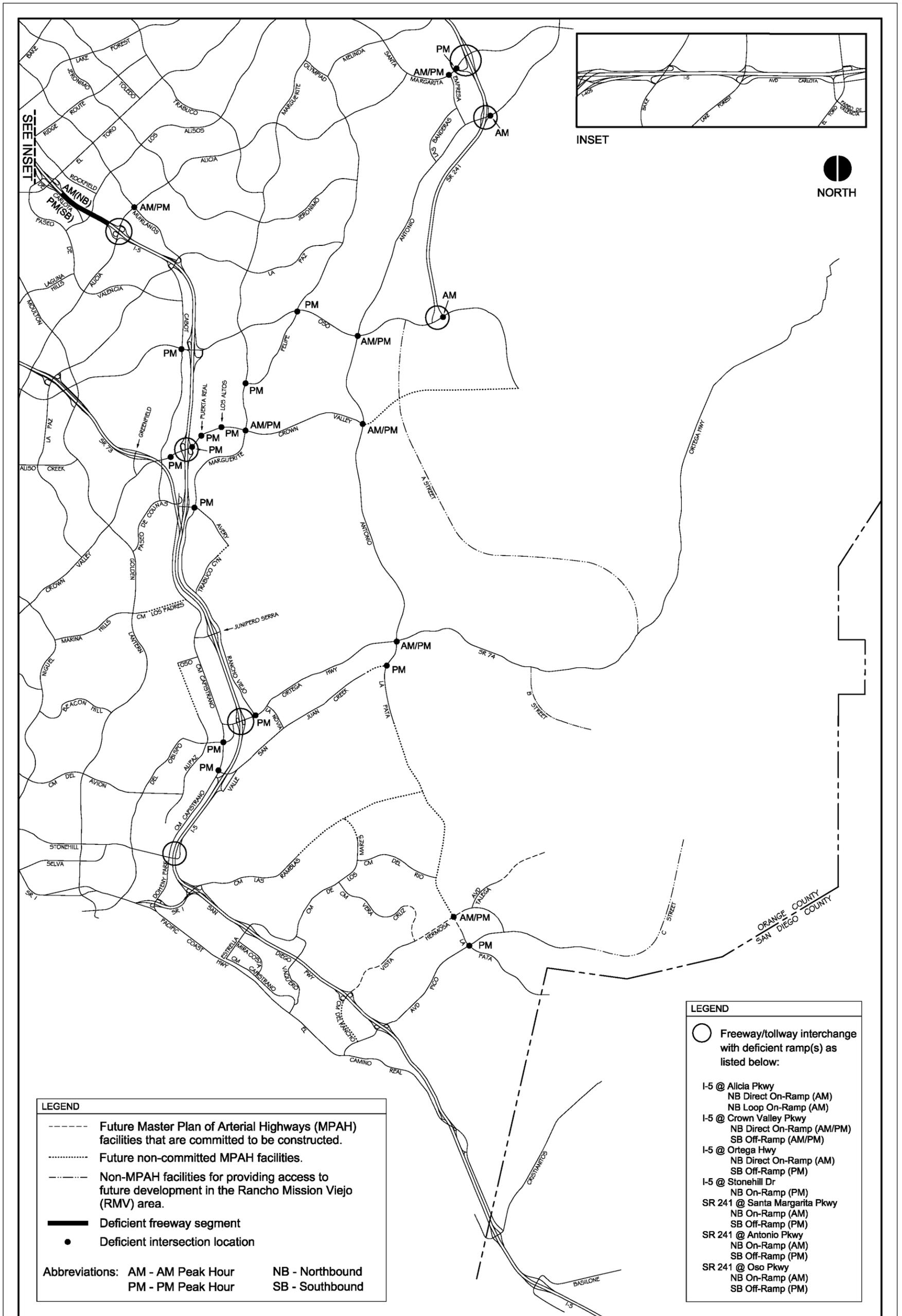
The I-5 Alternative results in substantially fewer I-5 mainline deficiencies compared to the No Action Alternative (only the segment of I-5 between El Toro Road and Alicia Parkway is



2025 Peak Hour Deficiencies - I-5 Alternative
(Committed Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - I-5 Alternative
 (Buildout Circulation System with Proposed RMV Plan)



2025 Peak Hour Deficiencies - I-5 Alternative
(Buildout Circulation System with OCP-2000 for RMV)

forecast to operate deficiently under the I-5 Alternative) and fewer arterial intersection and freeway/tollway ramp deficiencies than the No Action Alternative.

Table 4-39 summarizes the locations on the circulation system where beneficial effects and adverse impacts are forecast to occur based on the comparison of long-range peak hour traffic conditions under the I-5 Alternative scenarios and the No Action Alternative scenarios. The I-5 Alternative is forecast to have a beneficial effect at a substantial number of locations including a number of I-5 mainline segments, ramps, and ramp intersections where physical improvements are constructed as part of the I-5 Alternative. Direct adverse impacts are forecast to occur under the I-5 Alternative at a number of intersections and freeway ramps along routes that lead to and from the I-5 corridor. No indirect adverse impacts are forecast to occur under the I-5 Alternative.

Mitigation measures that address the direct adverse impacts of the I-5 Alternative are presented in Section 5.0 (Mitigation Measures). The direct adverse impacts have a nexus to the roadway facilities that are constructed in the I-5 Alternative and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified in Section 5.0 to mitigate the direct adverse impacts of the I-5 Alternative. Table 4-40 summarizes the share of traffic that is attributed to the I-5 Alternative at each of the locations where direct adverse impacts occur.

4.3 LONG-RANGE MEASURES OF EFFECTIVENESS

This Section provides summaries for various measures of effectiveness that enable comparisons to be made among the SOCTIIP Alternatives. The measures applied in this analysis involve systemwide statistics such as vehicle miles and vehicle hours of travel, facility specific statistics such as congestion levels on I-5 and the arterial roadway system in the study area, and point to point travel time statistics. All provide some form of statistical basis for comparing how the transportation system in general and the vehicles using the transportation system respond to the various alternatives.

4.3.1 SYSTEMWIDE VMT AND VHT STATISTICS

Vehicle miles of travel (VMT) and vehicle hours of travel (VHT) are statistical measures that are standardly used to evaluate circulation system performance on a systemwide basis. In the case of the SOCTIIP traffic analysis, VMT and VHT data was applied to evaluate the systemwide performance of the circulation system under the No Action Alternative and the Build Alternatives. The VMT statistic generally indicates the overall volume of traffic on the circulation system, whereas the VHT statistic is an indicator of the general level of congestion on the circulation system. For instance, the reduction in VHT between a No Action Alternative scenario and a Build Alternative scenario represents the systemwide travel time savings that is produced due to the traffic congestion relief provided by the given Build Alternative.

The South (Orange) County Sub-Area Model (SCSAM) that was applied to prepare long-range (year 2025) traffic forecasts for the SOCTIIP Alternatives was also used to produce systemwide VMT and VHT estimates. Due to the focused structure of the SCAM, the systemwide VMT

Table 4-39

SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS
 UNDER THE I-5 ALTERNATIVE SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b)			
Arterial Intersections			
Avd Empresa & Avd de Las Banderas	Rancho Santa Margarita	AM	3,4
Avd La Pata & Cm del Rio	San Clemente	PM	3,4
Cabot Rd & Crown Valley Pkwy	Laguna Niguel	PM	3,4
Cm Capistrano & I-5 southbound ramps	Caltrans/San Juan Capistrano	PM	4
Cm Capistrano & Junipero Serra Rd	San Juan Capistrano	AM/PM	1,3,4
I-5 northbound ramps & Avd Pico	Caltrans/San Clemente	AM	1,3,4
I-5 southbound ramps & Avd Pico	Caltrans/San Clemente	AM/PM	1,3,4
I-5 northbound ramps & Avery Pkwy	Caltrans/Mission Viejo	AM/PM	1
I-5 southbound ramps & Avery Pkwy	Caltrans/Mission Viejo	PM	1
I-5 southbound ramps & Crown Valley Pkwy	Caltrans/Mission Viejo	PM	4
I-5 northbound ramps & Ortega Hwy	Caltrans/San Juan Capistrano	AM	1
I-5 southbound ramps & Ortega Hwy	Caltrans/San Juan Capistrano	PM	1
I-5 northbound ramps & Oso Pkwy	Caltrans/Mission Viejo	AM	4
La Pata Ave & San Juan Creek Rd	County	PM	3
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	1
Marguerite Pkwy & Jeronimo Rd	Mission Viejo	AM	1
Marguerite Pkwy & La Paz Rd	Mission Viejo	PM	1,3
Pacific Coast Hwy & Cm Capistrano	San Clemente/Dana Point	PM	1
Valle Rd & La Novia Ave/I-5 northbound ramps	Caltrans/San Juan Capistrano	PM	3
Freeway (I-5) Mainline Segments			
I-5 (Alicia Pkwy to La Paz Rd)	Caltrans/Laguna Hills/ Mission Viejo	AM/PM	1,3,4
I-5 (Avd Pico to El Camino Real)	Caltrans/San Clemente	AM/PM	1,3,4
I-5 (Avd Vista Hermosa to Avd Pico)	Caltrans/San Clemente	AM/PM	1
I-5 (Cm Capistrano to Stonehill Dr)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
I-5 (Cm Estrella to Avd Vista Hermosa)	Caltrans/San Clemente	AM/PM	1,3,4
I-5 (Junipero Serra Rd to Ortega Hwy)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
I-5 (La Paz Rd to Oso Pkwy)	Caltrans/Mission Viejo	AM/PM	1,3,4
I-5 (Ortega Hwy to Cm Capistrano)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
I-5 (SR 1/Cm Las Ramblas to Cm Estrella)	Caltrans/Dana Point	AM/PM	1,3,4
I-5 (Stonehill Dr to SR 1/Cm Las Ramblas)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound on-ramp)	Caltrans/San Clemente	PM	3,4
I-5 at Avd Pico (southbound on-ramp)	Caltrans/San Clemente	PM	1
I-5 at Cm Estrella (southbound off-ramp)	Caltrans/Dana Point	PM	1
I-5 at Junipero Serra Rd (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	1,3,4
I-5 at Ortega Hwy (northbound on-ramp)	Caltrans/San Juan Capistrano	AM/PM	1

Table 4-39 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS
 UNDER THE I-5 ALTERNATIVE SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
BENEFICIAL EFFECTS (b) (cont)			
Freeway/Tollway Ramps (cont)			
I-5 at Ortega Hwy (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1
I-5 at Oso Pkwy (southbound off-ramp)	Caltrans/Mission Viejo	PM	1,3
I-5 at SR-1/Cm Las Ramblas (southbound direct on-ramp)	Caltrans/Dana Point	AM/PM	1,3,4
SR 241 at Oso Pkwy (northbound on-ramp)	Caltrans/ Rancho Santa Margarita	AM	1,3
DIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
Antonio Pkwy & Crown Valley Pkwy	County of Orange	PM	3
Antonio Pkwy-La Pata Ave & Ortega Hwy	County of Orange	AM/PM	1,3,4
Cm Capistrano & San Juan Creek Rd	San Juan Capistrano	PM	4
Cm Capistrano & Stonehill Dr	San Juan Capistrano	PM	1
Felipe Rd & Oso Pkwy	Mission Viejo	PM	4
I-5 northbound ramps & Crown Valley Pkwy	Mission Viejo	PM	4
I-5 northbound ramps & Oso Pkwy	Mission Viejo	PM	1
Los Altos & Crown Valley Pkwy	Mission Viejo	PM	4
Marguerite Pkwy & Avery Pkwy	Mission Viejo	PM	4
Marguerite Pkwy & Crown Valley Pkwy	Mission Viejo	AM/PM	1
Puerta Real & Crown Valley Pkwy	Mission Viejo	PM	4
Rancho Viejo Rd & Ortega Hwy	San Juan Capistrano	PM	1
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
I-5 at Avd Pico (northbound direct on-ramp)	Caltrans/San Clemente	AM/PM	1
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	Caltrans/San Clemente	AM	1
I-5 at Avd Vista Hermosa (southbound off-ramp)	Caltrans/San Clemente	AM	1
I-5 at Crown Valley (northbound direct on-ramp)	Caltrans/Mission Viejo	AM/PM	1,3,4
I-5 at Crown Valley (southbound off-ramp)	Caltrans/Mission Viejo	AM/PM	3,4
I-5 at Ortega Hwy (southbound off-ramp)	Caltrans/San Juan Capistrano	PM	1,3,4
I-5 at Stonehill Dr (northbound on-ramp)	Caltrans/San Juan Capistrano	PM	1,3,4
INDIRECT ADVERSE IMPACTS (b)			
Arterial Intersections			
None	--	--	--

Table 4-39 (cont)
 SUMMARY OF 2025 BENEFICIAL EFFECTS AND ADVERSE IMPACTS
 UNDER THE I-5 ALTERNATIVE SCENARIOS

Location	Jurisdiction	Peak Hour	Scenario (a)
INDIRECT ADVERSE IMPACTS (b) (cont)			
Freeway (I-5) Mainline Segments			
None	--	--	--
Freeway/Tollway Ramps			
None	--	--	--

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Refer to Section 4.2.1 for the definition of beneficial effects and direct and indirect adverse impacts.

Table 4-40

SUMMARY OF 2025 TRAFFIC SHARE PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS OF THE I-5 ALTERNATIVE

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025 No Action Alt. V/C (b) (X)	2025 I-5 Alt. V/C (b) (Y)	I-5 Alt. V/C Share (Y-X)	I-5 Alt. V/C Share Percentage (% of Y)
ARTERIAL INTERSECTIONS						
Antonio Pkwy & Crown Valley Pkwy	3	PM	1.01	1.03	0.02	2%
Antonio Pkwy-La Pata Ave & Ortega Hwy	1,3,4	AM/PM	1.62	1.65	0.03	2%
Cm Capistrano & San Juan Creek Rd	4	PM	0.87	0.97	0.10	10%
Cm Capistrano & Stonehill Dr	1	PM	1.34	1.45	0.11	8%
Felipe Rd & Oso Pkwy	4	PM	1.22	1.27	0.05	4%
I-5 northbound ramps & Crown Valley	4	PM	0.96	1.04	0.08	8%
I-5 northbound ramps & Oso Pkwy	1	PM	0.90	0.94	0.04	4%
Los Altos & Crown Valley Pkwy	4	PM	0.98	1.03	0.05	5%
Marguerite Pkwy & Avery Pkwy	4	PM	0.90	0.93	0.03	3%
Marguerite Pkwy & Crown Valley Pkwy	1	AM/PM	1.11	1.13	0.02	2%
Puerta Real & Crown Valley Pkwy	4	PM	1.00	1.03	0.03	3%
Rancho Viejo Rd & Ortega Hwy	1	PM	0.94	0.96	0.02	2%
FREEWAY RAMP						
I-5 at Avd Pico (northbound on-ramp)	1	AM/PM	0.96	1.01	0.05	5%
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	1	AM	1.03	1.07	0.04	4%
I-5 at Avd Vista Hermosa (southbound off-ramp)	1	AM	0.97	1.15	0.18	16%
I-5 at Crown Valley (northbound on-ramp)	1,3,4	AM/PM	1.05	1.16	0.11	9%
I-5 at Crown Valley (southbound off-ramp)	3,4	AM/PM	1.26	1.42	0.16	11%

Table 4-40 (cont)
SUMMARY OF 2025 TRAFFIC SHARES PERCENTAGES FOR THE DIRECT ADVERSE IMPACTS OF THE I-5 ALTERNATIVE

Locations where Direct Adverse Impacts Occur Compared to the No Action Alternative	Scenario (a)	Peak Hour	2025		2025 I-5 Alt. V/C (b)	I-5 Alt. V/C Share (Y-X)	I-5 Alt. V/C Share Percentage (% of Y)
			No Action Alt. V/C (b)	Alt. V/C (X)			

FREEWAY RAMPS (cont)

I-5 at Ortega Hwy (southbound off-ramp)	1,3,4	PM	1.06	1.16	0.10	9%
I-5 at Stonehill Dr (northbound on-ramp)	1,3,4	PM	1.05	1.25	0.20	16%

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

(b) Average intersection capacity utilization (ICU) value or ramp volume/capacity (V/C) ratio for the scenario(s) and peak hour impacted at each location.

and VHT data produced by the model can only be used on a comparative basis (i.e., differences) because the absolute numbers are derived from a regional road network that is skeletal in nature outside of Orange County. The data is adequate to compare VMT and VHT among the SOCTIIP Alternatives by showing the differences in these values.

The SCSAM traffic model provides systemwide traffic volumes and estimated travel speeds on individual facilities for four time periods: AM peak (6 AM to 9 AM), midday (9 AM to 3 PM), PM peak (3 PM to 7 PM) and nighttime (7 PM to 6 AM). For the SOCTIIP evaluation, year 2025 VMT/VHT statistics are summarized for AM peak period conditions, PM peak period conditions and daily conditions, the latter being derived by summing the VMT/VHT results for the four time periods mentioned above. The VMT/VHT statistics are separated according to freeways/tollways and arterial roads, and VMT/VHT data for the segment of I-5 in the SOCTIIP traffic analysis study area is also summarized.

Detailed tables summarizing the long-range (year 2025) AM, PM and daily VMT/VHT statistics for the No Action Alternative and various Build Alternative scenarios that were analyzed are provided in Appendix B. Table 4-41 summarizes the daily VMT/VHT differences for the Build Alternative analysis scenarios compared to the No Action Alternative. Although substantial differences in VMT on the various components of the circulation system (e.g., freeways/tollways, arterial roads, I-5 in the study area) are forecast among the Build Alternatives, the changes in total systemwide VMT are relatively modest among the alternatives. This is an indication that the average length of vehicle trips in southern Orange County does not change substantially, in terms of distance, between the No Action Alternative and the Build Alternatives.

The VHT statistic essentially indicates the amount of travel time savings that is produced due to the traffic congestion relief provided by each of the Build Alternatives. The differences in total systemwide VHT listed in Table 4-41 represent the total hours of reduced vehicle travel time per day that are forecast to be produced by each alternative. The following lists the SOCTIIP Build Alternatives in general order from those alternatives with the highest amount of systemwide travel time savings to those alternatives with the lowest based on 2025 traffic conditions that assume the buildout circulation system and the proposed RMV development plan (Scenario 3). The amount of systemwide travel time savings is relatively the same for Alternatives that are listed together and that amount is substantially different from other higher or lower ranking Alternatives.

- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 and the I-5 Alternative (17,000 to 21,000 hours of travel time savings per day).
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road (14,000 to 15,000 hours of travel time savings per day).
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata and the AIP Alternative (8,000 to 10,000 hours of travel time savings per day).

Table 4-41

2025 DAILY SYSTEMWIDE VMT AND VHT DIFFERENCES UNDER THE SOCTIP BUILD ALTERNATIVES

Alternatives and Scenarios (a)	--VMT Difference (Compared to No Action Alternative) --			--VHT Difference (Compared to No Action Alternative) --		
	Freeways/ Tollways	Arterials	Systemwide Total	Freeways/ Tollways	Arterials	Systemwide Total
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5						
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)						
Scenario 1	395,523	-390,865	4,659	-15,180	-15,604	-30,784
Scenario 3	401,379	-386,398	14,981	-7,263	-12,962	-20,225
Scenario 4	288,059	-339,959	-51,900	-12,861	-21,098	-33,959
FEC-TV Alternatives (Initial and Ultimate)						
Scenario 1	427,045	-421,281	5,763	-11,814	-16,380	-28,195
Scenario 3	441,001	-421,656	19,345	-3,940	-13,336	-17,276
Scenario 4	331,879	-384,895	-53,016	-8,859	-22,091	-30,950
CC Alternatives (Initial and Ultimate)						
Scenario 1	345,497	-364,746	-19,248	-14,358	-14,977	-29,335
Scenario 3	386,618	-368,947	17,671	-5,448	-12,562	-18,010
Scenario 4	359,049	-370,971	-11,921	-8,494	-17,316	-25,810
A7C and A7C-7SV Alternatives (Initial and Ultimate)						
Scenario 1	392,287	-406,758	-14,471	-13,081	-15,886	-28,967
Scenario 3	423,416	-400,003	23,413	-4,690	-12,864	-17,554
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)						
Scenario 1	378,052	-376,467	1,585	-16,800	-14,780	-31,580
Scenario 3	384,812	-362,630	22,182	-8,152	-12,431	-20,582
Scenario 4	287,931	-264,013	23,918	-11,912	-13,036	-24,948

Table 4-41 (cont)
2025 DAILY SYSTEMWIDE VMT AND VHT DIFFERENCES UNDER THE SOCTIIP BUILD ALTERNATIVES

Alternatives and Scenarios (a)	--VMT Difference (Compared to No Action Alternative) --			--VHT Difference (Compared to No Action Alternative) --		
	Freeways/ Tollways	Arterials	Systemwide Total	Freeways/ Tollways	Arterials	Systemwide Total
BUILD ALTERNATIVES WITH FEC-S TOLL ROAD FROM OSO PARKWAY TO CRISTIANITOS ROAD, AVENIDA PICO, AVENIDA LA PATA OR ORTEGA HIGHWAY						
FEC-CV Alternatives (Initial and Ultimate)						
Scenario 1	293,340	-287,524	5,815	-12,529	-12,366	-24,895
Scenario 3	301,339	-286,993	14,346	-5,731	-9,465	-15,196
A7C-FECV-C Alternatives (Initial and Ultimate)						
Scenario 1	268,137	-254,784	13,353	-13,111	-11,322	-24,433
Scenario 3	291,263	-251,730	39,532	-5,739	-8,736	-14,475
FEC-APV Alternatives (Initial and Ultimate)						
Scenario 1	345,763	-327,191	18,573	-6,368	-11,285	-17,652
Scenario 3	356,211	-327,600	28,611	263	-9,352	-9,090
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)						
Scenario 1	235,419	-251,457	-16,038	-8,822	-8,542	-17,363
Scenario 3	273,695	-247,077	26,618	-1,551	-6,340	-7,890
FEC-OHV Alternatives (Initial and Ultimate)						
Scenario 1	217,964	-208,518	9,446	2,365	-5,698	-3,332
Scenario 3	211,615	-204,115	7,499	2,690	-5,438	-2,749
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)						
Scenario 1	151,141	-117,421	33,720	1,573	-1,488	85
Scenario 3	175,271	-140,497	34,774	1,522	-2,529	-1,008

Table 4-41 (cont)
2025 DAILY SYSTEMWIDE VMT AND VHT DIFFERENCES UNDER THE SOCTIP BUILD ALTERNATIVES

Alternatives and Scenarios (a)	--VMT Difference (Compared to No Action Alternative) --			--VHT Difference (Compared to No Action Alternative) --		
	Freeways/ Tollways	Arterials	Systemwide Total	Freeways/ Tollways	Arterials	Systemwide Total
BUILD ALTERNATIVES WITHOUT THE FTC-S TOLL ROAD						
AIO Alternative						
Scenario 3	-73,466	58,101	-15,365	-4,356	-904	-5,260
Scenario 4	-89,641	81,592	-8,050	-6,739	-1,725	-8,464
AIP Alternative						
Scenario 3	-36,811	25,724	-11,087	-6,901	-2,797	-9,698
Scenario 4	-46,649	43,144	-3,505	-9,483	-3,389	-12,872
I-5 Alternative						
Scenario 1	217,097	-210,830	6,297	-17,322	-11,016	-28,337
Scenario 3	207,058	-201,930	5,129	-10,007	-9,685	-19,692
Scenario 4	232,537	-208,642	23,895	-12,138	-9,824	-21,962

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway and the AIO Alternative (1,000 to 5,000 hours of travel time savings per day).

As noted earlier in Section 1.2 (Overview of the Traffic Analysis), this systemwide time savings comparison is only one measure for evaluating the beneficial and adverse impacts of the Build Alternatives. As described in this Section, a full range of measures of effectiveness, including this measure, were assessed, which allow for a greater understanding of the beneficial and adverse impact of the Build Alternatives on the circulation system throughout the SOCTIIP study area.

4.3.2 I-5 CONGESTION IN THE STUDY AREA

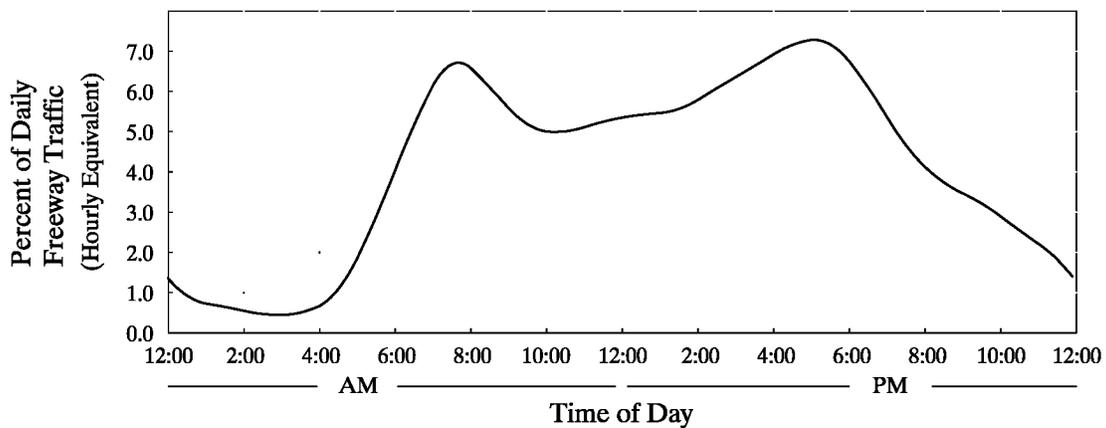
The long-range (year 2025) traffic conditions summarized earlier in this Section for the various No Action Alternative and Build Alternative scenarios that were analyzed included an assessment of future peak hour LOSs on individual segments of I-5 in the SOCTIIP traffic analysis study area. The future LOSs were determined by applying future peak hour traffic demand forecasts from the SCSAM sub-area traffic model together with the peak hour capacities of the various I-5 segments to calculate peak hour V/C ratios. One of the technical issues in evaluating system performance based on peak hour traffic demand forecasts is understanding the implications of a V/C ratio exceeding 1.0 on the freeway system.

In a real world context, it is not possible for a freeway segment V/C ratio to exceed 1.0 because the capacity represents the maximum amount of traffic that can be carried by the freeway segment. Traffic model forecasting procedures are sensitive to the amount of capacity provided by individual elements of the circulation system (i.e., arterial roads, freeway and toll road segments, etc.). In cases where the area-wide traffic demand exceeds the overall capacity of the circulation system, the traffic model will forecast traffic volumes that result in V/C ratios greater than 1.0. For I-5 segments in the SOCTIIP study area, these conditions represent a theoretical future demand rather than an actual traffic volume. In the real world, peak hour freeway volumes in excess of the freeway capacity will spread into periods of congestion before and after the peak hour and some traffic will divert to other facilities as the peak period spread increases. This issue is addressed by using an effectiveness measure that evaluates peak spreading on I-5 in the SOCTIIP study area.

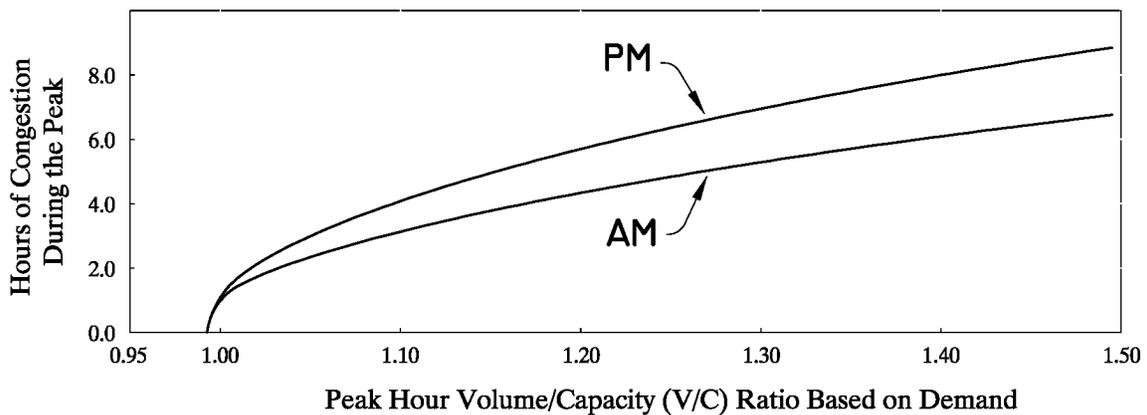
To estimate the real world effect of freeway traffic demand forecasts that exceed capacity, an analysis was made of the peak spreading effect. The first step in such an analysis is to understand the typical daily traffic demand pattern for a freeway such as I-5 when operating under non-congested conditions. This was accomplished using recent 24-hour Caltrans traffic count data for various freeway locations in Orange County where extended periods of congestion do not currently occur and where Caltrans maintains count stations.

Based on the resulting daily non-congested freeway demand pattern illustrated in the top graph in Figure 4-38, it is possible to estimate the amount of peak spreading that would occur when traffic demand exceeds capacity on a given segment of I-5. As demand exceeds capacity, the peak will spread to give an extended period of freeway congestion, the spread depending on the degree to which demand exceeds capacity. The center graph in Figure 4-38 illustrates the extent of such

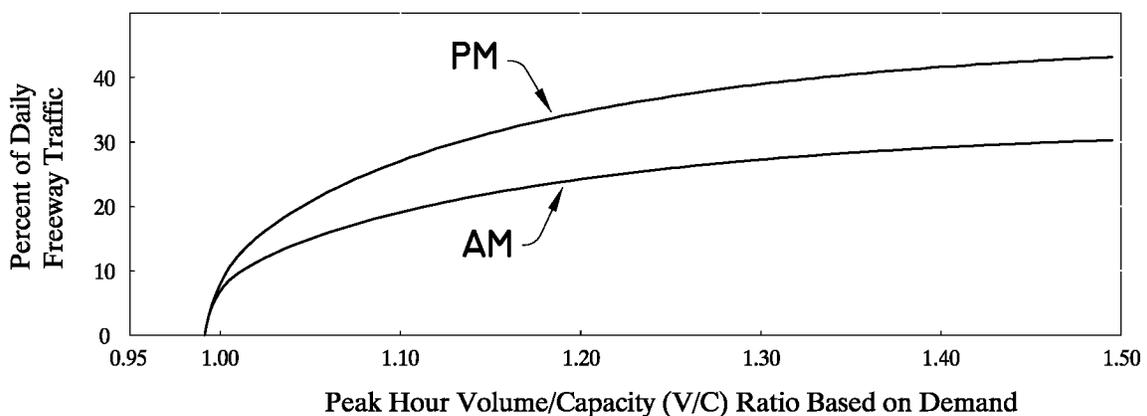
TYPICAL NON-CONGESTED FREEWAY TRAFFIC DEMAND PATTERN



AM AND PM PEAK SPREADING WHEN DEMAND EXCEEDS CAPACITY



PERCENT OF DAILY TRAFFIC OCCURRING DURING THE CONGESTED PEAK



Peak Period Freeway Congestion Relationships

spreading during the AM and PM peak. Because the PM peak has a flatter curve than the AM peak under non-congested conditions, the peak spread is greater in the PM peak than in the AM peak for the same V/C ratio. For each long-range analysis scenario, these relationships were applied to estimate the duration of congestion (i.e., the number of hours of congestion before and after the peak hours) that would actually occur during the AM and PM peak for I-5 segments with forecasted peak hour V/C ratios greater than 1.0.

The daily non-congested freeway demand pattern can also be used to determine the proportion of daily traffic that is forecast to experience congested conditions for I-5 segments where future peak hour traffic demand exceeds capacity. The bottom graph in Figure 4-38 illustrates the percentage of daily traffic that occurs under congested AM and PM peak conditions depending on the degree to which demand exceeds capacity (i.e., the amount of peak spreading during the AM and PM peak). Applying these relationships, together with segment lengths and forecasted daily traffic volumes, enables the amount of VMT that occurs under congested conditions to be calculated for individual segments of I-5 and summed for the entire portion of I-5 that is in the SOCTIIP study area. This estimate of the percent of daily VMT on I-5 that is forecast to occur under congested conditions is used as a comparative statistic in the measures of effectiveness.

Detailed tables summarizing peak spreading and congested versus non-congested VMT on I-5 on a segment by segment basis are provided in Appendix D for the existing traffic conditions that were discussed in Section 3.2 and for year 2025 conditions based on the No Action Alternative and various Build Alternative scenarios that were analyzed. Table 4-42 summarizes the daily VMT on I-5 in the SOCTIIP study area (i.e., from I-405 to south of the Orange County/San Diego County boundary) and the percent of daily VMT that is forecast to occur under congested conditions in each long-range (year 2025) scenario.

The following lists the SOCTIIP Alternatives in general order from those alternatives with the lowest percentage of congestion on I-5 to those alternatives with the highest percentage of congestion on I-5 based on 2025 traffic conditions that assume the buildout circulation system and the proposed RMV development plan (Scenario 3). The amount of congestion on I-5 is relatively the same for Alternatives that are listed together and that amount is substantially different from other higher or lower ranking Alternatives.

- The I-5 Alternative (1.0 percent of daily I-5 traffic is congested).
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 and the AIP Alternative (2.2 to 3.4 percent of daily I-5 traffic is congested).
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road (4.6 to 5.1 percent of daily I-5 traffic is congested).
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata (7.8 to 8.7 percent of daily I-5 traffic is congested).

Table 4-42

SUMMARY OF 2025 CONGESTION ON I-5 IN THE SOCTIIP STUDY AREA

Alternatives and Scenarios (a)	Daily Vehicle Miles of Travel (VMT)	Percent of Daily VMT Under Congested Conditions
No Action Alternative		
Scenario 1	7,324,310	22.7%
Scenario 2	7,508,410	28.6%
Scenario 3	7,240,850	15.9%
Scenario 4	7,342,700	19.2%
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5		
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)		
Scenario 1	6,869,160	6.7%
Scenario 3	6,893,110	3.4%
Scenario 4	6,916,550	4.3%
FEC-TV Alternatives (Initial and Ultimate)		
Scenario 1	7,004,540	6.4%
Scenario 3	7,028,110	2.7%
Scenario 4	7,052,910	3.9%
CC Alternatives (Initial and Ultimate)		
Scenario 1	6,950,360	5.1%
Scenario 3	6,965,050	2.4%
Scenario 4	7,004,420	3.2%
A7C and A7C-7SV Alternatives (Initial and Ultimate)		
Scenario 1	6,962,680	5.4%
Scenario 3	6,977,030	2.5%
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)		
Scenario 1	6,823,430	5.2%
Scenario 3	6,841,500	3.2%
Scenario 4	6,903,360	4.0%
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO CRISTIANITOS ROAD, AVENIDA PICO, AVENIDA LA PATA OR ORTEGA HIGHWAY		
FEC-CV Alternatives (Initial and Ultimate)		
Scenario 1	7,011,010	9.4%
Scenario 3	7,033,240	5.1%
A7C-FECV-C Alternatives (Initial and Ultimate)		
Scenario 1	6,992,390	8.6%
Scenario 3	7,010,320	4.6%

Table 4-42 (cont)
 SUMMARY OF 2025 CONGESTION ON I-5 IN THE SOCTIIP STUDY AREA

Alternatives and Scenarios (a)	Daily Vehicle Miles of Travel (VMT)	Percent of Daily VMT Under Congested Conditions
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO CRISTIANITOS ROAD, AVENIDA PICO, AVENIDA LA PATA OR ORTEGA HIGHWAY (cont)		
FEC-APV Alternatives (Initial and Ultimate)		
Scenario 1	7,124,850	13.7%
Scenario 3	7,129,070	8.7%
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)		
Scenario 1	7,101,130	12.2%
Scenario 3	7,112,590	7.8%
FEC-OHV Alternatives (Initial and Ultimate)		
Scenario 1	7,309,010	21.8%
Scenario 3	7,228,690	15.2%
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)		
Scenario 1	7,315,760	21.7%
Scenario 3	7,217,900	14.5%
BUILD ALTERNATIVES WITHOUT THE FTC-S TOLL ROAD		
AIO Alternative		
Scenario 3	7,162,950	11.3%
Scenario 4	7,243,780	13.3%
AIP Alternative		
Scenario 3	7,235,540	2.2%
Scenario 4	7,327,930	2.4%
I-5 Alternative		
Scenario 1	7,748,360	1.0%
Scenario 3	7,657,520	1.0%
Scenario 4	7,774,480	1.2%

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

- The AIO Alternative (11.3 percent of daily I-5 traffic is congested).
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway and the No Action Alternative (14.5 to 15.9 percent of daily I-5 traffic is congested).

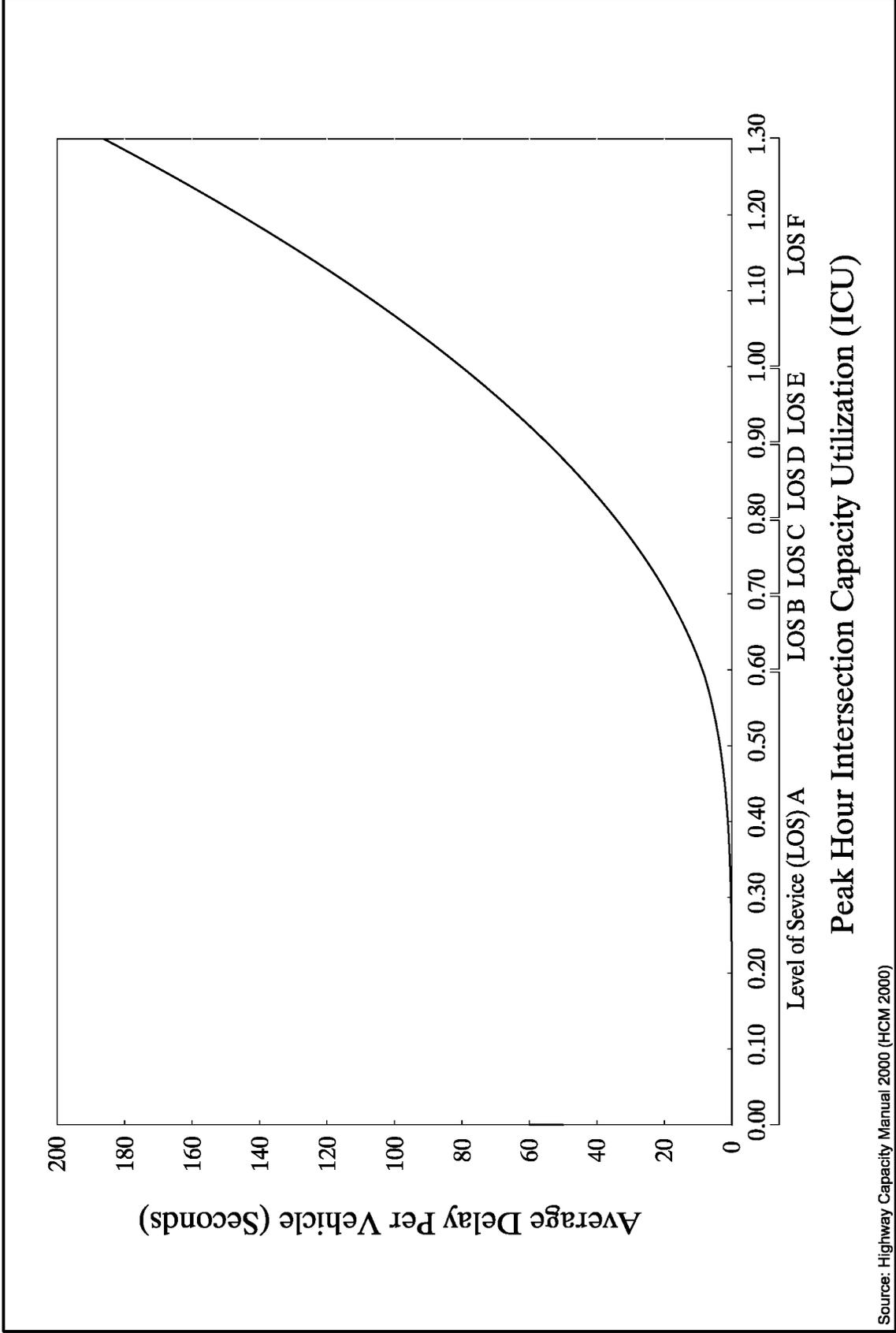
As shown in Table 4-42, the I-5 and AIP Alternatives generally have less congestion on I-5 than the other Build Alternatives. This is because both of these Alternatives include improvements to I-5, where substantial congestion occurs under both existing conditions and future No Action Alternative conditions. As a result, the widening of I-5 under these two Alternatives results in the reduction of congestion greater than the reductions that would occur on I-5 under those Build Alternatives that do not include widening of I-5. As noted earlier in Section 1.2 (Overview of the Traffic Analysis), this I-5 congestion comparison is only one measure for evaluating the beneficial and adverse impacts of the Build Alternatives. As described in this Section, a full range of measures of effectiveness, including this measure, were assessed, which allow for a greater understanding of the beneficial and adverse impact of the Build Alternatives on the circulation system throughout the SOCTIIP study area.

4.3.3 ARTERIAL CONGESTION IN THE STUDY AREA

In this Section, congestion statistics for the arterial road system in the SOCTIIP study area are summarized for use as a measure of effectiveness in comparing future traffic conditions among the SOCTIIP Alternatives. The long-range (year 2025) traffic conditions summarized earlier in this Section for the No Action Alternative and the various Build Alternatives included an assessment of future peak hour LOSs at arterial intersection locations throughout the study area based on AM and PM peak hour ICU values. To derive a comparative congestion statistic, those peak hour ICU values were converted to estimates of equivalent vehicle delay based on the relationship between LOS and vehicle delay that is defined in the *Highway Capacity Manual 2000 (HCM 2000)* (Transportation Research Board, National Research Council, 2000 Edition) for signalized intersections.

The *HCM 2000* relationship between LOS based on peak hour ICU values and the average vehicle delay at a given intersection location is illustrated in Figure 4-39. As the illustration indicates, the amount of vehicle delay at an intersection generally increases as the LOS at the intersection worsens. For a comparative congestion statistic, delay estimates were summed for intersections throughout the study area, resulting in an estimate of total hours of vehicle delay on the arterial system for each analysis scenario. Essentially, the greater the amount of total hours of vehicle delay is for a given scenario, the more congested the arterial roadway system will be under that scenario.

Because the number of signalized intersections varies among the scenarios, this statistic was summarized only for a set of major intersections that is common to each of the analysis scenarios, thereby enabling a true comparative evaluation to be conducted among the scenarios. The intersection locations that were applied in the derivation of the delay statistic are illustrated in Figure 4-40 which is based on the No Action Alternative under committed future circulation



Source: Highway Capacity Manual 2000 (HCM 2000)

Peak Hour Intersection Capacity Utilization (ICU)

Relationship Between Intersection LOS and Vehicle Delay

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

Figure 4-39

system conditions. Also, the peak hour ICU values used to determine vehicle delay at the intersections that are adversely impacted by the Build Alternatives (refer to the adverse impact summaries presented earlier in this Section) include the intersection improvements that are identified in Section 5.0 (Mitigation Measures) to mitigate those adverse impacts.

Detailed tables summarizing the hours of vehicle delay forecast at each intersection location based on year 2025 conditions are provided in Appendix F for the No Action Alternative and various Build Alternative scenarios that were analyzed. Table 4-43 summarizes the total hours of vehicle delay throughout the SOCTIIP study area for each long-range analysis scenario.

The following lists the SOCTIIP Alternatives in general order from those alternatives with the lowest amount of congestion (i.e., vehicle delay) on the arterial system to those alternatives with the highest amount of congestion based on 2025 traffic conditions that assume the buildout circulation system and the proposed RMV development plan (Scenario 3). The amount of congestion on the arterial system is relatively the same for Alternatives that are listed together and although the amount of congestion is substantially less under the Build Alternatives compared to the No Action Alternative, it is important to note that the amount of congestion on the arterial system does not vary substantially among the Build Alternatives.

- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5, the Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road, the AIO Alternative, and the AIP Alternative (7,600 to 7,900 hours of vehicle delay on the arterial system).
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata, the Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway, and the I-5 Alternative (8,100 to 8,700 hours of vehicle delay on the arterial system).
- The No Action Alternative (9,900 hours of vehicle delay on the arterial system).

As noted earlier in Section 1.2 (Overview of the Traffic Analysis), this arterial system congestion comparison is only one measure for evaluating the beneficial and adverse impacts of the Build Alternatives. As described in this Section, a full range of measures of effectiveness, including this measure, were assessed, which allow for a greater understanding of the beneficial and adverse impact of the Build Alternatives on the circulation system throughout the SOCTIIP study area.

4.3.4 POINT TO POINT TRAVEL TIME STATISTICS

For this measure of effectiveness, comparisons among the SOCTIIP Alternatives were made based on point to point travel times between I-5 at the Orange County/San Diego County border and areas to the north. This statistic is expressed in terms of average travel times during the AM and PM peak periods for traffic between the county line and local geographic areas in Orange County and the region beyond Orange County.

Table 4-43

SUMMARY OF 2025 VEHICLE DELAY
 ON THE ARTERIAL SYSTEM IN THE SOCTIIP STUDY AREA

Alternatives and Scenarios (a) **Total Hours of Vehicle Delay at Signalized Intersections During the AM and PM Peak Hours**

No Action Alternative

Scenario 1	13,196
Scenario 2	17,343
Scenario 3	9,944
Scenario 4	12,489

BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5

FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)

Scenario 1	10,633 (19% less than the No Action Alt.)
Scenario 3	7,722 (22% less than the No Action Alt.)
Scenario 4	9,511 (24% less than the No Action Alt.)

FEC-TV Alternatives (Initial and Ultimate)

Scenario 1	10,593 (20% less than the No Action Alt.)
Scenario 3	7,883 (21% less than the No Action Alt.)
Scenario 4	9,540 (24% less than the No Action Alt.)

CC Alternatives (Initial and Ultimate)

Scenario 1	10,585 (20% less than the No Action Alt.)
Scenario 3	7,871 (21% less than the No Action Alt.)
Scenario 4	9,438 (24% less than the No Action Alt.)

A7C and A7C-7SV Alternatives (Initial and Ultimate)

Scenario 1	10,446 (21% less than the No Action Alt.)
Scenario 3	7,788 (22% less than the No Action Alt.)

A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)

Scenario 1	10,440 (21% less than the No Action Alt.)
Scenario 3	7,677 (23% less than the No Action Alt.)
Scenario 4	10,069 (24% less than the No Action Alt.)

BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO CRISTIANITOS ROAD, AVENIDA PICO, AVENIDA LA PATA OR ORTEGA HWY

FEC-CV Alternatives (Initial and Ultimate)

Scenario 1	10,801 (18% less than the No Action Alt.)
Scenario 3	7,888 (21% less than the No Action Alt.)

A7C-FECV-C Alternatives (Initial and Ultimate)

Scenario 1	10,769 (18% less than the No Action Alt.)
Scenario 3	7,864 (21% less than the No Action Alt.)

Table 4-43 (cont)
 SUMMARY OF 2025 VEHICLE DELAY
 ON THE ARTERIAL SYSTEM IN THE SOCTIIP STUDY AREA

Alternatives and Scenarios (a)	Total Hours of Vehicle Delay at Signalized Intersections During the AM and PM Peak Hours
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO CRISTIANITOS RD, AVENIDA PICO, AVENIDA LA PATA OR ORTEGA HWY (cont)	
FEC-APV Alternatives (Initial and Ultimate)	
Scenario 1	11,222 (15% less than the No Action Alt.)
Scenario 3	8,115 (18% less than the No Action Alt.)
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)	
Scenario 1	10,944 (17% less than the No Action Alt.)
Scenario 3	8,188 (18% less than the No Action Alt.)
FEC-OHV Alternatives (Initial and Ultimate)	
Scenario 1	11,449 (13% less than the No Action Alt.)
Scenario 3	8,708 (12% less than the No Action Alt.)
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)	
Scenario 1	11,591 (12% less than the No Action Alt.)
Scenario 3	8,366 (16% less than the No Action Alt.)
BUILD ALTERNATIVES WITHOUT THE FTC-S TOLL ROAD	
AIO Alternative	
Scenario 3	7,889 (21% less than the No Action Alt.)
Scenario 4	9,708 (22% less than the No Action Alt.)
AIP Alternative	
Scenario 3	7,589 (24% less than the No Action Alt.)
Scenario 4	9,308 (25% less than the No Action Alt.)
I-5 Alternative	
Scenario 1	10,292 (22% less than the No Action Alt.)
Scenario 3	8,326 (16% less than the No Action Alt.)
Scenario 4	10,535 (16% less than the No Action Alt.)

(a) The assumptions for each scenario are as follows:

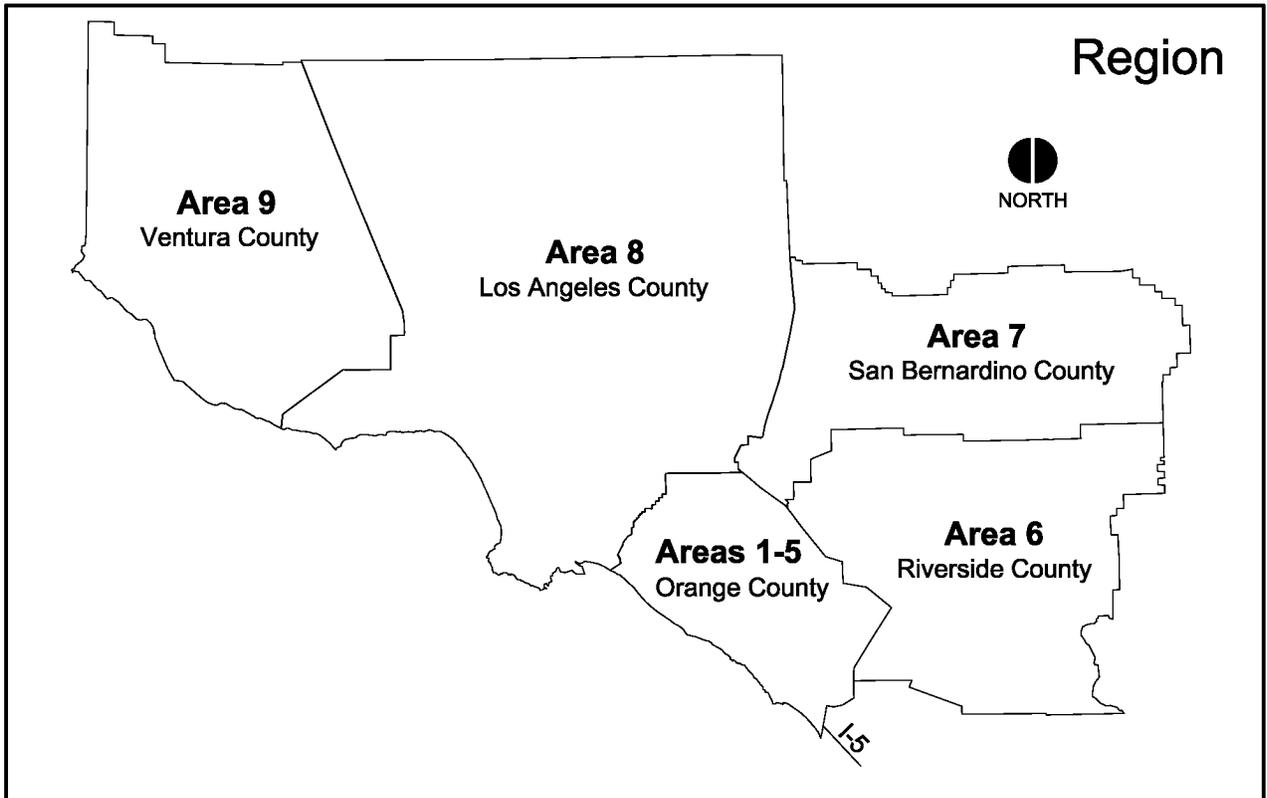
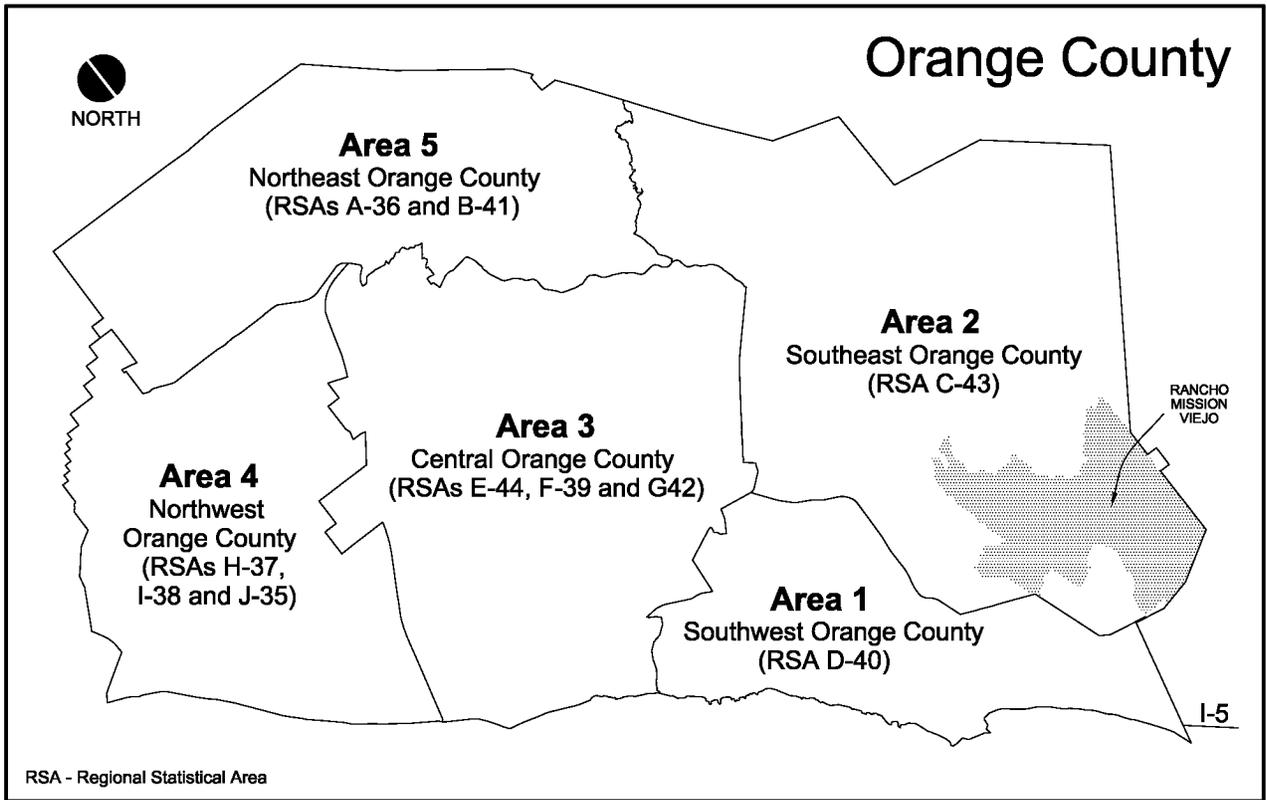
- Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
- Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
- Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
- Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

The nine geographic areas applied to summarize the travel time statistics are illustrated in Figure 4-41. Five areas are defined within Orange County based on established Regional Statistical Areas (RSAs), and four additional areas are applied for the Counties of Riverside, San Bernardino, Los Angeles and Ventura. The SCSAM sub-area traffic model that was applied to prepare long-range (year 2025) traffic forecasts for the SOCTIIP Alternatives was used to produce travel time estimates based on constrained roadway speeds that are forecast for the AM and PM peak periods (i.e., speeds that reflect the level of traffic congestion that is forecast during the peak periods).

For each SOCTIIP Alternative, travel time statistics for the nine geographic areas were calculated by averaging the peak travel time estimates between I-5 and each of the individual traffic model zones that are defined within a given geographic area. Separate statistics were prepared for each direction of travel (i.e., to and from I-5 at the county border). Table 4-44 summarizes the resulting year 2025 travel time statistics for the No Action Alternative and Build Alternatives based on the buildout circulation system and the 14,000 DU proposed RMV development plan.

The following lists the SOCTIIP Build Alternatives in general order from those alternatives with the highest amount of point to point travel time savings compared to the No Action Alternative in the peak directions in southern Orange County (i.e., northbound on I-5 in the AM and southbound on I-5 in the PM) to those alternatives with the lowest amount of travel time savings. The amount of point to point travel time savings is relatively the same for Alternatives that are listed together and that amount is substantially different from other higher or lower ranking Alternatives.

- The I-5 Alternative and the AIP Alternative (travel times to and from southern Orange County reduced by 6 to 11 minutes or 21 to 32 percent, travel times to and from central and northern Orange County reduced by 13 to 16 minutes or 16 to 25 percent, and travel times to and from areas beyond Orange County reduced by 12 to 18 minutes or 7 to 14 percent).
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 with a Far East Corridor connection at I-5 (travel times to and from southern Orange County reduced by 5 to 10 minutes or 18 to 27 percent, travel times to and from central and northern Orange County reduced by 8 to 12 minutes or 10 to 16 percent, and travel times to and from areas beyond Orange County reduced by 11 to 17 minutes or 5 to 13 percent).
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5 with a Central Corridor connection at I-5, and the Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road (travel times to and from southern Orange County reduced by 3 to 7 minutes or 11 to 19 percent, travel times to and from central and northern Orange County reduced by 5 to 10 minutes or 6 to 13 percent, and travel times to and from areas beyond Orange County reduced by 7 to 11 minutes or 3 to 9 percent).



Geographic Areas for Summarizing Point to Point Travel Time Statistics

Table 4-44

SUMMARY OF 2025 TRAVEL TIMES TO AND FROM I-5 AT THE ORANGE/SAN DIEGO COUNTY BORDER

Alternatives and Difference (a)	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
No Action Alternative									
AM from I-5	28	37	57	79	78	121	130	137	211
AM to I-5	22	30	45	73	77	150	152	142	222
PM from I-5	27	35	52	82	83	155	157	156	238
PM to I-5	31	38	57	81	79	133	140	148	233
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5									
FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)									
AM from I-5	23	28	48	70	66	107	116	126	200
Difference	-5	-9	-9	-9	-12	-14	-14	-11	-11
% Difference	-18%	-24%	-16%	-11%	-15%	-12%	-11%	-8%	-5%
AM to I-5	21	26	43	71	75	141	149	139	220
Difference	-1	-4	-2	-2	-2	-9	-3	-3	-2
% Difference	-5%	-13%	-4%	-3%	-3%	-6%	-2%	-2%	-1%
PM from I-5	23	27	47	77	76	141	150	149	231
Difference	-4	-8	-5	-5	-7	-14	-7	-7	-7
% Difference	-15%	-23%	-10%	-6%	-8%	-9%	-4%	-4%	-3%
PM to I-5	24	28	48	73	68	116	128	137	222
Difference	-7	-10	-9	-8	-11	-17	-12	-11	-11
% Difference	-23%	-26%	-16%	-10%	-14%	-13%	-9%	-7%	-5%

Table 4-44 (cont)
SUMMARY OF 2025 TRAVEL TIMES TO AND FROM I-5 AT THE ORANGE/SAN DIEGO COUNTY BORDER

Alternatives and Difference (a)	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
----- Average Travel Time in Minutes Between I-5 at the County Border and Each Geographic Area (b) -----									
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5 (cont)									
FEC-TV Alternatives (Initial and Ultimate)									
AM from I-5	25	30	51	72	69	110	120	128	203
Difference	-3	-7	-6	-7	-9	-11	-10	-9	-8
% Difference	-11%	-19%	-11%	-9%	-12%	-9%	-8%	-7%	-4%
AM to I-5	21	27	44	71	75	143	149	140	220
Difference	-1	-3	-1	-2	-2	-7	-3	-2	-2
% Difference	-5%	-10%	-2%	-3%	-3%	-5%	-2%	-1%	-1%
PM from I-5	25	30	49	79	79	145	154	152	234
Difference	-2	-5	-3	-3	-4	-10	-3	-4	-4
% Difference	-7%	-14%	-6%	-4%	-5%	-6%	-2%	-3%	-2%
PM to I-5	27	32	51	76	73	122	133	141	226
Difference	-4	-6	-6	-5	-6	-11	-7	-7	-7
% Difference	-13%	-16%	-11%	-6%	-8%	-8%	-5%	-5%	-3%
CC Alternatives (Initial and Ultimate)									
AM from I-5	25	30	50	72	68	110	119	128	202
Difference	-3	-7	-7	-7	-10	-11	-11	-9	-9
% Difference	-11%	-19%	-12%	-9%	-13%	-9%	-8%	-7%	-4%
AM to I-5	21	27	43	71	75	145	149	140	220
Difference	-1	-3	-2	-2	-2	-5	-3	-2	-2
% Difference	-5%	-10%	-4%	-3%	-3%	-3%	-2%	-1%	-1%
PM from I-5	25	30	49	79	78	147	153	152	234
Difference	-2	-5	-3	-3	-5	-8	-4	-4	-4
% Difference	-7%	-14%	-6%	-4%	-6%	-5%	-3%	-3%	-2%
PM to I-5	27	31	51	76	72	123	132	141	226
Difference	-4	-7	-6	-5	-7	-10	-8	-7	-7
% Difference	-13%	-18%	-11%	-6%	-9%	-8%	-6%	-5%	-3%

Table 4-44 (cont)
SUMMARY OF 2025 TRAVEL TIMES TO AND FROM I-5 AT THE ORANGE/SAN DIEGO COUNTY BORDER

Alternatives and Difference (a)	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
----- Average Travel Time in Minutes Between I-5 at the County Border and Each Geographic Area (b) -----									
Build Alternatives with FTC-S Toll Road from Oso Parkway to I-5 (cont)									
A7C and A7C-7SV Alternatives (Initial and Ultimate)									
AM from I-5	25	30	50	72	68	110	119	128	202
Difference	-3	-7	-7	-7	-10	-11	-11	-9	-9
% Difference	-11%	-19%	-12%	-9%	-13%	-9%	-8%	-7%	-4%
AM to I-5	21	27	43	71	75	147	150	140	220
Difference	-1	-3	-2	-2	-2	-3	-2	-2	-2
% Difference	-5%	-10%	-4%	-3%	-3%	-2%	-1%	-1%	-1%
PM from I-5	25	30	49	79	78	148	153	152	234
Difference	-2	-5	-3	-3	-5	-7	-4	-4	-4
% Difference	-7%	-14%	-6%	-4%	-6%	-5%	-3%	-3%	-2%
PM to I-5	27	31	51	76	72	123	133	141	226
Difference	-4	-7	-6	-5	-7	-10	-7	-7	-7
% Difference	-13%	-18%	-11%	-6%	-9%	-8%	-5%	-5%	-3%
A7C-FECV, A7C-FECV-M and A7C-FECV-AF Alternatives (Initial and Ultimate)									
AM from I-5	23	27	48	70	66	107	116	125	200
Difference	-5	-10	-9	-9	-12	-14	-14	-12	-11
% Difference	-18%	-27%	-16%	-11%	-15%	-12%	-11%	-9%	-5%
AM to I-5	21	26	43	71	75	145	149	139	219
Difference	-1	-4	-2	-2	-2	-5	-3	-3	-3
% Difference	-5%	-13%	-4%	-3%	-3%	-3%	-2%	-2%	-1%
PM from I-5	23	27	47	76	75	144	149	149	231
Difference	-4	-8	-5	-6	-8	-11	-8	-7	-7
% Difference	-15%	-23%	-10%	-7%	-10%	-7%	-5%	-4%	-3%
PM to I-5	24	28	48	73	68	118	128	137	222
Difference	-7	-10	-9	-8	-11	-15	-12	-11	-11
% Difference	-23%	-26%	-16%	-10%	-14%	-11%	-9%	-7%	-5%

Table 4-44 (cont)
SUMMARY OF 2025 TRAVEL TIMES TO AND FROM I-5 AT THE ORANGE/SAN DIEGO COUNTY BORDER

Alternatives and Difference (a)	Average Travel Time in Minutes Between I-5 at the County Border and Each Geographic Area (b) -----								
	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
Build Alternatives with FTC-S Toll Road from Oso Parkway to Cristianitos Road, Avenida Pico, Avenida La Pata or Ortega Highway									
FEC-CV Alternatives (Initial and Ultimate)									
AM from I-5	24	30	50	71	69	111	120	127	201
Difference	-4	-7	-7	-8	-9	-10	-10	-10	-10
% Difference	-14%	-19%	-12%	-10%	-12%	-8%	-8%	-7%	-5%
AM to I-5	21	27	44	71	75	143	149	140	220
Difference	-1	-3	-1	-2	-2	-7	-3	-2	-2
% Difference	-5%	-10%	-2%	-3%	-3%	-5%	-2%	-1%	-1%
PM from I-5	24	30	48	78	78	145	152	150	233
Difference	-3	-5	-4	-4	-5	-10	-5	-6	-5
% Difference	-11%	-14%	-8%	-5%	-6%	-6%	-3%	-4%	-2%
PM to I-5	25	31	50	75	71	122	132	140	225
Difference	-6	-7	-7	-6	-8	-11	-8	-8	-8
% Difference	-19%	-18%	-12%	-7%	-10%	-8%	-6%	-5%	-3%
A7C-FECV-C Alternatives (Initial and Ultimate)									
AM from I-5	24	30	49	71	69	112	120	127	201
Difference	-4	-7	-8	-8	-9	-9	-10	-10	-10
% Difference	-14%	-19%	-14%	-10%	-12%	-7%	-8%	-7%	-5%
AM to I-5	21	27	44	71	75	147	150	140	220
Difference	-1	-3	-1	-2	-2	-3	-2	-2	-2
% Difference	-5%	-10%	-2%	-3%	-3%	-2%	-1%	-1%	-1%
PM from I-5	24	30	48	77	78	149	152	150	232
Difference	-3	-5	-4	-5	-5	-6	-5	-6	-6
% Difference	-11%	-14%	-8%	-6%	-6%	-4%	-3%	-4%	-3%
PM to I-5	25	31	50	74	71	123	132	140	224
Difference	-6	-7	-7	-7	-8	-10	-8	-8	-9
% Difference	-19%	-18%	-12%	-9%	-10%	-8%	-6%	-5%	-4%

Table 4-44 (cont)
SUMMARY OF 2025 TRAVEL TIMES TO AND FROM I-5 AT THE ORANGE/SAN DIEGO COUNTY BORDER

Alternatives and Difference (a)	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
----- Average Travel Time in Minutes Between I-5 at the County Border and Each Geographic Area (b) -----									
Build Alternatives with FTC-S Toll Road from Oso Parkway to Cristianitos Road, Avenida Pico, Avenida La Pata or Ortega Highway (cont)									
FEC-APV Alternatives (Initial and Ultimate)									
AM from I-5	26	33	52	74	72	115	123	131	205
Difference	-2	-4	-5	-5	-6	-6	-7	-6	-6
% Difference	-7%	-11%	-9%	-6%	-8%	-5%	-5%	-4%	-3%
AM to I-5	22	29	44	72	76	147	151	141	221
Difference	0	-1	-1	-1	-1	-3	-1	-1	-1
% Difference	0%	-3%	-2%	-1%	-1%	-2%	-1%	-1%	0%
PM from I-5	26	33	51	81	81	151	155	154	236
Difference	-1	-2	-1	-1	-2	-4	-2	-2	-2
% Difference	-4%	-6%	-2%	-1%	-2%	-3%	-1%	-1%	-1%
PM to I-5	29	35	53	78	75	129	136	144	229
Difference	-2	-3	-4	-3	-4	-4	-4	-4	-4
% Difference	-6%	-8%	-7%	-4%	-5%	-3%	-3%	-3%	-2%
CC-ALPV AND A7C-ALPV Alternatives (Initial and Ultimate)									
AM from I-5	26	33	52	74	72	116	123	130	205
Difference	-2	-4	-5	-5	-6	-5	-7	-7	-6
% Difference	-7%	-11%	-9%	-6%	-8%	-4%	-5%	-5%	-3%
AM to I-5	22	29	44	72	76	149	150	141	221
Difference	0	-1	-1	-1	-1	-1	-2	-1	-1
% Difference	0%	-3%	-2%	-1%	-1%	-1%	-1%	-1%	0%
PM from I-5	26	34	50	80	80	153	155	153	235
Difference	-1	-1	-2	-2	-3	-2	-2	-3	-3
% Difference	-4%	-3%	-4%	-2%	-4%	-1%	-1%	-2%	-1%
PM to I-5	29	36	54	79	76	129	136	145	229
Difference	-2	-2	-3	-2	-3	-4	-4	-3	-4
% Difference	-6%	-5%	-5%	-2%	-4%	-3%	-3%	-2%	-2%

Table 4-44 (cont)
SUMMARY OF 2025 TRAVEL TIMES TO AND FROM I-5 AT THE ORANGE/SAN DIEGO COUNTY BORDER

Alternatives and Difference (a)	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
----- Average Travel Time in Minutes Between I-5 at the County Border and Each Geographic Area (b) -----									
Build Alternatives with FTC-S Toll Road from Oso Parkway to Cristianitos Road, Avenida Pico, Avenida La Pata or Ortega Highway (cont)									
FEC-OHV Alternatives (Initial and Ultimate)									
AM from I-5	28	37	57	79	77	120	129	136	211
Difference	0	0	0	0	-1	-1	-1	-1	0
% Difference	0%	0%	0%	0%	-1%	-1%	-1%	-1%	0%
AM to I-5	22	30	45	73	77	150	152	142	222
Difference	0	0	0	0	0	0	0	0	0
% Difference	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM from I-5	27	35	52	82	83	155	157	156	238
Difference	0	0	0	0	0	0	0	0	0
% Difference	0%	0%	0%	0%	0%	0%	0%	0%	0%
PM to I-5	30	38	56	81	78	133	139	147	232
Difference	-1	0	-1	0	-1	0	-1	-1	-1
% Difference	-3%	0%	-2%	0%	-1%	0%	-1%	-1%	0%
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)									
AM from I-5	28	37	56	78	77	121	128	136	210
Difference	0	0	-1	-1	-1	0	-2	-1	-1
% Difference	0%	0%	-2%	-1%	-1%	0%	-2%	-1%	0%
AM to I-5	22	30	45	73	77	151	152	142	222
Difference	0	0	0	0	0	1	0	0	0
% Difference	0%	0%	0%	0%	0%	1%	0%	0%	0%
PM from I-5	27	35	52	82	82	155	156	155	237
Difference	0	0	0	0	-1	0	-1	-1	-1
% Difference	0%	0%	0%	0%	-1%	0%	-1%	-1%	0%
PM to I-5	30	38	56	81	78	133	139	147	232
Difference	-1	0	-1	0	-1	0	-1	-1	-1
% Difference	-3%	0%	-2%	0%	-1%	0%	-1%	-1%	0%

Table 4-44 (cont)
SUMMARY OF 2025 TRAVEL TIMES TO AND FROM I-5 AT THE ORANGE/SAN DIEGO COUNTY BORDER

Alternatives and Difference (a)	----- Average Travel Time in Minutes Between I-5 at the County Border and Each Geographic Area (b) -----								
	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
Build Alternatives without the FTC-S Toll Road									
AIO Alternative									
AM from I-5	27	34	54	76	74	117	125	133	207
Difference	-1	-3	-3	-3	-4	-4	-5	-4	-4
% Difference	-4%	-8%	-5%	-4%	-5%	-3%	-4%	-3%	-2%
AM to I-5	22	28	44	72	76	147	151	141	221
Difference	0	-2	-1	-1	-1	-3	-1	-1	-1
% Difference	0%	-7%	-2%	-1%	-1%	-2%	-1%	-1%	0%
PM from I-5	26	33	50	80	81	152	155	154	236
Difference	-1	-2	-2	-2	-2	-3	-2	-2	-2
% Difference	-4%	-6%	-4%	-2%	-2%	-2%	-1%	-1%	-1%
PM to I-5	29	36	55	80	77	130	138	146	231
Difference	-2	-2	-2	-1	-2	-3	-2	-2	-2
% Difference	-6%	-5%	-4%	-1%	-3%	-2%	-1%	-1%	-1%
AIP Alternative									
AM from I-5	22	28	44	65	63	109	113	121	195
Difference	-6	-9	-13	-14	-15	-12	-17	-16	-16
% Difference	-21%	-24%	-23%	-18%	-19%	-10%	-13%	-12%	-8%
AM to I-5	20	26	41	69	73	145	147	137	217
Difference	-2	-4	-4	-4	-4	-5	-5	-5	-5
% Difference	-9%	-13%	-9%	-5%	-5%	-3%	-3%	-4%	-2%
PM from I-5	22	28	44	73	73	146	147	145	227
Difference	-5	-7	-8	-9	-10	-9	-10	-11	-11
% Difference	-19%	-20%	-15%	-11%	-12%	-6%	-6%	-7%	-5%
PM to I-5	22	28	44	68	64	120	124	132	217
Difference	-9	-10	-13	-13	-15	-13	-16	-16	-16
% Difference	-29%	-26%	-23%	-16%	-19%	-10%	-11%	-11%	-7%

Table 4-44 (cont)
 SUMMARY OF 2025 TRAVEL TIMES TO AND FROM I-5 AT THE ORANGE/SAN DIEGO COUNTY BORDER

Alternatives and Difference (a)	Average Travel Time in Minutes Between I-5 at the County Border and Each Geographic Area (b)								
	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
Build Alternatives without the FTC-S Toll Road (cont)									
I-5 Alternative									
AM from I-5	21	27	44	65	62	108	112	120	194
Difference	-7	-10	-13	-14	-16	-13	-18	-17	-17
% Difference	-25%	-27%	-23%	-18%	-21%	-11%	-14%	-12%	-8%
AM to I-5	20	27	41	69	73	147	147	137	217
Difference	-2	-3	-4	-4	-4	-3	-5	-5	-5
% Difference	-9%	-10%	-9%	-5%	-5%	-2%	-3%	-4%	-2%
PM from I-5	21	28	43	73	73	146	146	145	226
Difference	-6	-7	-9	-9	-10	-9	-11	-11	-12
% Difference	-22%	-20%	-17%	-11%	-12%	-6%	-7%	-7%	-5%
PM to I-5	21	27	43	67	64	119	123	131	216
Difference	-10	-11	-14	-14	-15	-14	-17	-17	-17
% Difference	-32%	-29%	-25%	-17%	-19%	-11%	-12%	-11%	-7%

Note: The travel time information summarized here is based on Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

(a) Compared to the No Action Alternative

(b) The geographic areas are as follows:

- Area 1: Southwest Orange County (Regional Statistical Area (RSA) D-40)
- Area 2: Southeast Orange County (RSA C-43)
- Area 3: Central Orange County (RSAs E-44, F-39 and G-42)
- Area 4: Northwest Orange County (RSAs H-37, I-38 and J-35)
- Area 5: Northeast Orange County (RSAs A-36 and B-41)
- Area 6: Riverside County
- Area 7: San Bernardino County
- Area 8: Los Angeles County
- Area 9: Ventura County

- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata (travel times to and from southern Orange County reduced by 2 to 4 minutes or 5 to 11 percent, travel times to and from central and northern Orange County reduced by 2 to 6 minutes or 2 to 9 percent, and travel times to and from areas beyond Orange County reduced by 3 to 7 minutes or 2 to 5 percent).
- The AIO Alternative (travel times to and from southern Orange County reduced by 1 to 3 minutes or 4 to 8 percent, travel times to and from central and northern Orange County reduced by 1 to 4 minutes or 1 to 5 percent, and travel times to and from areas beyond Orange County reduced by 2 to 5 minutes or 1 to 4 percent).
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway (travel times to and from southern Orange County reduced by 1 minute or less or 3 percent or less, travel times to and from central and northern Orange County reduced by 1 minute or less or 2 percent or less, and travel times to and from areas beyond Orange County reduced by 2 minutes or less or 2 percent or less).

As noted earlier in Section 1.2 (Overview of the Traffic Analysis), this point to point travel time savings comparison is only one measure for evaluating the beneficial and adverse impacts of the Build Alternatives. As described in this Section, a full range of measures of effectiveness, including this measure, were assessed, which allow for a greater understanding of the beneficial and adverse impact of the Build Alternatives on the circulation system throughout the SOCTIIP study area.

SECTION 5.0 MITIGATION MEASURES

5.1 INTRODUCTION

In this Section, mitigation measures are presented for the circulation system facilities identified in Section 4.0 (Long-Range Analysis) as being adversely impacted by the SOCTIIP Build Alternatives based on long-range (year 2025) traffic conditions. As discussed in Section 4.2 (Long-Range Traffic Conditions), the adverse impacts of the Build Alternatives are separated into two categories, direct and indirect impacts. The mitigation measures presented in the following Sections treat direct impacts and indirect impacts differently.

5.2 MITIGATION MEASURES FOR INDIRECT ADVERSE IMPACTS

The indirect adverse impacts of the SOCTIIP Build Alternatives are caused by re-directed traffic that would otherwise be using another part of the circulation system under the No Action Alternative. For example, traffic using I-5 under a given Build Alternative that, under the No Action Alternative, would impact local arterial intersections because of congestion on I-5 results in an indirect impact on I-5. In such cases, the Build Alternative increases traffic at I-5 ramps and ramp intersections while reducing traffic at arterial intersections. This shift in traffic results in beneficial effects at arterial intersections and indirect adverse impacts at I-5 ramps and ramp intersections.

The I-5 ramps and ramp intersections that are indirectly impacted by the Build Alternatives will experience increases in traffic as a result of future land use development in the study area and regional traffic growth. Such increases in traffic are addressed as part of the planning processes carried out in Orange County with respect to land use development and transportation improvements, for example the Orange County Congestion Management Program (CMP) and Growth Management Plan (GMP).

Caltrans is responsible for the design, construction, maintenance, and operation of the California State Highway System, which includes I-5. In the case of I-5 interchanges (i.e., ramps and ramp intersections) that are indirectly impacted by the Build Alternatives, state highway improvements, including improvements to ramps, can only be implemented through Caltrans because Caltrans is the owner of the state highways. Improvements related to increases in traffic demand over time are typically either implemented solely by Caltrans, or, in some circumstances, by a collaboration between Caltrans and a local jurisdiction, with a nexus being established between future land uses and the I-5 improvements that are needed.

Proposals for implementing improvements at each of the I-5 interchanges (Avenida Pico, Camino Capistrano, Ortega Highway and Stonehill Drive) where indirect adverse impacts occur are currently under study by Caltrans. It is expected that Caltrans will implement future improvements to the ramps and ramp intersections at these interchanges because those ramps and ramp intersections will need improvements in the future with or without the Build Alternatives. These expected improvements to the four interchanges mentioned above implemented by

Caltrans will mitigate the indirect adverse impacts of the Build Alternatives. There is no responsibility for the Build Alternatives to participate in the implementation of such improvements because there is no nexus between the increase in traffic that is forecast at the locations where indirect adverse impacts occur and the roadway facilities that are constructed in the Build Alternatives.

5.3 MITIGATION MEASURES FOR DIRECT ADVERSE IMPACTS

Direct adverse impacts have a nexus to the specific roadway facilities featured in a given Build Alternative and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified to mitigate such direct adverse impacts. The following Sections summarize the physical roadway improvements proposed to mitigate the long-range (year 2025) direct adverse impacts of the SOCTIIP Build Alternatives.

5.3.1 FEC-INITIAL AND ULTIMATE ALTERNATIVES

No mitigation measures are required for the FEC-Initial and Ultimate Alternatives because no direct adverse impacts are forecast to occur under the FEC-Initial and Ultimate Alternatives.

5.3.2 FEC-M-INITIAL AND ULTIMATE ALTERNATIVES

No mitigation measures are required for the FEC-M-Initial and Ultimate Alternatives because no direct adverse impacts are forecast to occur under the FEC-M-Initial and Ultimate Alternatives.

5.3.3 FEC-W-INITIAL AND ULTIMATE ALTERNATIVES

No mitigation measures are required for the FEC-W-Initial and Ultimate Alternatives because no direct adverse impacts are forecast to occur under the FEC-W-Initial and Ultimate Alternatives.

5.3.4 FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES

Physical improvements that address the direct adverse arterial intersection and freeway ramp impacts identified under year 2025 conditions based on the FEC-TV-Initial and Ultimate Alternatives are summarized in Table 5-1. Peak hour freeway ramp V/C ratios with and without mitigation are summarized in Appendix E, peak hour intersection ICU values with and without mitigation are summarized in Appendix F, and ICU worksheets are provided in Appendix G.

A direct adverse impact is considered to be mitigated when the proposed mitigation improves the facility to an acceptable LOS. As Table 5-1 indicates, none of the arterial intersection and freeway ramp locations where direct adverse impacts occur under the FEC-TV-Initial and Ultimate Alternatives are forecast to operate at an acceptable LOS after mitigation. Therefore, the direct adverse impacts of the FEC-TV-Initial and Ultimate Alternatives at those locations remain unmitigated. The I-5 northbound ramp intersection at Avenida Pico is a location that is reconstructed as part of the FEC-TV-Initial and Ultimate Alternatives. That location is not forecast to operate at an acceptable LOS as currently designed and no additional conventional improvements could be identified.

Table 5-1

SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS
OF THE FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS			
I-5 northbound ramps & Avd Pico	1,3,4	No conventional intersection improvements could be identified.	No
FREEWAY RAMPS			
I-5 at Avd Pico (northbound on-ramp)	1,3,4	Widen to a two-lane on-ramp.	No
I-5 at Avd Pico (southbound off-ramp)	1,3,4	Add second auxiliary lane from I-5 to the off-ramp.	No

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

5.3.5 FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES

No mitigation measures are required for the FEC-CV-Initial and Ultimate Alternatives because no direct adverse impacts are forecast to occur under the FEC-CV-Initial and Ultimate Alternatives.

5.3.6 FEC-AFV-INITIAL AND ULTIMATE ALTERNATIVES

No mitigation measures are required for the FEC-AFV-Initial and Ultimate Alternatives because no direct adverse impacts are forecast to occur under the FEC-AFV-Initial and Ultimate Alternatives.

5.3.7 FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES

Physical improvements that address the direct adverse arterial intersection impacts identified under year 2025 conditions based on the FEC-OHV-Initial and Ultimate Alternatives are summarized in Table 5-2. Peak hour intersection ICU values with and without mitigation are summarized in Appendix F, and ICU worksheets are provided in Appendix G. A direct adverse impact is considered to be mitigated when the proposed mitigation improves the facility to an acceptable LOS. As Table 5-2 indicates, all of the arterial intersection locations where direct adverse impacts occur under the FEC-OHV-Initial and Ultimate Alternatives are forecast to operate at an acceptable LOS after mitigation.

5.3.8 FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES

Physical improvements that address the direct adverse arterial intersection and freeway ramp impacts identified under year 2025 conditions based on the FEC-APV-Initial and Ultimate Alternatives are summarized in Table 5-3. Peak hour freeway ramp V/C ratios with and without mitigation are summarized in Appendix E, peak hour intersection ICU values with and without mitigation are summarized in Appendix F, and ICU worksheets are provided in Appendix G. A direct adverse impact is considered to be mitigated when the proposed mitigation improves the facility to an acceptable LOS. As Table 5-3 indicates, the arterial intersection and freeway ramp locations where direct adverse impacts occur under the FEC-APV-Initial and Ultimate Alternatives are forecast to operate at an acceptable LOS after mitigation with the exception of the following locations where the impacts remain unmitigated:

- Intersection of Avenida Pico and I-5 northbound ramps (Scenario 1 only).
- I-5 southbound on-ramp at Avenida Pico.

5.3.9 CC-INITIAL AND ULTIMATE ALTERNATIVES

Physical improvements that address the direct adverse arterial intersection and freeway ramp impacts identified under year 2025 conditions based on the CC-Initial and Ultimate Alternatives are summarized in Table 5-4. Peak hour freeway ramp V/C ratios with and without mitigation are summarized in Appendix E, peak hour intersection ICU values with and without mitigation are summarized in Appendix F, and ICU worksheets are provided in Appendix G.

Table 5-2

SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS
OF THE FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS			
Antonio Pkwy-La Pata Ave & Ortega Hwy	1	Add second westbound through lane and convert second southbound through lane to a free right-turn lane.	Yes
Antonio Pkwy & Oso Pkwy	1	Add fourth southbound through lane and third northbound left-turn lane, and convert eastbound right-turn lane to a free right-turn lane.	Yes
I-5 southbound ramps & Avd Pico	3	Add second westbound left-turn lane.	Yes
La Novia Ave & Ortega Hwy	1	Add second westbound left-turn lane.	Yes
La Pata Ave & San Juan Creek Rd	3	Add second eastbound left-turn lane.	Yes

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Table 5-3

SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS
OF THE FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS			
Avd La Pata & Avd Pico	1	Add second eastbound left-turn lane and convert second northbound through lane to shared second through/ second right-turn lane.	Yes
Avd Vista Hermosa & Avd Pico	1	Add westbound right-turn lane.	Yes
I-5 northbound ramps & Avd Pico	1,3	Add third eastbound through lane and second eastbound left-turn lane.	No under Scenario 1 Yes under Scenario 3
I-5 southbound ramps & Avd Pico	1,3	Reconstruct intersection as part of ramp improvement listed below to provide separate southbound on-ramps from eastbound and westbound Avd Pico.	Yes
FREEWAY RAMPS			
I-5 at Avd Pico (northbound off-ramp)	1,3	Add second drop lane from I-5 to the off-ramp.	Yes
I-5 at Avd Pico (northbound on-ramp)	1	Widen to a two-lane on-ramp.	Yes
I-5 at Avd Pico (southbound on-ramp)	1,3	Provide separate on-ramps from eastbound and westbound Avd Pico.	No

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Table 5-4

SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS
OF THE CC-INITIAL AND ULTIMATE ALTERNATIVES

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS			
I-5 northbound ramps & Avd Pico	1,3,4	No conventional intersection improvements could be identified.	No
FREEWAY RAMPS			
I-5 at Avd Pico (northbound on-ramp)	1,3,4	Widen to a two-lane on-ramp.	No
I-5 at Avd Pico (southbound off-ramp)	1,3,4	Add second auxiliary lane from I-5 to the off-ramp.	No

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

A direct adverse impact is considered to be mitigated when the proposed mitigation improves the facility to an acceptable LOS. As Table 5-4 indicates, none of the arterial intersection and freeway ramp locations where direct adverse impacts occur under the CC-Initial and Ultimate Alternatives are forecast to operate at an acceptable LOS after mitigation. Therefore, the direct adverse impacts of the CC-Initial and Ultimate Alternatives at those locations remain unmitigated. The I-5 northbound ramp intersection at Avenida Pico is a location that is reconstructed as part of the CC-Initial and Ultimate Alternatives. That location is not forecast to operate at an acceptable LOS as currently designed and no additional conventional improvements could be identified.

5.3.10 CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES

Physical improvements that address the direct adverse arterial intersection and freeway ramp impacts identified under year 2025 conditions based on the CC-ALPV-Initial and Ultimate Alternatives are summarized in Table 5-5. Peak hour freeway ramp V/C ratios with and without mitigation are summarized in Appendix E, peak hour intersection ICU values with and without mitigation are summarized in Appendix F, and ICU worksheets are provided in Appendix G. A direct adverse impact is considered to be mitigated when the proposed mitigation improves the facility to an acceptable LOS. As Table 5-5 indicates, the arterial intersection and freeway ramp locations where direct adverse impacts occur under the CC-ALPV-Initial and Ultimate Alternatives are forecast to operate at an acceptable LOS after mitigation with the exception of the following locations where the impacts remain unmitigated:

- Intersection of Avenida Pico and I-5 northbound ramps (Scenario 1 only).
- I-5 southbound on-ramp at Avenida Pico.

5.3.11 CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES

Physical improvements that address the direct adverse arterial intersection impacts identified under year 2025 conditions based on the CC-OHV-Initial and Ultimate Alternatives are summarized in Table 5-6. Peak hour intersection ICU values with and without mitigation are summarized in Appendix F, and ICU worksheets are provided in Appendix G. A direct adverse impact is considered to be mitigated when the proposed mitigation improves the facility to an acceptable LOS. As Table 5-6 indicates, all of the arterial intersection locations where direct adverse impacts occur under the CC-OHV-Initial and Ultimate Alternatives are forecast to operate at an acceptable LOS after mitigation.

5.3.12 A7C-INITIAL AND ULTIMATE ALTERNATIVES

Physical improvements that address the direct adverse arterial intersection and freeway ramp impacts identified under year 2025 conditions based on the A7C-Initial and Ultimate Alternatives are summarized in Table 5-7. Peak hour freeway ramp V/C ratios with and without mitigation are summarized in Appendix E, peak hour intersection ICU values with and without mitigation are summarized in Appendix F, and ICU worksheets are provided in Appendix G.

Table 5-5

SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS
OF THE CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS			
Avd La Pata & Avd Pico	1,3	Add second eastbound left-turn lane and convert second northbound through lane to shared second through/ second right-turn lane.	Yes
Avd La Pata & Avd Vista Hermosa	1,3	Add third eastbound through lane and second westbound left-turn lane.	Yes
Avd Talega & Avd Vista Hermosa	1	Add third westbound through lane.	Yes
Avd Vista Hermosa & Avd Pico	1	Add westbound right-turn lane and convert third eastbound through lane to third eastbound left-turn lane.	Yes
Cm Vera Cruz & Avd Vista Hermosa	1	Add third eastbound and westbound through lanes and second southbound left-turn lane.	Yes
I-5 northbound ramps & Avd Pico	1,3	Add third eastbound through lane and second eastbound left-turn lane.	No under Scenario 1 Yes under Scenario 3
I-5 southbound ramps & Avd Pico	1,3	Reconstruct intersection as part of ramp improvement listed below to provide separate southbound on-ramps from eastbound and westbound Avd Pico.	Yes
FREEWAY RAMPS			
I-5 at Avd Pico (northbound off-ramp)	1,3	Add second drop lane from I-5 to the off-ramp.	Yes
I-5 at Avd Pico (northbound on-ramp)	1,3	Widen to a two-lane on-ramp.	Yes
I-5 at Avd Pico (southbound on-ramp)	1,3	Provide separate on-ramps from eastbound and westbound Avd Pico.	No

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Table 5-6

SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS
OF THE CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS			
Antonio Pkwy & Crown Valley Pkwy	3	Add fourth southbound through lane.	Yes
Antonio Pkwy-La Pata Ave & Ortega Hwy	1	Add second westbound through lane and convert second southbound through lane to a free right-turn lane.	Yes
Antonio Pkwy-La Pata Ave & Ortega Hwy	3	Provide free southbound right-turn lane and free northbound right-turn lane.	Yes
Avd La Pata & Avd Pico	3	Add third northbound through lane and second eastbound left-turn lane.	Yes
I-5 southbound ramps & Avd Pico	3	Add second westbound left-turn lane.	Yes
I-5 northbound ramps & Ortega Hwy	1	Add third eastbound through lane and northbound left-turn lane, and convert second westbound through lane to shared second through/second right-turn lane.	Yes
I-5 southbound ramps & Ortega Hwy	1	Add second westbound left-turn lane.	Yes
La Novia Ave & Ortega Hwy	1	Add second westbound left-turn lane.	Yes
La Novia Ave & San Juan Creek Rd	1	Add second westbound through lane and southbound right-turn lane.	Yes
La Pata Ave & San Juan Creek Rd	3	Add second eastbound left-turn lane.	Yes
Rancho Viejo Rd & Ortega Hwy	1	Add third eastbound through lane.	Yes
Valle & La Novia/I-5 northbound ramps	3	Add second eastbound left-turn lane.	Yes

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Table 5-7

SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS
OF THE A7C-INITIAL AND ULTIMATE ALTERNATIVES

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS			
I-5 northbound ramps & Avd Pico	1,3	No conventional intersection improvements could be identified.	No
FREEWAY RAMPS			
I-5 at Avd Pico (northbound on-ramp)	1,3	Widen to a two-lane on-ramp.	No
I-5 at Avd Pico (southbound off-ramp)	1,3	Add second auxiliary lane from I-5 to the off-ramp.	No

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

A direct adverse impact is considered to be mitigated when the proposed mitigation improves the facility to an acceptable LOS. As Table 5-7 indicates, none of the arterial intersection and freeway ramp locations where direct adverse impacts occur under the A7C-Initial and Ultimate Alternatives are forecast to operate at an acceptable LOS after mitigation. Therefore, the direct adverse impacts of the A7C-Initial and Ultimate Alternatives at those locations remain unmitigated. The I-5 northbound ramp intersection at Avenida Pico is a location that is reconstructed as part of the A7C-Initial and Ultimate Alternatives. That location is not forecast to operate at an acceptable LOS as currently designed and no additional conventional improvements could be identified.

5.3.13 A7C-7SV-INITIAL AND ULTIMATE ALTERNATIVES

The long-range direct adverse impacts of the A7C-7SV-Initial and Ultimate Alternatives are essentially the same as the A7C-Initial and Ultimate Alternatives as discussed in Section 4.2.3.14. Therefore, the direct adverse impact mitigation measures for the A7C-7SV-Initial and Ultimate Alternatives are the same as the A7C-Initial and Ultimate Alternatives mitigation measures presented in Section 5.3.12.

5.3.14 A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES

No mitigation measures are required for the A7C-FECV-Initial and Ultimate Alternatives because no direct adverse impacts are forecast to occur under the A7C-FECV-Initial and Ultimate Alternatives.

5.3.15 A7C-FEC-M-INITIAL AND ULTIMATE ALTERNATIVES

No mitigation measures are required for the A7C-FEC-M-Initial and Ultimate Alternatives because no direct adverse impacts are forecast to occur under the A7C-FEC-M-Initial and Ultimate Alternatives.

5.3.16 A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES

No mitigation measures are required for the A7C-FECV-C-Initial and Ultimate Alternatives because no direct adverse impacts are forecast to occur under the A7C-FECV-C-Initial and Ultimate Alternatives.

5.3.17 A7C-FECV-AF-INITIAL AND ULTIMATE ALTERNATIVES

No mitigation measures are required for the A7C-FECV-C-Initial and Ultimate Alternatives because no direct adverse impacts are forecast to occur under the A7C-FECV-C-Initial and Ultimate Alternatives.

5.3.18 A7C-OHV-INITIAL AND ULTIMATE ALTERNATIVES

The long-range direct adverse impacts of the A7C-OHV-Initial and Ultimate Alternatives are essentially the same as the CC-OHV-Initial and Ultimate Alternatives as discussed Section

4.2.3.19. Therefore, the direct adverse impact mitigation measures for the A7C-OHV-Initial and Ultimate Alternatives are the same as the CC-OHV-Initial and Ultimate Alternatives mitigation measures presented in Section 5.3.11.

5.3.19 A7C-ALPV-INITIAL AND ULTIMATE ALTERNATIVES

The long-range direct adverse impacts of the A7C-ALPV-Initial and Ultimate Alternative are essentially the same as the CC-ALPV-Initial and Ultimate Alternatives as discussed in Section 4.2.3.20. Therefore, the direct adverse impact mitigation measures for the A7C-ALPV-Initial and Ultimate Alternatives are the same as the CC-ALPV-Initial and Ultimate Alternatives mitigation measures presented in Section 5.2.10.

5.3.20 AIO ALTERNATIVE

Physical improvements that address the direct adverse arterial intersection and freeway ramp impacts identified under year 2025 conditions based on the AIO Alternative are summarized in Table 5-8. Peak hour freeway ramp V/C ratios with and without mitigation are summarized in Appendix E, peak hour intersection ICU values with and without mitigation are summarized in Appendix F, and ICU worksheets are provided in Appendix G. The intersection improvements listed in Table 5-8 for locations along Antonio Parkway and La Pata Avenue could potentially be considered elements of the AIO Alternative (i.e., improvements that would be implemented as part of the development of the AIO Alternative) because they are located along the arterials where upgraded roadway classifications are proposed in this Alternative.

A direct adverse impact is considered to be mitigated when the proposed mitigation improves the facility to an acceptable LOS. The arterial intersection and freeway ramp locations where direct adverse impacts occur under the AIO Alternative, other than the four potentially grade separated intersection locations which are discussed separately below, are forecast to operate at an acceptable LOS after mitigation except for the following locations where the impacts remain unmitigated:

- Intersection of SR 241 northbound ramps and Oso Parkway.
- I-5 southbound off-ramp at Crown Valley Parkway.
- SR 241 northbound on-ramp at Oso Parkway (Scenario 4 only).

Potential Grade Separated Intersections

The mitigation improvements listed in Table 5-8 for four intersection locations (Antonio Parkway/Oso Parkway, Antonio Parkway/Crown Valley Parkway, Antonio Parkway-La Pata Avenue/Ortega Highway, and Avenida La Pata/Avenida Pico) involve both an at-grade improvement plan and a grade separated improvement plan. In general, the at-grade improvement plan at each location involves the implementation of fairly non-conventional intersection enhancements such as providing triple left-turn lanes and double or free right-turn lanes whereas more conventional lane configurations (e.g., dual left-turn lanes, single right-turn lanes, etc.) are assumed for the grade separated improvement plans. The following summarizes

Table 5-8

SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS OF THE AIO ALTERNATIVE

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS			
Antonio Pkwy & Crown Valley Pkwy	3	At-grade improvement plan: Add third eastbound and northbound left-turn lanes and provide eastbound free right-turn lane. Grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy.	No with at-grade plan. Yes with grade separated plan.
Antonio Pkwy & Crown Valley Pkwy	4	At-grade improvement plan: Add fourth eastbound and westbound through lanes and third northbound, southbound, eastbound and westbound left-turn lanes, and provide westbound free right-turn lane. Grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy.	No with at-grade plan. Yes with grade separated plan.
Antonio Pkwy-La Pata Ave & Ortega Hwy	3	At-grade improvement plan: Provide southbound free right-turn lane. Grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy-La Pata Ave.	Yes
Antonio Pkwy-La Pata Ave & Ortega Hwy	4	At-grade improvement plan: Add third eastbound and westbound through lanes and third southbound and westbound left-turn lanes, and provide northbound, southbound and westbound free right-turn lanes. Grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy-La Pata Ave.	No

Table 5-8 (cont)
SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS OF THE AIO ALTERNATIVE

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS (cont)			
Antonio Pkwy & North River Rd	3	Add third southbound and westbound left-turn lanes.	Yes
Antonio Pkwy & Oso Pkwy	3,4	At-grade improvement plan: Add fourth eastbound and westbound through lanes and third northbound, eastbound and westbound left-turn lanes, and provide northbound and westbound free right-turn lanes.	No
		Grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy.	
Avd Empresa & Avd De Las Banderas	3,4	Add second eastbound left-turn lane.	Yes
Avd Empresa & Santa Margarita Pkwy	3,4	Convert eastbound right-turn lane to a free right-turn lane and add northbound shared third left-turn lane/through lane.	Yes
Avd La Pata & Avd Pico	3,4	At-grade improvement plan: Add third northbound through lane and second and third eastbound left-turn lanes, and provide westbound free right-turn lane	Yes
		Grade separated improvement plan: Signalized control of all intersection movements except eastbound and westbound through traffic on Avd Pico.	
Avd La Pata & Avd Vista Hermosa	3,4	Add fourth southbound through lane, second southbound, eastbound and westbound left-turn lanes, and westbound right-turn lane.	Yes
Felipe Rd & Oso Pkwy	3,4	Add fourth eastbound and westbound through lanes and second southbound left-turn lane, and convert second northbound through lane to shared second through/ second right-turn lane.	Yes
I-5 northbound ramps & Avd Pico	3,4	Add third eastbound through lane.	Yes
I-5 southbound ramps & Avd Pico	3,4	Add second westbound left-turn lane.	Yes
Marguerite Pkwy & Jeronimo Rd	4	Add second northbound left-turn lane.	Yes

Table 5-8 (cont)
SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS OF THE AIO ALTERNATIVE

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS (cont)			
SR 241 northbound ramps & Antonio Pkwy	3	Convert third westbound through lane to shared third through/second right-turn lane.	Yes
SR 241 northbound ramps & Oso Pkwy	3,4	Add third westbound through lane, second eastbound left-turn lane, and second eastbound right-turn lane.	No
SR 241 southbound ramps & Oso Pkwy	4	Add third eastbound through lane.	Yes
FREEWAY/TOLLWAY RAMPS			
I-5 at Avd Pico (southbound on-ramp)	3,4	Widen to a two-lane on-ramp.	Yes
I-5 at Crown Valley (northbound direct on-ramp)	3	Widen to a two-lane on-ramp.	Yes
I-5 at Crown Valley (southbound off-ramp)	3	Add second auxiliary lane from I-5 to the off-ramp.	No
I-5 at Ortega Hwy (northbound on-ramp)	4	Widen to a two-lane ramp or provide separate on-ramps from eastbound and westbound Ortega Hwy.	Yes
I-5 at Oso Pkwy (southbound off-ramp)	3	Add second drop lane from I-5 to the off-ramp.	Yes
SR 241 at Antonio Pkwy (northbound on-ramp)	3	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	Yes
SR 241 at Antonio Pkwy (southbound off-ramp)	3,4	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	Yes
SR 241 at Oso Pkwy (northbound on-ramp)	3,4	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	Yes under Scenario 3 No under Scenario 4
SR 241 at Oso Pkwy (southbound off-ramp)	4	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	Yes

(a) The assumptions for each scenario are as follows:

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

the effectiveness of the at-grade and grade separated plans in improving the LOSs that are forecast at the four intersection locations under the AIO Alternative.

- Antonio Parkway and Crown Valley Parkway: In both of the scenarios that were analyzed (i.e., the 14,000 DU proposed RMV plan and the 21,000 DU OCP-2000 plan for RMV), the at-grade improvement plan does not result in acceptable LOSs (i.e., the direct adverse impact of the AIO Alternative at this intersection remains unmitigated), whereas the grade-separated improvement plan does result in acceptable LOSs (i.e., the direct adverse impact of the AIO Alternative at this intersection is mitigated). Note that separate improvement plans are listed for the two analysis scenarios because the extension of Crown Valley Parkway east of Antonio Parkway is assumed in one scenario (the 21,000 DU OCP-2000 plan for RMV) and not the other (the 14,000 DU proposed RMV plan).
- Antonio Parkway-La Pata Avenue and Ortega Highway: This intersection is not adversely impacted by the AIO Alternative under the scenario based on the 14,000 DU proposed RMV plan (i.e., the AIO Alternative does not worsen the deficient LOS that is forecast at this location under the No Action Alternative), however, at-grade and grade separated improvement plans under this scenario are listed in Table 5-8 to demonstrate the types of improvements that are needed to provide acceptable LOSs (i.e. both the at-grade and grade separated plans result in acceptable LOSs under this scenario). The at-grade and grade separated improvement plans proposed for the scenario based on the 21,000 DU OCP-2000 plan for RMV do not result in acceptable LOSs (i.e., the direct adverse impact of the AIO Alternative at this intersection remains unmitigated under this scenario).
- Antonio Parkway and Oso Parkway: In both of the scenarios that were analyzed (i.e., the 14,000 DU proposed RMV plan and the 21,000 DU OCP-2000 plan for RMV), neither the at-grade nor the grade separated improvement plans result in acceptable LOSs (i.e., the direct adverse impact of the AIO Alternative at this intersection remains unmitigated).
- Avenida La Pata and Avenida Pico: In both of the scenarios that were analyzed (i.e., the 14,000 DU proposed RMV plan and the 21,000 DU OCP-2000 plan for RMV), the at-grade and the grade separated improvement plans both result in acceptable LOSs (i.e., the direct adverse impact of the AIO Alternative at this intersection is mitigated).

5.3.21 AIP ALTERNATIVE

Physical improvements that address the direct adverse arterial intersection and freeway ramp impacts identified under year 2025 conditions based on the AIP Alternative are summarized in Table 5-9. Peak hour freeway ramp V/C ratios with and without mitigation are summarized in Appendix E, peak hour intersection ICU values with and without mitigation are summarized in Appendix F, and ICU worksheets are provided in Appendix G. The intersection improvements listed in Table 5-9 for locations along Antonio Parkway and La Pata Avenue could potentially be

Table 5-9

SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS OF THE AIP ALTERNATIVE

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS			
Antonio Pkwy & Crown Valley Pkwy	3	At-grade improvement plan: Add third eastbound and northbound left-turn lanes and provide eastbound free right-turn lane. Grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy.	No with at-grade plan. Yes with grade separated plan.
Antonio Pkwy & Crown Valley Pkwy	4	At-grade improvement plan: Add fourth eastbound and westbound through lanes and third northbound, southbound, eastbound and westbound left-turn lanes, and provide westbound free right-turn lane. Grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy.	No with at-grade plan. Yes with grade separated plan.
Antonio Pkwy-La Pata Ave & Ortega Hwy	3	At-grade improvement plan: Provide southbound free right-turn lane. Grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy-La Pata Ave.	Yes
Antonio Pkwy-La Pata Ave & Ortega Hwy	4	At-grade improvement plan: Add third eastbound and westbound through lanes and third southbound and westbound left-turn lanes, and provide northbound, southbound and westbound free right-turn lanes. Grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy-La Pata Ave.	No

Table 5-9 (cont)
SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS OF THE AIP ALTERNATIVE

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS (cont)			
Antonio Pkwy & North River Rd	3	Add third southbound and westbound left-turn lanes.	Yes
Antonio Pkwy & Oso Pkwy	3,4	At-grade improvement plan: Add fourth eastbound and westbound through lanes and third northbound, eastbound and westbound left-turn lanes, and provide northbound and westbound free right-turn lanes.	No
		Grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy.	
Avd Empresa & Avd De Las Banderas	3	Add second eastbound left-turn lane.	Yes
Avd Empresa & Santa Margarita Pkwy	3,4	Convert eastbound right-turn lane to a free right-turn lane and add northbound shared third left-turn lane/through lane.	Yes
Avd La Pata & Avd Pico	3,4	At-grade improvement plan: Add third northbound through lane and second and third eastbound left-turn lanes, and provide westbound free right-turn lane.	Yes
		Grade separated improvement plan: Signalized control of all intersection movements except eastbound and westbound through traffic on Avd Pico.	
Avd La Pata & Avd Vista Hermosa	3,4	Add fourth southbound through lane, third westbound through lane, second southbound, eastbound and westbound left-turn lanes, and westbound right-turn lane.	Yes
Felipe Rd & Oso Pkwy	3,4	Add fourth eastbound and westbound through lanes and second southbound left-turn lane, and convert second northbound through lane to shared second through/ second right-turn lane.	Yes
Marguerite Pkwy & Jeronimo Rd	4	Add second northbound left-turn lane.	Yes

Table 5-9 (cont)
SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS OF THE AIP ALTERNATIVE

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS (cont)			
SR 241 northbound ramps & Antonio Pkwy	3	Convert third westbound through lane to shared third through/second right-turn lane.	Yes
SR 241 northbound ramps & Oso Pkwy	3,4	Add third westbound through lane, second eastbound left-turn lane, and second eastbound right-turn lane.	No
SR 241 southbound ramps & Oso Pkwy	4	Add third eastbound through lane.	Yes
FREEWAY/TOLLWAY RAMPS			
I-5 at Crown Valley (northbound direct on-ramp)	3	Widen to a two-lane on-ramp.	Yes
I-5 at Crown Valley (southbound off-ramp)	3	Add second auxiliary lane from I-5 to the off-ramp.	No
I-5 at Ortega Hwy (southbound off-ramp)	3,4	Add second auxiliary lane from I-5 to the off-ramp.	Yes
I-5 at Stonehill Dr (northbound on-ramp)	3,4	Widen to a two-lane on-ramp.	Yes
SR 241 at Antonio Pkwy (northbound on-ramp)	3	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	Yes
SR 241 at Antonio Pkwy (southbound off-ramp)	3,4	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	Yes
SR 241 at Oso Pkwy (northbound on-ramp)	3,4	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	Yes under Scenario 3 No under Scenario 4
SR 241 at Oso Pkwy (southbound off-ramp)	4	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes.	Yes

(a) The assumptions for each scenario are as follows:
 Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
 Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

considered elements of the AIP Alternative (i.e., improvements that would be implemented as part of the development of the AIP Alternative) because they are located along the arterials where upgraded roadway classifications are proposed in this Alternative. Similarly, the I-5 freeway ramp improvements listed in Table 5-9 could potentially be considered elements of the I-5 improvement plan that is proposed in the AIP Alternative.

A direct adverse impact is considered to be mitigated when the proposed mitigation improves the facility to an acceptable LOS. The arterial intersection and freeway ramp locations where direct adverse impacts occur under the AIP Alternative, other than the four potentially grade separated intersection locations which are discussed separately below, are forecast to operate at an acceptable LOS after mitigation except for the following locations where the impacts remain unmitigated:

- Intersection of SR 241 northbound ramps and Oso Parkway.
- I-5 southbound off-ramp at Crown Valley Parkway.
- SR 241 northbound on-ramp at Oso Parkway (Scenario 4 only).

Potential Grade Separated Intersections

The mitigation improvements listed in Table 5-9 for four intersection locations (Antonio Parkway/Oso Parkway, Antonio Parkway/Crown Valley Parkway, Antonio Parkway-La Pata Avenue/Ortega Highway, and Avenida La Pata/Avenida Pico) involve both an at-grade improvement plan and a grade separated improvement plan. In general, the at-grade improvement plan at each location involves the implementation of fairly non-conventional intersection enhancements such as providing triple left-turn lanes and double or free right-turn lanes whereas more conventional lane configurations (e.g., dual left-turn lanes, single right-turn lanes, etc.) are assumed for the grade separated improvement plans. The following summarizes the effectiveness of the at-grade and grade separated plans in improving the LOSs that are forecast at the four intersection locations under the AIP Alternative.

- Antonio Parkway and Crown Valley Parkway: In both of the scenarios that were analyzed (i.e., the 14,000 DU proposed RMV plan and the 21,000 DU OCP-2000 plan for RMV), the at-grade improvement plan does not result in acceptable LOSs (i.e., the direct adverse impact of the AIP Alternative at this intersection remains unmitigated), whereas the grade-separated improvement plan does result in acceptable LOSs (i.e., the direct adverse impact of the AIP Alternative at this intersection is mitigated). Note that separate improvement plans are listed for the two analysis scenarios because the extension of Crown Valley Parkway east of Antonio Parkway is assumed in one scenario (the 21,000 DU OCP-2000 plan for RMV) and not the other (the 14,000 DU proposed RMV plan).
- Antonio Parkway-La Pata Avenue and Ortega Highway: The at-grade and grade separated improvement plans proposed for the scenario based on the 14,000 DU proposed RMV plan result in acceptable LOSs (i.e., the direct adverse impact of the AIP Alternative at this intersection is mitigated). The at-grade and grade separated improvement plans proposed for the scenario based on the 21,000 DU OCP-2000

plan for RMV do not result in acceptable LOSs (i.e., the direct adverse impact of the AIP Alternative at this intersection remains unmitigated under this scenario).

- Antonio Parkway and Oso Parkway: In both of the scenarios that were analyzed (i.e., the 14,000 DU proposed RMV plan and the 21,000 DU OCP-2000 plan for RMV), neither the at-grade nor the grade separated improvement plans result in acceptable LOSs (i.e., the direct adverse impact of the AIP Alternative at this intersection remains unmitigated).
- Avenida La Pata and Avenida Pico: In both of the scenarios that were analyzed (i.e., the 14,000 DU proposed RMV plan and the 21,000 DU OCP-2000 plan for RMV), the at-grade and the grade separated improvement plans both result in acceptable LOSs (i.e., the direct adverse impact of the AIP Alternative at this intersection is mitigated).

5.3.22 I-5 ALTERNATIVE

Physical improvements that address the direct adverse arterial intersection and freeway ramp impacts identified under year 2025 conditions based on the I-5 Alternative are summarized in Table 5-10. Peak hour freeway ramp V/C ratios with and without mitigation are summarized in Appendix E, peak hour intersection ICU values with and without mitigation are summarized in Appendix F, and ICU worksheets are provided in Appendix G. The intersection and freeway ramp improvements along I-5 that are listed in Table 5-10 could potentially be considered elements of the I-5 improvement plan that is proposed in the I-5 Alternative (i.e., improvements that would be implemented as part of the development of the I-5 Alternative) because they are located along the facility (I-5) that is improved in this Alternative.

A direct adverse impact is considered to be mitigated when the proposed mitigation improves the facility to an acceptable LOS. The arterial intersection and freeway ramp locations where direct adverse impacts occur under the I-5 Alternative are forecast to operate at an acceptable LOS after mitigation except for the following locations where the impacts remain unmitigated:

- Intersection of Antonio Parkway-La Pata Avenue and Ortega Highway (Scenario 4 only).
- Intersection of Marguerite Parkway and Crown Valley Parkway.
- I-5 northbound direct on-ramp at Crown Valley Parkway (Scenario 4 only).
- I-5 southbound off-ramp at Crown Valley Parkway.
- I-5 northbound on-ramp at Stonehill Drive.

Table 5-10

SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS OF THE I-5 ALTERNATIVE

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
ARTERIAL INTERSECTIONS			
Antonio Pkwy & Crown Valley Pkwy	3	Add fourth southbound through lane and third eastbound left-turn lane.	Yes
Antonio Pkwy-La Pata Ave & Ortega Hwy	1,3	Provide southbound free right-turn lane.	Yes
Antonio Pkwy-La Pata Ave & Ortega Hwy	4	Convert second northbound through lane to shared second through/second right-turn lane.	No
Cm Capistrano & San Juan Creek Rd	4	Convert second northbound through lane to shared second through/second right-turn lane.	Yes
Cm Capistrano & Stonehill Dr	1	Add second eastbound through lane and northbound right-turn lane, and convert second southbound through lane to shared second through/second right-turn lane.	Yes
Felipe Rd & Oso Pkwy	4	Add fourth eastbound through lane and second southbound left-turn lane, and convert second northbound through lane to shared second through/second right-turn lane.	Yes
I-5 northbound ramps & Crown Valley	4	Add fourth eastbound through lane.	Yes
I-5 northbound ramps & Oso Pkwy	1	Add northbound shared second left-turn/second right-turn lane.	Yes
Los Altos & Crown Valley Pkwy	4	Modify southbound approach to provide a left-turn lane and a shared through/right-turn lane and eliminate north/ south split phasing.	Yes
Marguerite Pkwy & Avery Pkwy	4	Add southbound right-turn lane.	Yes
Marguerite Pkwy & Crown Valley Pkwy	1	Add third northbound through lane and convert second southbound through lane to shared second through/second right-turn lane.	No
Puerta Real & Crown Valley Pkwy	4	Convert southbound through lane to shared through/second right-turn lane.	Yes
Rancho Viejo Rd & Ortega Hwy	1	Add third eastbound through lane.	Yes

Table 5-10 (cont)
SUMMARY OF 2025 IMPROVEMENTS FOR THE DIRECT ADVERSE IMPACTS OF THE I-5 ALTERNATIVE

Location	Scenario (a)	Improvement	Do the Improvements Result in Acceptable LOSs?
FREEWAY RAMPS			
I-5 at Avd Pico (northbound direct on-ramp)	1	Widen to a two-lane on-ramp.	Yes
I-5 at Avd Vista Hermosa (northbound direct on-ramp)	1	Widen to a two-lane on-ramp.	Yes
I-5 at Avd Vista Hermosa (southbound off-ramp)	1	Add second drop lane from I-5 to the off-ramp.	Yes
I-5 at Crown Valley (northbound direct on-ramp)	1,3,4	Widen to a two-lane on-ramp.	Yes under Scenarios 1 and 3 No under Scenario 4
I-5 at Crown Valley (southbound off-ramp)	3,4	Add second auxiliary lane from I-5 to the off-ramp.	No
I-5 at Ortega Hwy (southbound off-ramp)	1,3,4	Add second auxiliary lane from I-5 to the off-ramp.	Yes
I-5 at Stonehill Dr (northbound on-ramp)	1,3,4	Widen to a two-lane on-ramp.	No

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

SECTION 6.0 CEQA SIGNIFICANCE

6.1 CEQA THRESHOLDS OF SIGNIFICANCE

The California Environmental Quality Act (CEQA) requires that each significant impact be identified in the Environmental Impact Report (EIR) (Public Resources Code Section 21082.2). In this Section, references to significant adverse impacts of the South Orange County Transportation Infrastructure Improvement Project (SOCTIIP) alternatives related to transportation and circulation are made to fulfill the requirements of CEQA. No representation as to significance made in this Section represents an assessment of the magnitude of such an impact under the requirements of Federal law. Under the National Environmental Policy Act (NEPA), no determination need be made for each environmental effect. The Council on Environmental Quality (CEQ) regulations implementing NEPA state that “significantly” as used in NEPA requires consideration of both context and severity/intensity. The CEQ regulations recognize that the significance of an action must be analyzed in several contexts such as the society as a whole, the affected region, the affected interests and the locality. Significance varies with the setting of the proposed action (40 CFR Section 1508.27).

As discussed in Section 1.5 (Performance Criteria and Standards), level of service (LOS) performance standards and impact thresholds have been adopted by the various jurisdictional agencies in the SOCTIIP traffic analysis study area. Under CEQA, and consistent with the LOS performance standards and impact thresholds discussed in Section 1.5, a SOCTIIP Alternative would be considered to result in a significant adverse impact related to transportation and circulation when:

- An arterial intersection, freeway/tollway ramp, and/or freeway/tollway mainline segment in the SOCTIIP traffic analysis study area does not meet the adopted LOS performance standards and, based on a comparison to the No Action Alternative, the LOS under a given SOCTIIP Build Alternative at that circulation facility exceeds the adopted LOS impact thresholds.

6.2 SUMMARY OF SIGNIFICANT ADVERSE IMPACTS

As discussed in Section 4.2 (Long-Range Traffic Conditions), the adverse impacts of the SOCTIIP Alternatives are separated into two categories, direct and indirect impacts. Indirect adverse impacts have no connection or “nexus” with the roadway facilities that are constructed in the SOCTIIP Build Alternatives. Therefore, there is no responsibility for the Build Alternatives to participate in the implementation of needed improvements at the locations that are indirectly impacted. Proposals for implementing improvements at each of the I-5 interchanges where indirect adverse impacts occur are currently under study by Caltrans. It is expected that Caltrans will implement future improvements to the ramps and ramp intersections at these interchanges because those ramps and ramp intersections will need improvements in the future with or without the Build Alternatives. These expected improvements implemented by Caltrans will mitigate the indirect adverse impacts of the Build Alternatives to a level that is less than significant under CEQA.

Direct adverse impacts have a nexus to the specific roadway facilities featured in a given Build Alternative and therefore can be considered the responsibility of that Alternative. Specific improvements are therefore identified to mitigate such direct adverse impacts. Table 6-1 provides a summary of the direct adverse impacts of the SOCTIIP Alternatives related to transportation and circulation. The table identifies the long term direct adverse impacts anticipated under each alternative at intersection locations and freeway/tollway ramps in the study area based on the findings of the long-range (year 2025) analysis presented in Section 4.2. As indicated in Section 4.2, no freeway/tollway mainline segments in the study area were found to be adversely impacted by the SOCTIIP Alternatives.

Table 6-1 also identifies the mitigation measures that are proposed to reduce or avoid direct adverse impacts as discussed in Section 5.0 (Mitigation Measures) and the CEQA level of significance of each impact after mitigation. For each impacted location, the summary table notes the scenario in which the direct adverse impact occurs (i.e., committed versus buildout circulation system and 14,000 DU proposed RMV versus 21,000 DU OCP-2000 RMV development plan) and the share of traffic that is attributed to the Build Alternative under which the impact occurs.

A direct adverse impact is mitigated to a level that is less than significant under CEQA when:

- The mitigation improves the facility to an acceptable LOS.

A direct adverse impact after mitigation remains significant under CEQA when:

- The mitigation does not improve the facility to an acceptable LOS.
- No conventional physical improvements could be identified as mitigation (this only occurs at locations constructed as part of a given Build Alternative which are not forecast to operate at an acceptable LOS as currently designed and which could not be redesigned to meet the LOS standard).

6.3 SUMMARY OF SIGNIFICANT ADVERSE IMPACTS AFTER MITIGATION

The physical improvements listed in Table 6-1 mitigate the direct adverse impacts of the SOCTIIP Build Alternatives to a level that is less than significant under CEQA with the exception of the facilities that are summarized in Table 6-2. The direct adverse impacts at the locations listed in Table 6-2 remain significant after mitigation.

Table 6-1 SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		CEQA Level of Significance After Mitigation
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages	
Far East Corridor – Complete – Initial and Ultimate Alternatives	None.	Not applicable.
Far East Corridor – Modified – Initial and Ultimate Alternatives	None.	Not applicable.
Far East Corridor – West – Initial and Ultimate Alternatives	None.	Not applicable.
Far East Corridor – Talega Variation – Initial and Ultimate Alternatives	No conventional intersection enhancements could be identified (traffic share = 19%).	Significant.
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Avenida Pico under Scenarios 1, 3 and 4.	Widen to a two-lane on-ramp (traffic share = 58%).	Significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound on-ramp at Avd Pico under Scenarios 1, 3 and 4.	Add second auxiliary lane from I-5 to the off-ramp (traffic share = 58%).	Significant.
Far East Corridor – Cristianitos Variation – Initial and Ultimate Alternatives	None.	Not applicable.
Far East Corridor – Agricultural Fields Variation – Initial and Ultimate Alternatives	None.	Not applicable.
Far East Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives	Add second westbound through lane and convert second southbound through lane to a free right-turn lane (traffic share = 1%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy-La Pata Ave & Ortega Hwy under Scenario 1.	Add fourth southbound through lane and third northbound left-turn lane, and convert eastbound right-turn lane to a free right-turn lane (traffic share = 4%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 southbound ramps & Avd Pico under Scenario 3.	Add second westbound left-turn lane (traffic share = 13%).	Less than significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages	CEQA Level of Significance After Mitigation
Far East Corridor – Avenida Pico Variation – Initial and Ultimate Alternatives		
Long-range peak hour LOS intersection deficiency: La Novia Ave & Ortega Hwy under Scenario 1.	Add second westbound left-turn lane (traffic share = 1%).	Less than significant.
Long-range peak hour LOS intersection deficiency: La Pata Ave & San Juan Creek Rd under Scenario 3.	Add second eastbound left-turn lane (traffic share = 3%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Pico under Scenario 1.	Add second eastbound left-turn lane and convert second northbound through lane to shared second through/ second right-turn lane (traffic share = 20%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd Vista Hermosa & Avd Pico under Scenario 1.	Add westbound right-turn lane (traffic share = 32%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Ave Pico under Scenarios 1 and 3.	Add third eastbound through lane and second eastbound left-turn lane (traffic share = 13%).	Significant.
Long-range peak hour LOS intersection deficiency: I-5 southbound ramps/Avd Pico under Scenarios 1 and 3.	Reconstruct intersection as part of ramp improvement listed below to provide separate southbound on-ramps from eastbound and westbound Avd Pico (traffic share = 20%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound off-ramp at Avd Pico under Scenarios 1 and 3.	Add second drop lane from I-5 to the off-ramp (traffic share = 36%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound on-ramp at Avd Pico under Scenario 1.	Widen to a two-lane on-ramp (traffic share = 6%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound on-ramp at Avd Pico under Scenarios 1 and 3.	Provide separate on-ramps from eastbound and westbound Avd Pico (traffic share = 34%).	Significant.
Central Corridor – Complete – Initial and Ultimate Alternatives		
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Avenida Pico under Scenarios 1, 3 and 4.	No conventional intersection enhancements could be identified (traffic share = 19%).	Significant.

Table 6-1 (cont)		
SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages (cont)	CEQA Level of Significance After Mitigation
Central Corridor – Complete – Initial and Ultimate Alternatives (cont)		
Long-range peak hour LOS ramp deficiency: I-5 northbound on-ramp at Avd Pico under Scenarios 1, 3 and 4.	Widen to a two-lane on-ramp (traffic share = 58%).	Significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound off-ramp at Avd Pico under Scenarios 1, 3 and 4.	Add second auxiliary lane from I-5 to the off-ramp (traffic share = 58%).	Significant.
Central Corridor – Avenida La Pata Variation – Initial and Ultimate Alternatives		
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Pico under Scenarios 1 and 3.	Add second eastbound left-turn lane and convert second northbound through lane to shared second through/ second right-turn lane (traffic share = 16%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Vista Hermosa under Scenarios 1 and 3.	Add third eastbound through lane and second westbound left-turn lane (traffic share = 22%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd Talega & Ave Vista Hermosa under Scenario 1.	Add third westbound through lane (traffic share = 37%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd Vista Hermosa & Avd Pico under Scenario 1.	Add westbound right-turn lane and convert third eastbound through lane to third eastbound left-turn lane (traffic share = 31%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Cm Vera Cruz & Avd Vista Hermosa under Scenario 1.	Add third eastbound and westbound through lanes and second southbound left-turn lane (traffic share = 10%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Avd Pico under Scenarios 1 and 3.	Add third eastbound through lane and second eastbound left-turn lane (traffic share = 17%).	Significant.
Long-range peak hour LOS intersection deficiency: I-5 southbound ramps & Avd Pico under Scenarios 1 and 3.	Reconstruct intersection as part of ramp improvement listed below to provide separate southbound on-ramps from eastbound and westbound Avd Pico (traffic share = 21%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound off-ramp at Avd Pico under Scenarios 1 and 3.	Add second drop lane from I-5 to the off-ramp (traffic share = 36%).	Less than significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages	CEQA Level of Significance After Mitigation
Central Corridor – Avenida La Pata Variation – Initial and Ultimate Alternatives (cont)		
Long-range peak hour LOS ramp deficiency: I-5 northbound on-ramp at Avd Pico under Scenarios 1 and 3.	Widen to a two-lane on-ramp (traffic share = 6%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound on-ramp at Avd Pico under Scenarios 1 and 3.	Provide separate on-ramps from eastbound and westbound Avd Pico (traffic share = 35%).	Significant.
Central Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives		
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & Crown Valley Pkwy under Scenario 3.	Add fourth southbound through lane (traffic share = 3%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy-La Pata Ave & Ortega Hwy under Scenario 1.	Add second westbound through lane and convert second southbound through lane to a free right-turn lane (traffic share = 13%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy-La Pata Ave & Ortega Hwy under Scenario 3.	Provide free southbound right-turn lane and free northbound right-turn lane (traffic share = 13%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Pico under Scenario 3.	Add third northbound through lane and second eastbound left-turn lane (traffic share = 7%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 southbound ramps & Avd Pico under Scenario 3.	Add second westbound left-turn lane (traffic share = 4%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Ortega Hwy under Scenario 1.	Add third eastbound through lane and northbound left-turn lane, and convert second westbound through lane to shared second through/second right-turn lane (traffic share = 3%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 southbound ramps & Ortega Hwy under Scenario 1.	Add second westbound left-turn lane (traffic share = 4%).	Less than significant.
Long-range peak hour LOS intersection deficiency: La Novia Ave & Ortega Hwy under Scenario 1.	Add second westbound left-turn lane (traffic share = 6%).	Less than significant.
Long-range peak hour LOS intersection deficiency: La Novia Ave & San Juan Creek Rd under Scenario 1.	Add second westbound through lane and southbound right-turn lane (traffic share = 3%).	Less than significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages	CEQA Level of Significance After Mitigation
Central Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives (cont)		
Long-range peak hour LOS intersection deficiency: La Pata Ave & San Juan Creek Rd under Scenario 3.	Add second eastbound left-turn lane (fair share funding obligation; project share = 5%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Rancho Viejo Rd & Ortega Hwy under Scenario 1.	Add third eastbound through lane (traffic share = 2%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Valle & La Novia/I-5 northbound ramps under Scenario 3.	Add second eastbound left-turn lane (traffic share = 4%).	Less than significant.
Alignment 7 Corridor – Complete – Initial and Ultimate Alternatives		
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Avenida Pico under Scenarios 1 and 3.	No conventional intersection enhancements could be identified (traffic share = 19%).	Significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound on-ramp at Avd Pico under Scenarios 1 and 3.	Widen to a two-lane on-ramp (traffic share = 57%).	Significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound off-ramp at Avd Pico under Scenarios 1 and 3.	Add second auxiliary lane from I-5 to the off-ramp (traffic share = 59%).	Significant.
Alignment 7 Corridor – 7 Swing Variation – Initial and Ultimate Alternatives		
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Avenida Pico under Scenarios 1 and 3.	No conventional intersection enhancements could be identified (traffic share = 19%).	Significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound on-ramp at Avd Pico under Scenarios 1 and 3.	Widen to a two-lane on-ramp (traffic share = 57%).	Significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound off-ramp at Avd Pico under Scenarios 1 and 3.	Add second auxiliary lane from I-5 to the off-ramp (traffic share = 59%).	Significant.

Table 6-1 (cont)		
SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages	CEQA Level of Significance After Mitigation
None.	Alignment 7 Corridor – Far East Crossover Variation – Initial and Ultimate Alternatives None.	Not applicable.
None.	Alignment 7 Corridor – Far East Crossover – Modified – Initial and Ultimate Alternatives None.	Not applicable.
None.	Alignment 7 Corridor – Far East Crossover (Cristianitos) Variation – Initial and Ultimate Alternatives None.	Not applicable.
None.	Alignment 7 Corridor – Far East Crossover (Agricultural Fields) Variation – Initial and Ultimate Alternatives None.	Not applicable.
Alignment 7 Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives		
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & Crown Valley Pkwy under Scenario 3.	Add fourth southbound through lane (traffic share = 3%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy-La Pata Ave & Ortega Hwy under Scenario 1.	Add second westbound through lane and convert second southbound through lane to a free right-turn lane (traffic share = 13%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy-La Pata Ave & Ortega Hwy under Scenario 3.	Provide free southbound right-turn lane and free northbound right-turn lane (traffic share = 13%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Pico under Scenario 3.	Add third northbound through lane and second eastbound left-turn lane (traffic share = 7%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 southbound ramps & Avd Pico under Scenario 3.	Add second westbound left-turn lane (traffic share = 4%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Ortega Hwy under Scenario 1.	Add third eastbound through lane and northbound left-turn lane, and convert second westbound through lane to shared second through/second right-turn lane (traffic share = 3%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 southbound ramps & Ortega Hwy under Scenario 1.	Add second westbound left-turn lane (traffic share = 4%).	Less than significant.
Long-range peak hour LOS intersection deficiency: La Novia Ave & Ortega Hwy under Scenario 1.	Add second westbound left-turn lane (traffic share = 6%).	Less than significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages	CEQA Level of Significance After Mitigation
Alignment 7 Corridor – Ortega Highway Variation – Initial and Ultimate Alternatives (cont)		
Long-range peak hour LOS intersection deficiency: La Novia Ave & San Juan Creek Rd under Scenario 1.	Add second westbound through lane and southbound right-turn lane (traffic share = 3%).	Less than significant.
Long-range peak hour LOS intersection deficiency: La Pata Ave & San Juan Creek Rd under Scenario 3.	Add second eastbound left-turn lane (fair share funding obligation; project share = 5%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Rancho Viejo Rd & Ortega Hwy under Scenario 1.	Add third eastbound through lane (traffic share = 2%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Valle & La Novia/I-5 northbound ramps under Scenario 3.	Add second eastbound left-turn lane (traffic share = 4%).	Less than significant.
Alignment 7 Corridor – Avenida La Pata Variation – Initial and Ultimate Alternatives		
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Pico under Scenarios 1 and 3.	Add second eastbound left-turn lane and convert second northbound through lane to shared second through/ second right-turn lane (traffic share = 16%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Vista Hermosa under Scenarios 1 and 3.	Add third eastbound through lane and second westbound left-turn lane (traffic share = 22%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd Talega & Ave Vista Hermosa under Scenario 1.	Add third westbound through lane (traffic share = 37%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd Vista Hermosa & Avd Pico under Scenario 1.	Add westbound right-turn lane and convert third eastbound through lane to third eastbound left-turn lane (traffic share = 31%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Cm Vera Cruz & Avd Vista Hermosa under Scenario 1.	Add third eastbound and westbound through lanes and second southbound left-turn lane (traffic share = 10%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Avd Pico under Scenarios 1 and 3.	Add third eastbound through lane and second eastbound left-turn lane (traffic share = 17%).	Significant.
Long-range peak hour LOS intersection deficiency: I-5 southbound ramps & Avd Pico under Scenarios 1 and 3.	Reconstruct intersection as part of ramp improvement listed below to provide separate southbound on-ramps from eastbound and westbound Avd Pico (traffic share = 21%).	Less than significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages	CEQA Level of Significance After Mitigation
Alignment 7 Corridor – Avenida La Pata Variation – Initial and Ultimate Alternatives (cont)		
Long-range peak hour LOS ramp deficiency: I-5 northbound off-ramp at Avd Pico under Scenarios 1 and 3.	Add second drop lane from I-5 to the off-ramp (traffic share = 36%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound on-ramp at Avd Pico under Scenarios 1 and 3.	Widen to a two-lane on-ramp (traffic share = 6%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound on-ramp at Avd Pico under Scenarios 1 and 3.	Provide separate on-ramps from eastbound and westbound Avd Pico (traffic share = 35%).	Significant.
Arterial Improvements Only Alternative		
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & Crown Valley Pkwy under Scenario 3.	Implement at-grade improvement plan: add third eastbound and northbound left-turn lanes and provide eastbound free right-turn lane (traffic share = 11%). Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy (traffic share = 11%).	Significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & Crown Valley Pkwy under Scenario 4.	Implement at-grade improvement plan: add fourth eastbound and westbound through lanes and third northbound, southbound, eastbound and westbound left-turn lanes, and provide westbound free right-turn lane (traffic share = 11%). Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy (traffic share = 11%).	Significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages	CEQA Level of Significance After Mitigation
Arterial Improvements Only Alternative (cont)		
Long-range peak hour LOS intersection deficiency: Antonio Pkwy-La Pata Ave & Ortega Hwy under Scenario 4.	Implement at-grade improvement plan: add third eastbound and westbound through lanes and third southbound and westbound left-turn lanes, and provide northbound, southbound and westbound free right-turn lanes (traffic share = 5%). Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy-La Pata Ave (traffic share = 5%).	Significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & North River Rd under Scenario 3.	Add third southbound and westbound left-turn lanes (traffic share = 12%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & Oso Pkwy under Scenarios 3 and 4.	Implement at-grade improvement plan: add fourth eastbound and westbound through lanes and third northbound, eastbound and westbound left-turn lanes, and provide northbound and westbound free right-turn lanes (traffic share = 16%). Or implement grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy (traffic share = 16%).	Significant.
Long-range peak hour LOS intersection deficiency: Avd Empresa & Avd De Las Banderas under Scenarios 3 and 4.	Add second eastbound left-turn lane (traffic share = 2%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd Empresa & Santa Margarita Pkwy under Scenarios 3 and 4.	Convert eastbound right-turn lane to a free right-turn lane and add northbound shared third left-turn lane/through lane (traffic share = 4%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Pico under Scenarios 3 and 4.	Implement at-grade improvement plan: add third northbound through lane and second and third eastbound left-turn lanes, and provide westbound free right-turn lane (traffic share = 26%). Or implement grade separated improvement plan: signalized control of all intersection movements except eastbound and westbound through traffic on Avd Pico (traffic share = 26%).	Less than significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages	CEQA Level of Significance After Mitigation
Arterial Improvements Only Alternative (cont)		
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Vista Hermosa under Scenarios 3 and 4.	Add fourth southbound through lane, second southbound, eastbound and westbound left-turn lanes, and westbound right-turn lane (traffic share = 16%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Felipe Rd & Oso Pkwy under Scenarios 3 and 4.	Add fourth eastbound and westbound through lanes and second southbound left-turn lane, and convert second northbound through lane to shared second through/second right-turn lane (traffic share = 4%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Avd Pico under Scenarios 3 and 4.	Add third eastbound through lane (traffic share = 8%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 southbound ramps & Avd Pico under Scenarios 3 and 4.	Add second westbound left-turn lane (traffic share = 13%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Marguerite Pkwy & Jeronimo Rd under Scenario 4.	Add second northbound left-turn lane (traffic share = 6%).	Less than significant.
Long-range peak hour LOS intersection deficiency: SR 241 northbound ramps & Antonio Pkwy under Scenario 3.	Convert third westbound through lane to shared third through/second right-turn lane (traffic share = 3%).	Less than significant.
Long-range peak hour LOS intersection deficiency: SR 241 northbound ramps & Oso Pkwy under Scenarios 3 and 4.	Add third westbound through lane, second eastbound left-turn lane, and second eastbound right-turn lane (traffic share = 14%).	Significant.
Long-range peak hour LOS intersection deficiency: SR 241 southbound ramps & Oso Pkwy under Scenario 4.	Add third eastbound through lane (traffic share = 17%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound on-ramp at Avd Pico under Scenarios 3 and 4.	Widen to a two-lane on-ramp (traffic share = 22%).	Less than significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages Arterial Improvements Only Alternative (cont)	CEQA Level of Significance After Mitigation
Long-range peak hour LOS ramp deficiency: I-5 northbound direct on-ramp at Crown Valley Pkwy under Scenario 3.	Widen to a two-lane on-ramp (traffic share = 6%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound off-ramp at Crown Valley Pkwy under Scenario 3.	Add second auxiliary lane from I-5 to the off-ramp (traffic share = 5%).	Significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound on-ramp at Ortega Hwy under Scenario 4.	Widen to a two-lane on-ramp or provide separate on-ramps from eastbound and westbound Ortega Hwy (traffic share = 5%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound off-ramp at Oso Pkwy under Scenario 3.	Add second drop lane from I-5 to the off-ramp (traffic share = 2%).	Less than significant.
Long-range peak hour LOS ramp deficiency: SR 241 northbound on-ramp at Antonio Pkwy under Scenario 3.	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes (traffic share = 4%).	Less than significant.
Long-range peak hour LOS ramp deficiency: SR 241 southbound off-ramp at Antonio Pkwy under Scenarios 3 and 4.	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes (traffic share = 6%).	Less than significant.
Long-range peak hour LOS ramp deficiency: SR 241 northbound on-ramp at Oso Pkwy under Scenarios 3 and 4.	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes (traffic share = 18%).	Significant.
Long-range peak hour LOS ramp deficiency: SR 241 southbound off-ramp at Oso Pkwy under Scenario 4.	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes (traffic share = 21%).	Less than significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages Plus HOV and Mixed-Flow Spot Lanes on I-5 Alternative	CEQA Level of Significance After Mitigation
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & Crown Valley Pkwy under Scenario 3.	Implement at-grade improvement plan: add third eastbound and northbound left-turn lanes and provide eastbound free right-turn lane (traffic share = 10%). Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy (traffic share = 10%).	Significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & Crown Valley Pkwy under Scenario 4.	Implement at-grade improvement plan: add fourth eastbound and westbound through lanes and third northbound, southbound, eastbound and westbound left-turn lanes, and provide westbound free right-turn lane (traffic share = 10%). Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy (traffic share = 10%).	Significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy-La Pata Ave & Ortega Hwy under Scenario 3.	Implement at-grade improvement plan: provide southbound free right-turn lane (traffic share = 3%). Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy-La Pata Ave (traffic share = 3%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy-La Pata Ave & Ortega Hwy under Scenario 4.	Implement at-grade improvement plan: add third eastbound and westbound through lanes and third southbound and westbound left-turn lanes, and provide northbound, southbound and westbound free right-turn lanes (traffic share = 3%). Or implement grade separated improvement plan: signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy-La Pata Ave (traffic share = 3%).	Significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & North River Rd under Scenario 3.	Add third southbound and westbound left-turn lanes (fair share funding obligation; project share = 11%).	Less than significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION	
Direct Adverse Impact and Impacted Scenarios (a)	CEQA Level of Significance After Mitigation
Mitigation Measure and Traffic Share Percentages	
Arterial Improvements Plus HOV and Mixed-Flow Spot Lanes on I-5 Alternative (cont)	
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & Oso Pkwy under Scenarios 3 and 4.	Implement at-grade improvement plan: add fourth eastbound and westbound through lanes and third northbound, eastbound and westbound left-turn lanes, and provide northbound and westbound free right-turn lanes (traffic share = 14%). Or implement grade separated improvement plan: Signalized control of all intersection movements except northbound and southbound through traffic on Antonio Pkwy (traffic share = 14%).
Long-range peak hour LOS intersection deficiency: Avd Empresa & Avd De Las Banderas under Scenario 3.	Add second eastbound left-turn lane (traffic share = 1%).
Long-range peak hour LOS intersection deficiency: Avd Empresa & Santa Margarita Pkwy under Scenarios 3 and 4.	Convert eastbound right-turn lane to a free right-turn lane and add northbound shared third left-turn lane/through lane (traffic share = 4%).
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Pico under Scenarios 3 and 4.	Implement at-grade improvement plan: add third northbound through lane and second and third eastbound left-turn lanes, and provide westbound free right-turn lane (traffic share = 23%). Or implement grade separated improvement plan: signalized control of all intersection movements except eastbound and westbound through traffic on Avd Pico (traffic share = 23%).
Long-range peak hour LOS intersection deficiency: Avd La Pata & Avd Vista Hermosa under Scenarios 3 and 4.	Add fourth southbound through lane, third westbound through lane, second southbound, eastbound and westbound left-turn lanes, and westbound right-turn lane (traffic share = 18%).
Long-range peak hour LOS intersection deficiency: Felipe Rd & Oso Pkwy under Scenarios 3 and 4.	Add fourth eastbound and westbound through lanes and second southbound left-turn lane, and convert second northbound through lane to shared second through/second right-turn lane (traffic share = 4%).
Long-range peak hour LOS intersection deficiency: Marguerite Pkwy & Jeronimo Rd under Scenario 4.	Add second northbound left-turn lane (traffic share = 5%).

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages Plus HOV and Mixed-Flow Spot Lanes on I-5 Alternative (cont)	CEQA Level of Significance After Mitigation
Arterial Improvements		
Long-range peak hour LOS intersection deficiency: SR 241 northbound ramps & Antonio Pkwy under Scenario 3.	Convert third westbound through lane to shared third through/second right- turn lane (traffic share = 2%).	Less than significant.
Long-range peak hour LOS intersection deficiency: SR 241 northbound ramps & Oso Pkwy under Scenarios 3 and 4.	Add third westbound through lane, second eastbound left-turn lane, and second eastbound right-turn lane (traffic share = 11%).	Significant.
Long-range peak hour LOS intersection deficiency: SR 241 southbound ramps & Oso Pkwy under Scenario 4.	Add third eastbound through lane (traffic share = 15%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound direct on-ramp at Crown Valley Pkwy under Scenario 3.	Widen to a two-lane on-ramp (traffic share = 6%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound off-ramp at Crown Valley Pkwy under Scenario 3.	Add second auxiliary lane from I-5 to the off-ramp (traffic share = 5%).	Significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound off-ramp at Ortega Hwy under Scenarios 3 and 4.	Add second auxiliary lane from I-5 to the off-ramp (traffic share = 9%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound on-ramp at Stonehill Dr under Scenarios 3 and 4.	Widen to a two-lane on-ramp (traffic share = 6%).	Less than significant.
Long-range peak hour LOS ramp deficiency: SR 241 northbound on-ramp at Antonio Pkwy under Scenario 3.	Widen ramp toll plaza to provide two cash (stopped) lanes and two FastLak (unstopped) lanes (traffic share = 2%).	Less than significant.
Long-range peak hour LOS ramp deficiency: SR 241 southbound off-ramp at Antonio Pkwy under Scenarios 3 and 4.	Widen ramp toll plaza to provide two cash (stopped) lanes and two FastLak (unstopped) lanes (traffic share = 6%).	Less than significant.

Table 6-1 (cont)		CEQA Level of Significance After Mitigation
SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages	
Arterial Improvements Plus HOV and Mixed-Flow Spot Lanes on I-5 Alternative (cont)		
Long-range peak hour LOS ramp deficiency: SR 241 northbound on-ramp at Oso Pkwy under Scenarios 3 and 4.	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes (traffic share = 15%).	Significant.
Long-range peak hour LOS ramp deficiency: SR 241 southbound off-ramp at Oso Pkwy under Scenario 4.	Widen ramp toll plaza to provide two cash (stopped) lanes and two FasTrak (unstopped) lanes (traffic share = 18%).	Less than significant.
I-5 Widening Alternative		
Long-range peak hour LOS intersection deficiency: Antonio Pkwy & Crown Valley Pkwy under Scenario 3.	Add fourth southbound through lane and third eastbound left-turn lane (traffic share = 2%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy-La Pata Ave & Ortega Hwy under Scenarios 1 and 3.	Provide southbound free right-turn lane (traffic share = 2%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Antonio Pkwy-La Pata Ave & Ortega Hwy under Scenario 4.	Convert second northbound through lane to shared second through/second right-turn lane (traffic share = 2%).	Significant.
Long-range peak hour LOS intersection deficiency: Cm Capistrano & San Juan Creek Rd under Scenario 4.	Convert second northbound through lane to shared second through/second right-turn lane (traffic share = 10%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Cm Capistrano & Stonehill Dr under Scenario 1.	Add second eastbound through lane and northbound right-turn lane, and convert second southbound through lane to shared second through/second right-turn lane (traffic share = 8%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Felipe Rd & Oso Pkwy under Scenario 4.	Add fourth eastbound through lane and second southbound left-turn lane, and convert second northbound through lane to shared second through/second right-turn lane (traffic share = 4%).	Less than significant.
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Crown Valley Pkwy under Scenario 4.	Add fourth eastbound through lane (traffic share = 8%).	Less than significant.

Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages I-5 Widening Alternative (cont)	CEQA Level of Significance After Mitigation
Long-range peak hour LOS intersection deficiency: I-5 northbound ramps & Oso Pkwy under Scenario 1.	Add northbound shared second left-turn/second right-turn lane (traffic share = 4%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Los Altos & Crown Valley Pkwy under Scenario 4.	Modify southbound approach to provide a left-turn lane and a shared through/right-turn lane and eliminate north/south split phasing (traffic share = 5%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Marguerite Pkwy & Avery Pkwy under Scenario 4.	Add southbound right-turn lane (traffic share = 3%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Marguerite Pkwy & Crown Valley Pkwy under Scenario 1.	Add third northbound through lane and convert second southbound through lane to shared second through/second right-turn lane (traffic share = 2%).	Significant.
Long-range peak hour LOS intersection deficiency: Puerta Real & Crown Valley Pkwy under Scenario 4.	Convert southbound through lane to shared through/second right-turn lane (traffic share = 3%).	Less than significant.
Long-range peak hour LOS intersection deficiency: Rancho Viejo Rd & Ortega Hwy under Scenario 1.	Add third eastbound through lane (traffic share = 2%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound direct on-ramp at Avd Pico under Scenario 1.	Widen to a two-lane on-ramp (traffic share = 5%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound direct on-ramp at Avd Vista Hermosa under Scenario 1.	Widen to a two-lane on-ramp (traffic share = 4%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound off-ramp at Avd Vista Hermosa under Scenario 1.	Add second auxiliary lane from I-5 to the off-ramp (traffic share = 16%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound direct on-ramp at Crown Valley Pkwy under Scenarios 1, 3 and 4.	Widen to a two-lane on-ramp (traffic share = 9%).	Significant.

<p>Table 6-1 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS, MITIGATION MEASURES AND CEQA LEVEL OF SIGNIFICANCE AFTER MITIGATION FOR TRAFFIC AND CIRCULATION</p>		
Direct Adverse Impact and Impacted Scenarios (a)	Mitigation Measure and Traffic Share Percentages I-5 Widening Alternative (cont)	CEQA Level of Significance After Mitigation
Long-range peak hour LOS ramp deficiency: I-5 southbound off-ramp at Crown Valley Pkwy under Scenarios 3 and 4.	Add second auxiliary lane from I-5 to the off-ramp (traffic share = 11%).	Significant.
Long-range peak hour LOS ramp deficiency: I-5 southbound off-ramp at Ortega Hwy under Scenarios 1, 3 and 4.	Add second auxiliary lane from I-5 to the off-ramp (traffic share = 9%).	Less than significant.
Long-range peak hour LOS ramp deficiency: I-5 northbound on-ramp at Stonehill Dr under Scenarios 1, 3 and 4.	Widen to a two-lane on-ramp (traffic share = 16%).	Significant.
No Action Alternative		
None.	None.	Not applicable.
<p>(a) The assumptions for each scenario are as follows: Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV</p>		

Table 6-2

SUMMARY OF DIRECT ADVERSE IMPACTS THAT REMAIN SIGNIFICANT AFTER MITIGATION

Locations where Direct Adverse Impacts Occur	Jurisdiction	Build Alternative(s) and Analysis Scenario(s) in which the Direct Adverse Impacts Remain Significant After Mitigation (a)
INTERSECTIONS		
Antonio Parkway & Crown Valley Parkway	County of Orange	<ul style="list-style-type: none"> • AIO and AIP Alternatives under Scenario 3 with the proposed at-grade improvement plan.
Antonio Parkway-La Pata Avenue & Ortega Highway	County of Orange	<ul style="list-style-type: none"> • AIO and AIP Alternatives under Scenario 4 with either the proposed at-grade or grade separated improvement plan. • I-5 Alternative under Scenario 4.
Antonio Parkway & Oso Parkway	County of Orange	<ul style="list-style-type: none"> • AIO and AIP Alternatives under Scenarios 3 and 4 with either the proposed at-grade or grade separated improvement plan.
I-5 northbound ramps & Avenida Pico	San Clemente	<ul style="list-style-type: none"> • FEC-TV (Initial and Ultimate) and CC (Initial and Ultimate) Alternatives under Scenarios 1, 3 and 4. • A7C (Initial and Ultimate) and A7C-7SV (Initial and Ultimate) Alternatives under Scenarios 1 and 3. • FEC-APV (Initial and Ultimate), CC-ALPV (Initial and Ultimate) and A7C-ALPV (Initial and Ultimate) Alternatives under Scenario 1. • I-5 Alternative under Scenario 1.
Marguerite Parkway & Crown Valley Parkway	Mission Viejo	<ul style="list-style-type: none"> • I-5 Alternative under Scenario 1.
SR 241 northbound ramps & Oso Parkway	Rancho Santa Margarita	<ul style="list-style-type: none"> • AIO and AIP Alternatives under Scenarios 3 and 4.
FREWAY/TOLLWAY RAMPS		
I-5 northbound on-ramp at Avenida Pico	Caltrans/San Clemente	<ul style="list-style-type: none"> • FEC-TV (Initial and Ultimate) and CC (Initial and Ultimate) Alternatives under Scenarios 1, 3 and 4. • A7C (Initial and Ultimate) and A7C-7SV (Initial and Ultimate) Alternatives under Scenarios 1 and 3.
I-5 southbound off-ramp at Avenida Pico	Caltrans/San Clemente	<ul style="list-style-type: none"> • FEC-TV (Initial and Ultimate) and CC (Initial and Ultimate) Alternatives under Scenarios 1, 3 and 4. • A7C (Initial and Ultimate) and A7C-7SV (Initial and Ultimate) Alternatives under Scenarios 1 and 3.
I-5 southbound on-ramp at Avenida Pico	Caltrans/San Clemente	<ul style="list-style-type: none"> • FEC-APV (Initial and Ultimate), CC-ALPV (Initial and Ultimate) and A7C-ALPV (Initial and Ultimate) Alternatives under Scenario 1. • I-5 Alternative under Scenario 4.
I-5 northbound direct on-ramp at Crown Valley Parkway	Caltrans/Mission Viejo	<ul style="list-style-type: none"> • I-5 Alternative under Scenario 4.

Table 6-2 (cont) SUMMARY OF DIRECT ADVERSE IMPACTS THAT REMAIN SIGNIFICANT AFTER MITIGATION		
Locations where Direct Adverse Impacts Occur	Jurisdiction	Build Alternative(s) and Analysis Scenario(s) in which the Direct Adverse Impacts Remain Significant After Mitigation (a)
FREEWAY/TOLLWAY RAMPS (cont)		
I-5 southbound off-ramp at Crown Valley Parkway	Caltrans/Mission Viejo	<ul style="list-style-type: none"> • AIO and AIP Alternatives under Scenario 3. • I-5 Alternative under Scenarios 3 and 4.
I-5 northbound on-ramp at Stonehill Drive	Caltrans/San Juan Capistrano	<ul style="list-style-type: none"> • I-5 Alternative under Scenarios 1, 3 and 4.
SR 241 northbound on-ramp at Oso Parkway	Caltrans/Rancho Santa Margarita	<ul style="list-style-type: none"> • AIO and AIP Alternatives under Scenario 4.
<p>(a) The assumptions for each scenario are as follows: Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan. Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan. Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.</p>		

SECTION 7.0 SPECIAL ISSUES

7.1 NO ACTION ALTERNATIVE SPECIAL ANALYSIS SCENARIOS

Two special analysis scenarios based on the SOCTIIP No Action Alternative were studied under long-range (year 2025) traffic conditions. The scenarios, both of which are based on the committed circulation system, involve the following assumptions for the undeveloped Rancho Mission Viejo (RMV) area in the eastern part of the traffic analysis study area:

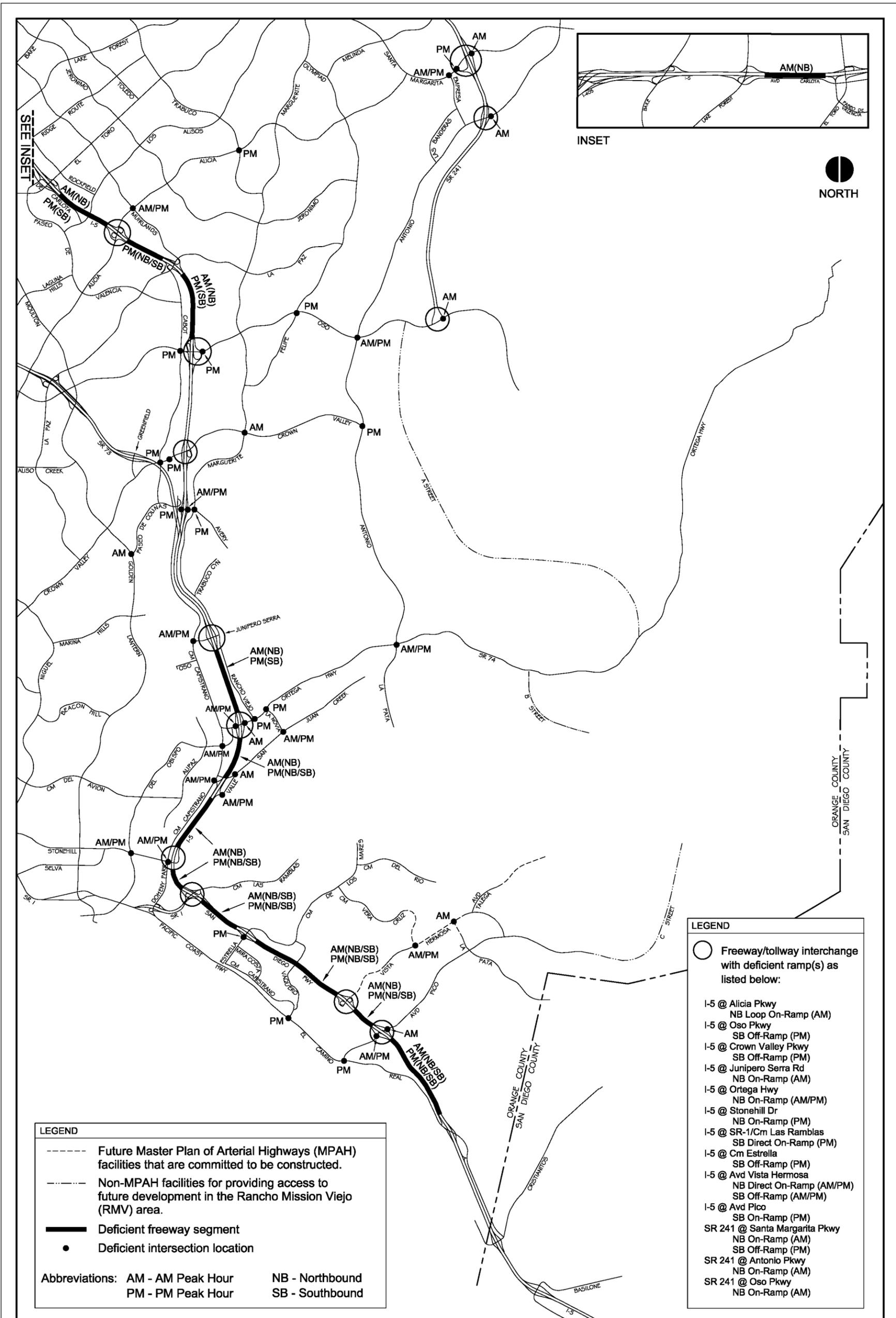
- Special Traffic Analysis Scenario 1: Assumes development in the RMV area at the intensity allowed under the existing General Plan zoning designation. This would result in the development of approximately 6,250 residential DUs.
- Special Traffic Analysis Scenario 2: Assumes no future development in the currently undeveloped RMV areas.

Illustrations showing year 2025 ADT volumes on the study area circulation system are provided in Appendix C for these two special analysis scenarios. Figures 7-1 and 7-2 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations where year 2025 peak hour deficiencies are forecast in these scenarios. Peak hour freeway/tollway mainline V/C summaries are provided in Appendix D, peak hour freeway/tollway ramp V/C summaries are provided in Appendix E, peak hour intersection ICU summaries are provided in Appendix F, and actual ICU worksheets are provided in Appendix G.

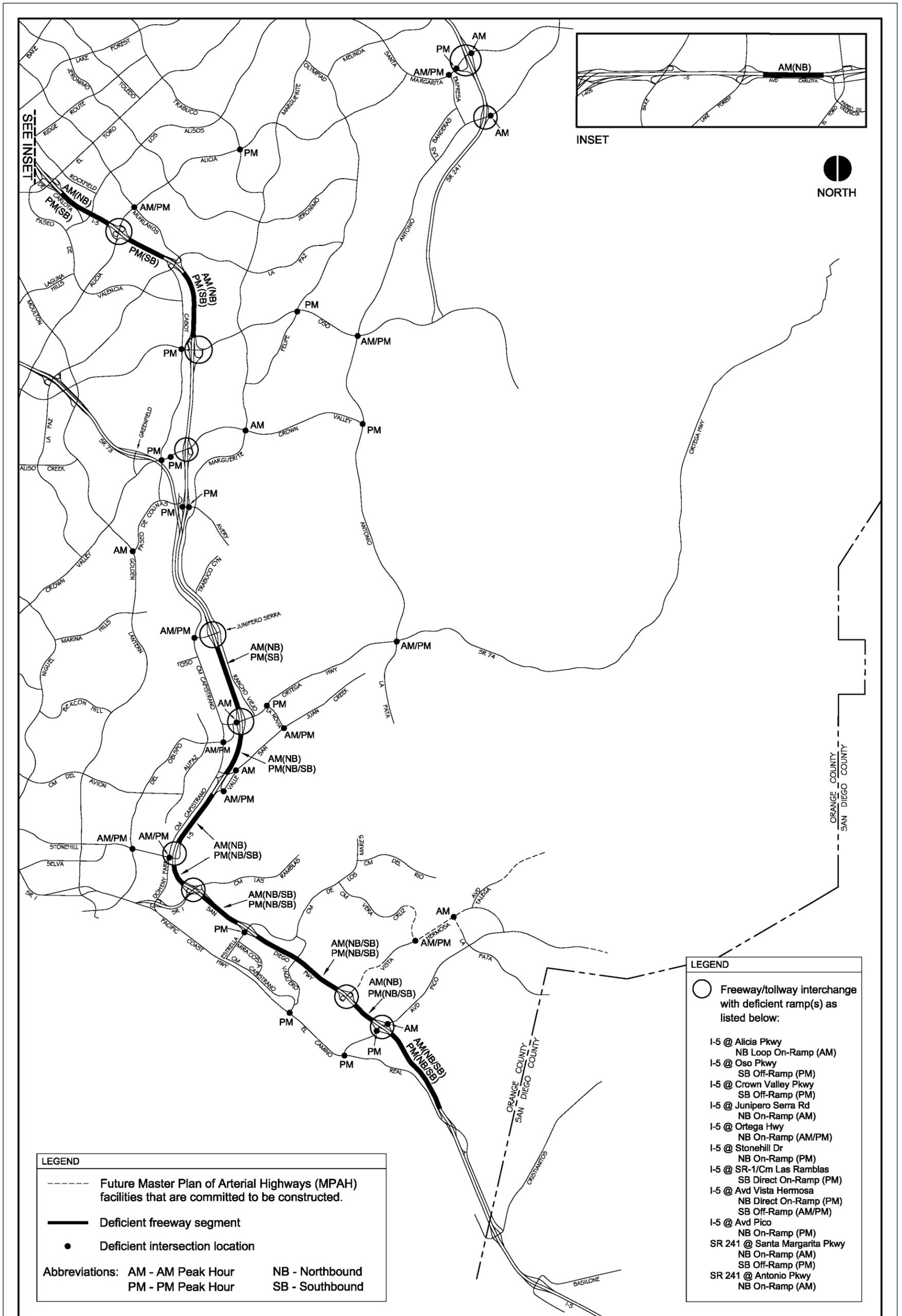
Table 7-1 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in these two No Action Alternative special analysis scenarios. Also included in Table 7-1 for comparison are the number of deficiencies forecast in the No Action Alternative scenarios presented in Section 4.2 (Long-Range Traffic Conditions) based on the 14,000 DU proposed RMV development plan and the 21,000 DU OCP-2000 RMV development plan.

The two special analysis scenarios result in moderately fewer arterial intersection and freeway/tollway ramp deficiencies compared to the two No Action Alternative scenarios presented earlier in this report, and the same number of I-5 mainline deficiencies as the No Action Alternative scenario that is based on the 14,000 DU proposed RMV development plan.

Table 7-2 summarizes the long-range (year 2025) I-5 freeway congestion and arterial intersection delay statistics for the two No Action Alternative special analysis scenarios together with the comparable statistics for the No Action Alternative scenarios that are based on the 14,000 DU proposed RMV development plan and the 21,000 DU OCP-2000 RMV development plan. As discussed in Section 4.3 (Long-Range Measures of Effectiveness), these two statistics are applied as measures of effectiveness for comparing the SOCTIIP Alternatives. Compared with the No Action Alternative scenario based on the 14,000 DU proposed RMV plan, the No Action Alternative special analysis scenario based on the 6,250 DU existing General Plan for RMV



**2025 Peak Hour Deficiencies - No Action Alternative
(Committed Circulation System with Existing General Plan for RMV)**



2025 Peak Hour Deficiencies - No Action Alternative
 (Committed Circulation System with No Future Development in RMV)

Table 7-1

SUMMARY OF 2025 DEFICIENCIES UNDER THE
 NO ACTION ALTERNATIVE SPECIAL ANALYSIS SCENARIOS

No Action Alternative Analysis Scenario	----- Number of Deficient Facilities -----		
	Arterial Intersections	Freeway (I-5) Mainline Segments	Freeway/ Tollway Ramps
Committed circulation system with 6,250 DU existing General Plan for RMV (Special Traffic Analysis Scenario 1)	39	12	15
Committed circulation system with no future development in RMV (Special Traffic Analysis Scenario 2)	33	12	13
Committed circulation system with 14,000 DU proposed RMV plan (Scenario 1)	41	12	17
Committed circulation system with 21,000 DU OCP-2000 plan for RMV (Scenario 2)	50	14	19

Table 7-2

SUMMARY OF 2025 CONGESTION AND DELAY STATISTICS FOR THE
 NO ACTION ALTERNATIVE SPECIAL ANALYSIS SCENARIOS

CONGESTION ON I-5 IN THE STUDY AREA

No Action Alternative Analysis Scenario	Daily Vehicle Miles of Travel (VMT)	Percent of Daily VMT Under Congested Conditions
Committed circulation system with 6,250 DU existing General Plan for RMV (Special Analysis Scenario 1)	7,286,130	22.6%
Committed circulation system with no future development in RMV (Special Analysis Scenario 2)	7,210,040	20.7%
Committed circulation system with 14,000 DU proposed RMV plan (Scenario 1)	7,324,310	22.7%
Committed circulation system with 21,000 DU OCP-2000 plan for RMV (Scenario 2)	7,508,410	28.6%

VEHICLE DELAY ON THE ARTERIAL SYSTEM IN THE STUDY AREA

No Action Alternative Analysis Scenario	Total Hours of Vehicle Delay at Signalized Intersections During the AM and PM Peaks
Committed circulation system with 6,250 DU existing General Plan for RMV (Special Analysis Scenario 1)	12,082
Committed circulation system with no future development in RMV (Special Analysis Scenario 2)	10,517
Committed circulation system with 14,000 DU proposed RMV plan (Scenario 1)	13,196
Committed circulation system with 21,000 DU OCP-2000 plan for RMV (Scenario 2)	17,343

results in a minor reduction in the percentage of daily I-5 VMT that is congested and a moderate reduction in the total hours of vehicle delay on the arterial system. More substantial reductions in the amount of I-5 congestion and delay on the arterial system are forecast in the No Action Alternative special analysis scenario that assumes no future development in the RMV area.

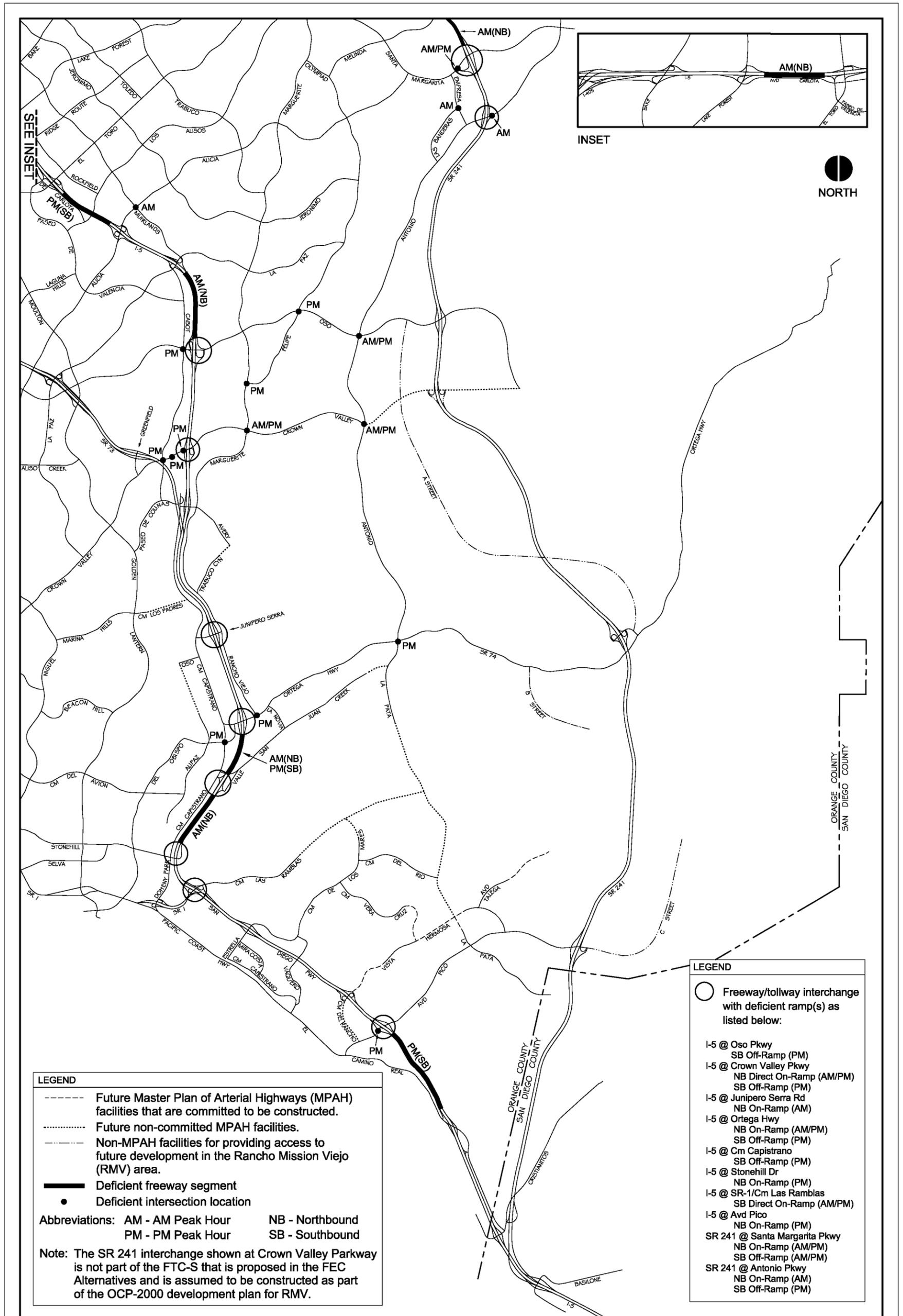
7.2 TOLL-FREE SPECIAL ANALYSIS SCENARIOS

Special analysis scenarios that assume toll-free operation of the existing toll roads in Orange County were studied based on long-range (year 2025) traffic conditions under the FEC, CC, and A7C Alternatives. In each case, the FTC-S between Oso Parkway and I-5 is assumed to be built out to the configuration under the ultimate corridor alternative and in operation as a toll-free facility. The three toll-free scenarios were analyzed based on Scenario 4, buildout MPAH/RTP circulation system and the 21,000 DU OCP-2000 development plan for the RMV area.

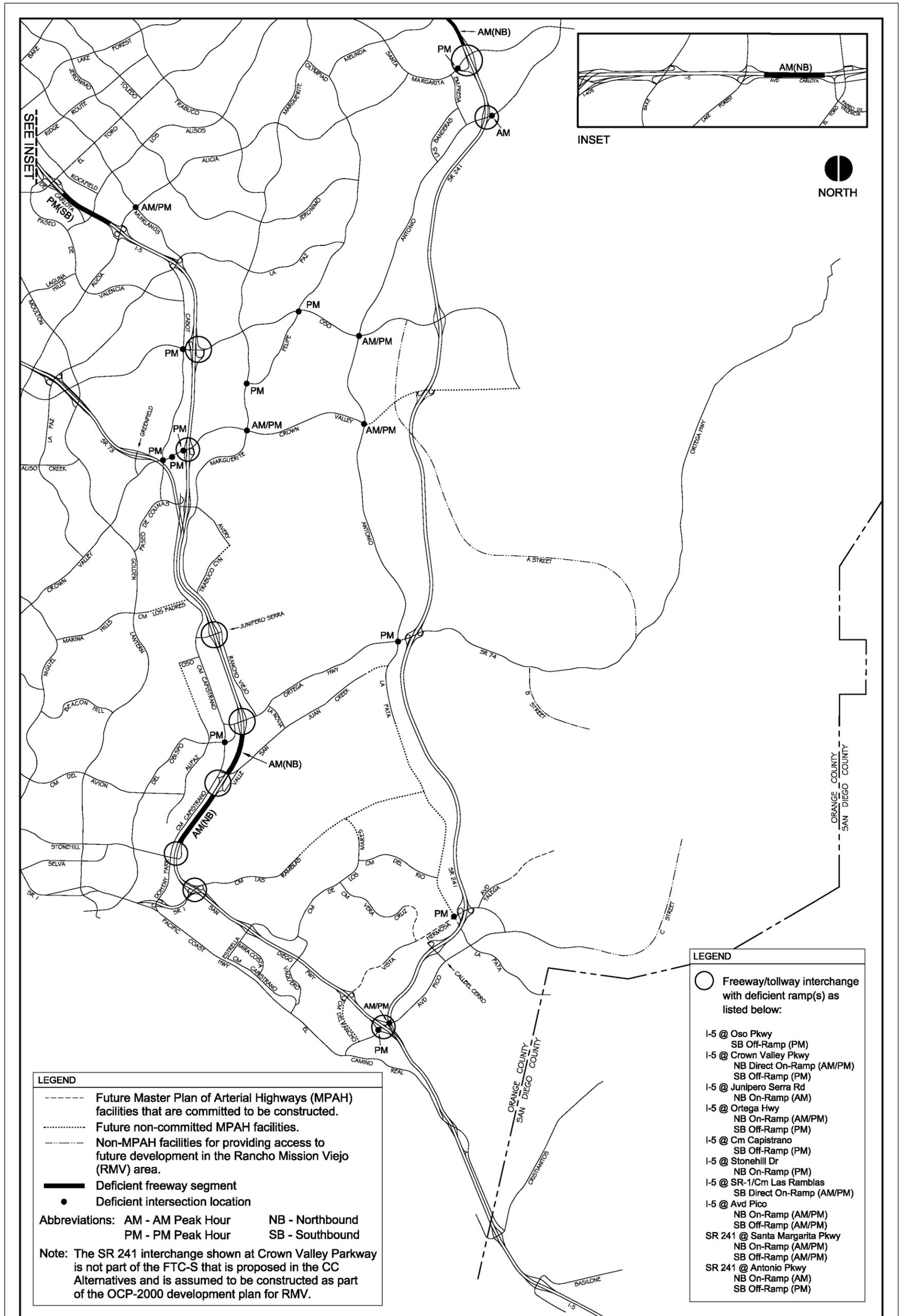
Illustrations showing year 2025 ADT volumes on the study area circulation system are provided in Appendix C for the three toll-free special analysis scenarios. Figures 7-3 through 7-5 illustrate the intersection, freeway/tollway ramp, and freeway mainline locations where year 2025 peak hour deficiencies are forecast in these three scenarios. Peak hour freeway/tollway mainline V/C summaries are provided in Appendix D, peak hour freeway/tollway ramp V/C summaries are provided in Appendix E, peak hour intersection ICU summaries are provided in Appendix F, and actual ICU worksheets are provided in Appendix G.

Table 7-3 summarizes the number of individual facilities (i.e., intersections, ramps, and freeway mainline segments) that are forecast to operate deficiently in the three toll-free special analysis scenarios. Also included in Table 7-3 for comparison are the number of deficiencies forecast in the FEC and CC Alternatives scenarios presented in Section 4.2 (Long-Range Traffic Conditions) which assume tolled operation of the FTC-S and the existing Orange County toll roads. Comparable statistics for an A7C Alternatives scenario based on tolled conditions are not included on the summary table because the long-range (year 2025) analysis results presented in Section 4.2 for the A7C Alternatives are based on the 14,000 DU proposed RMV development plan. However, because of the similarity between the CC and A7C Alternatives, the number of circulation system deficiencies under an A7C Alternative buildout tolled scenario based on the 21,000 DU OCP-2000 RMV development plan would be similar to the number of deficiencies summarized in Table 7-3 for the CC Alternatives under tolled conditions.

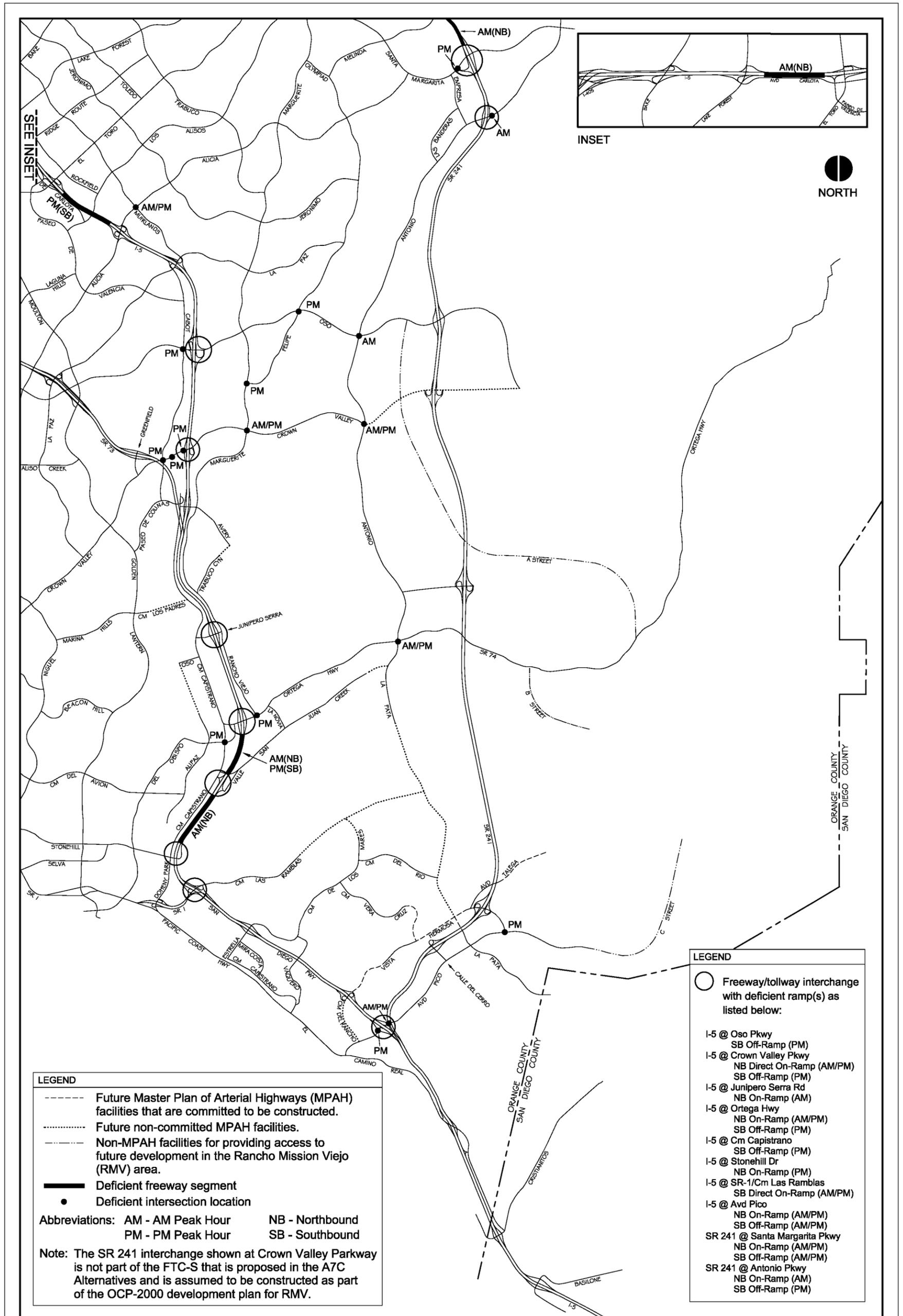
The toll-free special analysis scenarios result in slightly fewer arterial intersection deficiencies and a similar number of deficient freeway/tollway ramps compared to the tolled scenarios. However, the number of deficient freeway mainline segments under toll-free conditions is equal to or greater than the number of deficient segments under tolled conditions. This is because the reduced traffic volumes on I-5 under toll-free versus tolled conditions do not eliminate any of the five I-5 deficiencies that are forecast in the FEC Alternatives under tolled conditions and only eliminate one of the four I-5 deficiencies (the segment of I-5 between Oso Parkway and La Paz Road) that are forecast in the CC Alternatives under tolled conditions. Also, the increased traffic on the FTC-N (north of Oso Parkway) under toll-free conditions results in a forecasted deficiency on the FTC-N north of Santa Margarita Parkway, a segment that is not forecast to be deficient under tolled conditions.



2025 Peak Hour Deficiencies - FEC-Ultimate Alternative
 (Buildout Toll-Free Circulation System with OCP-2000 for RMV)



2025 Peak Hour Deficiencies - CC-Ultimate Alternative
 (Buildout Toll-Free Circulation System with OCP-2000 for RMV)



2025 Peak Hour Deficiencies - A7C-Ultimate Alternative
 (Buildout Toll-Free Circulation System with OCP-2000 for RMV)

Table 7-3

SUMMARY OF 2025 DEFICIENCIES UNDER THE TOLL-FREE SPECIAL ANALYSIS SCENARIOS

Analysis Scenario (a)	Number of Deficient Facilities		
	Arterial Intersections	Freeway Mainline Segments	Freeway/ Tollway Ramps
FEC-Ultimate Alternative (Toll-Free)	17	7	14
CC-Ultimate Alternative (Toll-Free)	17	5	15
A7C-Ultimate Alternative (Toll-Free)	18	5	15
FEC-Initial and Ultimate Alternatives (Tolled)	19	6	14
CC-Initial and Ultimate Alternatives (Tolled)	19	5	15

(a) All scenarios are based on the buildout circulation system and the 21,000 DU OCP-2000 plan for RMV.

Table 7-4 summarizes the long-range (year 2025) I-5 freeway congestion and arterial intersection delay statistics for the toll-free special analysis scenarios together with the comparable statistics for the FEC and CC Alternatives under tolled conditions. As mentioned earlier, a comparable tolled scenario based on the A7C Alternative and the 21,000 DU OCP-2000 RMV development plan was not analyzed, however the freeway congestion and arterial delay statistics under such a scenario would be similar to those of the CC Alternatives. Compared with the tolled analysis scenarios, the toll-free special analysis scenarios result in moderate reductions in both the congested daily VMT percentages on I-5 and the total hours of vehicle delay on the arterial system.

7.3 FTC-S/I-5 CONFLUENCE

Various SOCTIIP Build Alternatives include the FTC-S as an extension of the existing SR 241 toll road from its current terminus at Oso Parkway to I-5. In this Section, the confluence that would be created between the FTC-S and I-5 is evaluated. The intent is to determine whether or not the FTC-S/I-5 confluence will result in a congested interchange situation similar to that experienced at the I-5/I-405 confluence, commonly known as the “El Toro Y”, in southern Orange County through the early 1990s. Up until that time, the I-5/I-405 confluence provided insufficient capacity to serve the traffic demand that had developed in the confluence area. In the mid-1990s, however, a major reconstruction project was implemented which provided a substantial amount of additional capacity at the I-5/I-405 confluence, and the San Joaquin Hills Transportation Corridor (SR 73) and Foothill Transportation Corridor (FTC) toll roads, which provide alternative regional routes to the I-5/I-405 confluence, were opened to traffic. Although congestion occurs regularly today on I-5 and I-405 at locations upstream and downstream from the confluence, the I-5/I-405 confluence no longer causes congestion because of the improvements mentioned here. The type of analysis presented in this Section to evaluate the FTC-S/I-5 confluence is the same type of analysis that was used to determine the types of improvements that were needed to address the congestion problem at the I-5/I-405 confluence.

Two FTC-S/I-5 connections are proposed in the SOCTIIP Build Alternatives that include an extension of SR 241 to I-5. One is a Far East alignment connection that is assumed in the FEC, FEC-M, FEC-W, FEC-AFV, A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives, and the other is a Central alignment connection that is assumed in the CC, FEC-TV, A7C and A7C-7SV Alternatives. The conceptual designs of these two connections are illustrated in Figure 7-6 together with the existing configuration of I-5 in the vicinity of these proposed FTC-S/I-5 confluences. The following discusses specific design aspects of the two connections and evaluates the performance of each connection based on long-range (year 2025) traffic conditions.

7.3.1 FAR EAST ALIGNMENT CONFLUENCE

The Far East alignment confluence of the FTC-S and I-5 is located south of the Basilone Road/I-5 interchange in San Diego County. As Figure 7-6 illustrates, the Far East alignment connection consists of transition ramps to southbound I-5 and from northbound I-5. Traffic connecting with the FTC-S to northbound I-5 and from southbound I-5 must use surface streets, Cristianitos Road in this case, to access the FTC-S. Mixed-flow (general purpose) transition ramps between the FTC-S and I-5 would be constructed with two travel lanes in each direction. The transition ramp

Table 7-4

SUMMARY OF 2025 CONGESTION AND DELAY STATISTICS FOR THE
 TOLL-FREE SPECIAL ANALYSIS SCENARIOS

CONGESTION ON I-5 IN THE STUDY AREA

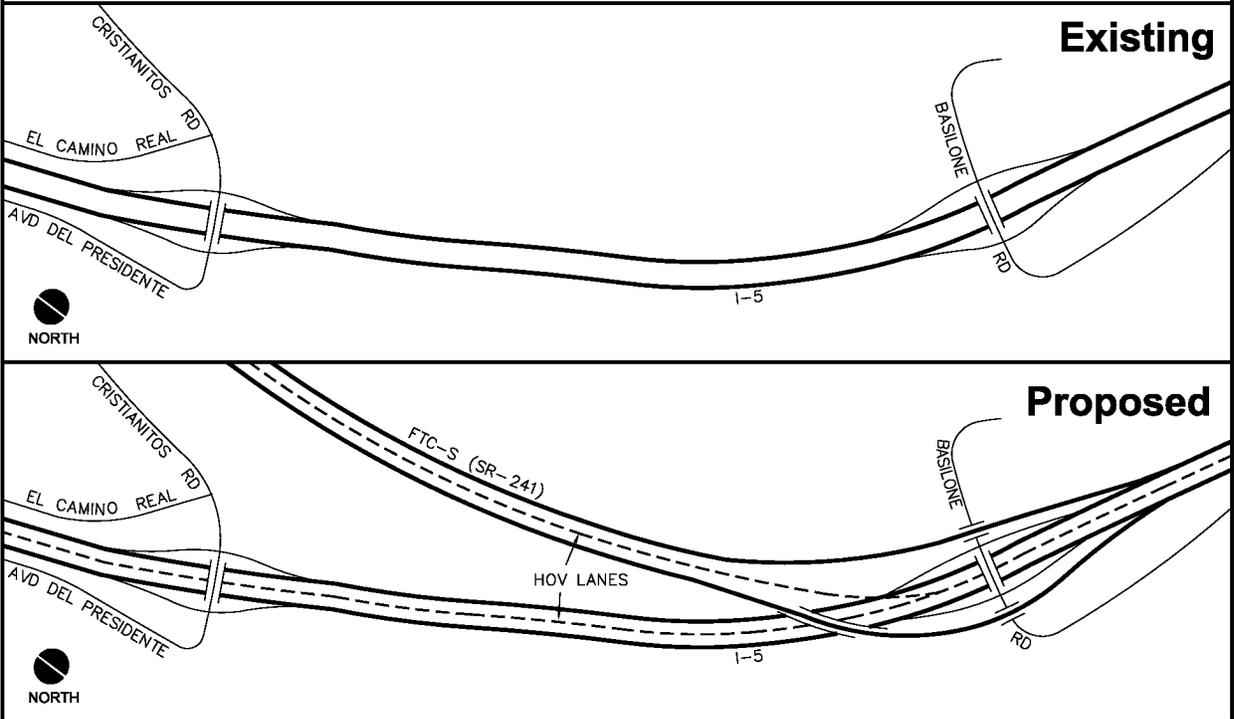
Analysis Scenario (a)	Daily Vehicle Miles of Travel (VMT)	Percent of Daily VMT Under Congested Conditions
FEC-Ultimate Alternative (Toll-Free)	6,254,040	3.1%
CC-Ultimate Alternative (Toll-Free)	6,308,410	2.2%
A7C-Ultimate Alternative (Toll-Free)	6,391,370	2.3%
FEC-Initial and Ultimate Alternatives (Tolled)	6,916,550	4.3%
CC-Initial and Ultimate Alternatives (Tolled)	7,004,420	3.2%

VEHICLE DELAY ON THE ARTERIAL SYSTEM IN THE STUDY AREA

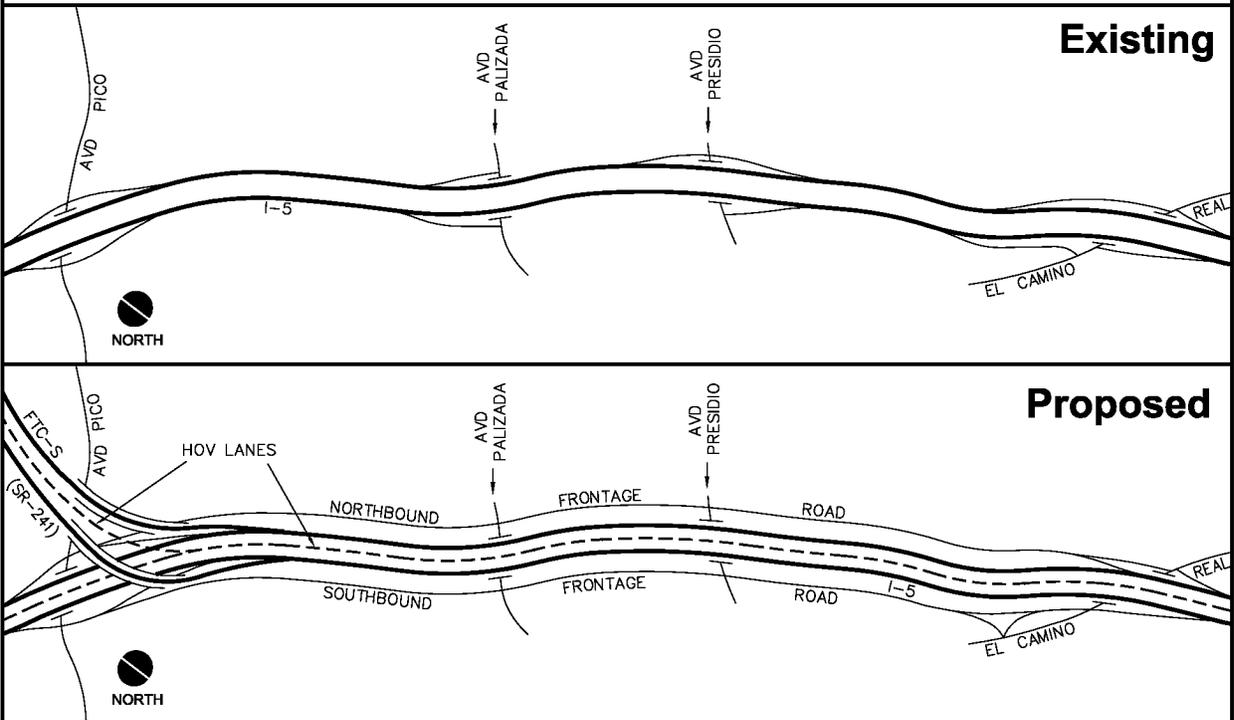
Analysis Scenario (a)	Total Hours of Vehicle Delay at Signalized Intersections During the AM and PM Peaks
FEC-Ultimate Alternative (Toll-Free)	8,337
CC-Ultimate Alternative (Toll-Free)	8,040
A7C-Ultimate Alternative (Toll-Free)	8,138
FEC-Initial and Ultimate Alternatives (Tolled)	9,511
CC-Initial and Ultimate Alternatives (Tolled)	9,438

(a) All scenarios are based on the buildout circulation system and the 21,000 DU OCP-2000 plan for RMV.

Far East Alignment



Central Alignment



FTC-S/I-5 Confluence Concepts

from northbound I-5 to northbound FTC-S would exit I-5 before the I-5 northbound off-ramp to Basilone Road, and conversely the transition ramp from southbound FTC-S to southbound I-5 would enter I-5 after the I-5 southbound on-ramp from Basilone Road. Separate HOV transition ramps between the FTC-S and I-5 would be constructed with one travel lane in each direction.

An analysis of the transition ramps was performed based on forecasted peak hour traffic volumes in order to identify potential capacity problems. Table 7-5 summarizes AM and PM peak hour traffic volumes, V/C ratios and corresponding LOSs for each of the long-range (year 2025) scenarios that were analyzed for the SOCTIIP Build Alternatives that include the Far East alignment FTC-S/I-5 confluence. The V/C ratios are based on the freeway/tollway transition ramp capacities discussed in Section 1.5 (Performance Criteria and Standards) where it is indicated that LOS E has been established by Caltrans as the operating standard for freeway/tollway transition ramps. As Table 7-5 indicates, the transition ramps are forecast to operate at LOS C or better in each of the scenarios that was analyzed.

The long-range traffic conditions discussed in Section 4.0 (Long-Range Analysis) included a peak hour LOS analysis of I-5 which indicated that I-5 north and south of the FTC-S confluence would operate at an acceptable LOS (LOS E or better) in each of the analysis scenarios summarized here. Also, the conceptual design for the Far East alignment connection to I-5 does not create any weaving or merging areas at existing I-5 interchanges north and south of the FTC-S/I-5 confluence that would degrade the forecasted LOSs that are summarized here. Based on the results of this evaluation, the Far East alignment FTC-S/I-5 connection is not expected to cause a congested interchange situation in northern San Diego County.

7.3.2 CENTRAL ALIGNMENT CONFLUENCE

The Central alignment confluence of the FTC-S and I-5 is located south of the Avenida Pico/I-5 interchange in Orange County and consists of transition ramps to southbound I-5 and from northbound I-5. Similar to the Far East alignment confluence, traffic connecting with the Central alignment of the FTC-S to northbound I-5 and from southbound I-5 must use surface streets, Avenida Pico and Calle del Cerro in this case, to access the FTC-S. Mixed-flow (general purpose) transition ramps between the FTC-S and I-5 would be constructed with two travel lanes in each direction. Separate HOV transition ramps between the FTC-S and I-5 would be constructed with one travel lane in each direction.

The conceptual design of the Central alignment FTC-S/I-5 confluence also includes the construction of a northbound and southbound frontage road system parallel to I-5 between Avenida Pico and El Camino Real. In this concept, all southbound I-5 traffic destined to Avenida Pico, Avenida Palizada and El Camino Real in the City of San Clemente would exit I-5 using the southbound off-ramp at Avenida Pico. Conversely, all traffic from El Camino Real, Avenida Presidio, Avenida Palizada and Avenida Pico to northbound I-5 would use the northbound on-ramp at Avenida Pico. A southbound I-5 on-ramp from Avenida Pico and a northbound I-5 off-ramp to Avenida Pico would be retained north of the FTC-S/I-5 transition ramps and would be merged with the southbound and northbound frontage roads.

Table 7-5
2025 PEAK HOUR LOS SUMMARY TABLE FOR THE
FTC-S/I-5 TRANSITION RAMPS UNDER THE FAR EAST ALIGNMENT

Alternatives and Scenarios (a)	Peak Hour	Lanes	Capacity	Volume	V/C	LOS
FEC, FEC-M, FEC-W and FEC-AFV Initial and Ultimate Alternatives						
Scenario 1						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,120	0.38	B
	PM	2+1HOV	5,600	1,980	0.35	B
Southbound FTC-S connector	AM	2+1HOV	5,600	940	0.17	A
	PM	2+1HOV	5,600	2,400	0.43	B
Scenario 3						
Northbound FTC-S connector	AM	2+1HOV	5,600	1,850	0.33	B
	PM	2+1HOV	5,600	1,690	0.30	A
Southbound FTC-S connector	AM	2+1HOV	5,600	820	0.15	A
	PM	2+1HOV	5,600	2,130	0.38	B
Scenario 4						
Northbound FTC-S connector	AM	2+1HOV	5,600	1,820	0.33	B
	PM	2+1HOV	5,600	1,740	0.31	B
Southbound FTC-S connector	AM	2+1HOV	5,600	840	0.15	A
	PM	2+1HOV	5,600	2,140	0.38	B
Scenario 4a						
Northbound FTC-S connector	AM	2+1HOV	5,600	1,870	0.33	B
	PM	2+1HOV	5,600	2,070	0.37	B
Southbound FTC-S connector	AM	2+1HOV	5,600	1,210	0.22	A
	PM	2+1HOV	5,600	2,260	0.40	B
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Initial and Ultimate Alternatives						
Scenario 1						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,180	0.39	B
	PM	2+1HOV	5,600	2,120	0.38	B
Southbound FTC-S connector	AM	2+1HOV	5,600	1,130	0.20	A
	PM	2+1HOV	5,600	2,660	0.48	B
Scenario 3						
Northbound FTC-S connector	AM	2+1HOV	5,600	1,910	0.34	B
	PM	2+1HOV	5,600	1,830	0.33	B
Southbound FTC-S connector	AM	2+1HOV	5,600	890	0.16	A
	PM	2+1HOV	5,600	2,240	0.40	B
Scenario 4						
Northbound FTC-S connector	AM	2+1HOV	5,600	1,850	0.33	B
	PM	2+1HOV	5,600	1,870	0.33	B
Southbound FTC-S connector	AM	2+1HOV	5,600	860	0.15	A
	PM	2+1HOV	5,600	2,200	0.39	B

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Scenario 4a: Same as Scenario 4 but with toll-free operation of the FTC-S and the existing Orange County toll roads.

An analysis of the FTC-S/I-5 transition ramps was performed based on forecasted peak hour traffic volumes in order to identify potential capacity problems. Table 7-6 summarizes AM and PM peak hour V/C ratios and corresponding LOSs for each of the long-range (year 2025) scenarios that were analyzed for the SOCTIIP Build Alternatives that include the Central alignment FTC-S/I-5 confluence. As Table 7-6 indicates, the transition ramps are forecast to operate at LOS C or better in each of the scenarios that was analyzed.

The long-range traffic conditions discussed in Section 4.0 (Long-Range Analysis) included a peak hour LOS analysis of I-5 which indicated that I-5 north and south of the FTC-S confluence would operate at an acceptable LOS (LOS E or better) in each of the analysis scenarios summarized here. Also, the conceptual design for the Central alignment FTC-S/I-5 transition ramps in combination with an I-5 frontage road system between Avenida Pico and El Camino Real does not create any weaving or merging areas at existing I-5 interchanges north and south of the FTC-S/I-5 confluence that would degrade the forecasted LOSs that are summarized here. However, as discussed in Sections 4.0 and 5.0 (Mitigation Measures), peak hour deficiencies that can not be mitigated are forecast for the southbound off-ramp and northbound on-ramp at the I-5/Avenida Pico interchange and at the northbound ramp/frontage road intersection at Avenida Pico in all of the analysis scenarios that include the Central alignment FTC-S/I-5 confluence. Under such conditions, it is possible that ramp traffic would backup onto I-5, reducing the effective capacity on I-5 and hence degrading the forecasted peak hour LOSs on I-5. The Central alignment FTC-S/I-5 connection could therefore potentially result in a congested interchange situation in southern Orange County.

7.4 WEEKEND TRAFFIC ASSESSMENT

This Section discusses weekend traffic in relation to the SOCTIIP traffic and circulation analysis. The information is intended to provide general conclusions regarding future weekend traffic demands in the SOCTIIP traffic analysis study area, and in particular, with respect to a future toll road facility connecting to I-5 in southern Orange County or northern San Diego County.

7.4.1 BACKGROUND

The primary focus of the SOCTIIP traffic impact analysis provided in this technical study is on weekday conditions. Weekday average daily and peak hour forecasts are used to evaluate conditions on the study area circulation system. That analysis does not address weekend conditions. The purpose of the discussion in this Section is to present pertinent weekday versus weekend traffic information and to provide general conclusions with respect to weekend traffic.

For most of the study area circulation system, traffic patterns follow those generally found in urbanized areas. A typical traffic pattern is for weekday peak hour volumes to be higher than the weekend peak hour volumes, even though the ADT on a weekend day may approach or even exceed that of a weekday because traffic tends to spread more evenly throughout the day on a weekend day. For this reason, the SOCTIIP analysis has concentrated on the average weekday volumes and the impact analysis has specifically focused on the weekday peak hours (AM and PM).

Table 7-6
2025 PEAK HOUR LOS SUMMARY TABLE FOR THE
FTC-S/I-5 TRANSITION RAMPS UNDER THE CENTRAL ALIGNMENT

Alternatives and Scenarios (a)	Peak Hour	Lanes	Capacity	Volume	V/C	LOS
FEC-TV-Initial and Ultimate Alternatives						
Scenario 1						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,670	0.48	B
	PM	2+1HOV	5,600	2,860	0.51	C
Southbound FTC-S connector	AM	2+1HOV	5,600	1,760	0.31	B
	PM	2+1HOV	5,600	3,350	0.60	C
Scenario 3						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,360	0.42	B
	PM	2+1HOV	5,600	2,580	0.46	B
Southbound FTC-S connector	AM	2+1HOV	5,600	1,530	0.27	A
	PM	2+1HOV	5,600	3,070	0.55	C
Scenario 4						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,310	0.41	B
	PM	2+1HOV	5,600	2,630	0.47	B
Southbound FTC-S connector	AM	2+1HOV	5,600	1,580	0.27	A
	PM	2+1HOV	5,600	3,070	0.55	C
CC-Initial and Ultimate Alternatives						
Scenario 1						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,810	0.50	B
	PM	2+1HOV	5,600	3,030	0.54	C
Southbound FTC-S connector	AM	2+1HOV	5,600	1,950	0.35	B
	PM	2+1HOV	5,600	3,680	0.66	C
Scenario 3						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,590	0.46	B
	PM	2+1HOV	5,600	2,810	0.50	B
Southbound FTC-S connector	AM	2+1HOV	5,600	1,880	0.34	B
	PM	2+1HOV	5,600	3,430	0.61	C
Scenario 4						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,470	0.44	B
	PM	2+1HOV	5,600	2,880	0.51	C
Southbound FTC-S connector	AM	2+1HOV	5,600	1,950	0.35	B
	PM	2+1HOV	5,600	3,380	0.60	C
Scenario 4a						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,530	0.45	B
	PM	2+1HOV	5,600	3,330	0.59	C
Southbound FTC-S connector	AM	2+1HOV	5,600	2,370	0.42	B
	PM	2+1HOV	5,600	3,540	0.63	C
A7C-Initial and Ultimate and A7C-7SV-Initial and Ultimate Alternatives						
Scenario 1						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,770	0.49	B
	PM	2+1HOV	5,600	2,990	0.53	C
Southbound FTC-S connector	AM	2+1HOV	5,600	1,890	0.34	B
	PM	2+1HOV	5,600	3,540	0.63	C

Table 7-6 (cont)
 2025 PEAK HOUR LOS SUMMARY TABLE FOR THE
 FTC-S/I-5 TRANSITION RAMPS UNDER THE CENTRAL ALIGNMENT

Alternatives and Scenarios (a)	Peak Hour	Lanes	Capacity	Volume	V/C	LOS
A7C-Initial and Ultimate and A7C-7SV-Initial and Ultimate Alternatives (cont)						
Scenario 3						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,510	0.45	B
	PM	2+1HOV	5,600	2,720	0.49	B
Southbound FTC-S connector	AM	2+1HOV	5,600	1,730	0.31	B
	PM	2+1HOV	5,600	3,250	0.58	C
Scenario 4a						
Northbound FTC-S connector	AM	2+1HOV	5,600	2,610	0.47	B
	PM	2+1HOV	5,600	3,210	0.57	C
Southbound FTC-S connector	AM	2+1HOV	5,600	2,270	0.41	B
	PM	2+1HOV	5,600	3,420	0.61	C

(a) The assumptions for each scenario are as follows:

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.

Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.

Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Scenario 4a: Same as Scenario 4 but with toll-free operation of the FTC-S and the existing Orange County toll roads.

A unique characteristic of the SOCTIIP study area is the weekend traffic pattern on I-5 in the southernmost part of the study area. Daily and peak hour traffic volumes across the Orange County/San Diego County border are higher on weekend days than on weekdays. This is an indication that traffic demand patterns across the county border are higher on weekends than during weekdays, a phenomenon that could be attributed, for example, to vacation and leisure amenities and attractions located along the Orange County and San Diego County coastline. Because of this, an evaluation is made here of the potential effect of weekend traffic on the findings in the overall SOCTIIP traffic analysis. General conclusions are made with respect to whether a corridor facility through the SOCTIIP study area could potentially have higher peak hour volumes on weekend days compared to weekdays.

7.4.2 EXISTING FREEWAY AND TOLL ROAD TRAFFIC PATTERNS

This Section summarizes existing traffic data and current traffic patterns for I-5 in southern Orange County, the State Route 73 (SR 73) and SR 241 toll roads in Orange County, and the SR 91 freeway and Express (toll) Lanes at the Orange County/Riverside County border. The information is then discussed in the context of future traffic in the SOCTIIP study area.

I-5 Traffic Patterns

To gain an understanding of existing weekday versus weekend conditions on I-5, data was compiled from two count locations in the SOCTIIP traffic analysis study area. The first is on I-5 at the Orange County/San Diego County line and the second is on I-5 just north of Alicia Parkway. These two Caltrans count stations have continuous traffic count capabilities, allowing data to be summarized over an extended period of time. The weekend versus weekday traffic characteristics based on the traffic count data at each location are summarized in Table 7-7.

	I-5 at Orange/San Diego County Border			I-5 north of Alicia Parkway		
	Northbound Peak Hour Volume	Southbound Peak Hour Volume	Average Daily Traffic	Northbound Peak Hour Volume	Southbound Peak Hour Volume	Average Daily Traffic
Weekday	4,157	4,276	126,056	11,139	12,078	331,058
Saturday	5,407	6,214	166,239	10,893	10,732	337,846
% of Weekday	130%	145%	132%	98%	89%	102%
Sunday	6,332	5,409	161,427	10,031	9,652	297,323
% of Weekday	152%	126%	128%	90%	80%	90%

Source: Caltrans traffic counts for May 2001 and September 2001.

As can be seen here, the volumes at the county border show different weekend characteristics than the volumes north of Alicia Parkway. The former has higher weekend versus weekday volumes (both peak hour and ADT) whereas the latter exhibits more typical traffic patterns with weekday peak hours higher than the weekend peak hours. In effect, the unique weekend characteristics at the County border are diluted further north as other traffic adds to the total mix of trips and more typical traffic patterns become the predominant component of vehicle traffic on I-5. The result is that weekend day to weekday ratios are 128 to 132 percent at the County border and 90 to 102 percent at Alicia Parkway. The peak hour comparisons are similar.

SR 73 and SR 241 Toll Road Traffic Patterns

Traffic patterns on the existing Orange County toll roads show a high weekday peaking characteristic in which the peak to ADT ratio is substantially higher than on other major facilities such as I-5. This difference can be seen in Table 7-8 which summarizes the existing weekday peak hour versus ADT relationships on the SR 73 and SR 241 toll roads in comparison with existing weekday peak hour versus ADT relationships on I-5.

Table 7-8
 EXISTING WEEKDAY PEAK HOUR/ADT RELATIONSHIPS

Location	ADT	---- AM Peak Hour ----		---- PM Peak Hour ----	
		Volume	Peak Hour/ ADT	Volume	Peak Hour/ ADT
Toll Roads ¹					
SR 73 (Catalina View toll plaza)	59,580	5,957 (NB)	10.0%	5,305 (SB)	8.9%
SR 241 (Windy Ridge toll plaza)	44,033	3,589 (SB)	8.2%	3,014 (NB)	6.8%
Average			9.1%		7.9%
I-5 ²					
Orange/San Diego County border	126,056	3,749 (NB)	3.0%	4,276 (SB)	3.4%
North of Alicia Parkway	331,058	11,139 (NB)	3.4%	12,078 (SB)	3.6%
Average			3.2%		3.5%

Abbreviations: NB – northbound SB – southbound

¹ Source: Transportation Corridor Agencies traffic counts for May 2001 and September 2001.
² Source: Caltrans traffic counts for May 2001 and September 2001.

As can be seen, the peak hour to ADT ratios on the existing toll roads are more than double the ratios on I-5. Because drivers will generally pay a toll to save time, these observed peak hour/ADT relationships on the toll roads are an indication that the greatest time savings occurs during peak periods. A second observed feature of toll road traffic patterns is lower weekend versus weekday usage. Comparative peaking characteristics for weekday versus weekend traffic on the SR 73 and SR 241 toll roads are summarized in Table 7-9.

Table 7-9
 EXISTING WEEKDAY VERSUS WEEKEND RELATIONSHIPS ON THE TOLL ROADS

	SR 73 at the Catalina View Toll Plaza			SR 241 at the Windy Ridge Toll Plaza		
	Northbound Peak Hour Volume	Southbound Peak Hour Volume	Average Daily Traffic	Northbound Peak Hour Volume	Southbound Peak Hour Volume	Average Daily Traffic
Weekday	5,957	5,305	59,580	3,014	3,589	44,033
Saturday	1,575	1,505	37,222	1,145	1,077	30,460
% of Weekday	26%	28%	62%	38%	30%	69%
Sunday	1,442	1,211	32,548	957	1,221	28,108
% of Weekday	24%	23%	55%	32%	34%	64%

Source: Transportation Corridor Agencies traffic counts for May 2001 and September 2001.

As this table indicates, the weekend peak on the toll roads ranges from 23 to 38 percent of the weekday peak compared to 80 to 98 percent for I-5 north of Alicia Parkway, as shown earlier in this Section.

SR 91 Freeway and Express (Toll) Lanes Traffic Patterns

SR 91 at the Orange County/Riverside County border provides both a toll facility (the SR 91 Express Lanes) and a non-toll facility. This is a configuration that is potentially similar to future conditions on I-5 at the Orange County/San Diego County border if a toll road facility connecting to I-5 in south Orange County is constructed. Observed traffic data for the SR 91 freeway and Express Lanes was compiled for this analysis and the results are summarized in Table 7-10.

Table 7-10
 EXISTING WEEKDAY VERSUS WEEKEND RELATIONSHIPS ON SR 91
 AT THE ORANGE/RIVERSIDE COUNTY BORDER

	----- Total Traffic ----- (Freeway and Express Lanes)			----- Express (Toll) Lanes -----		
	Northbound Peak Hour Volume	Southbound Peak Hour Volume	Average Daily Traffic	Northbound Peak Hour Volume	Southbound Peak Hour Volume	Average Daily Traffic
Weekday	9,719	9,750	258,120	NA	NA	24,466
Saturday	7,793	8,462	253,997	NA	NA	13,312
% of Weekday	80%	87%	98%	NA	NA	54%
Sunday	7,860	6,992	218,024	NA	NA	10,693
% of Weekday	81%	72%	84%	NA	NA	44%

NA – not available

Source: Caltrans traffic counts for May 2001 and September 2001.

As this summary indicates, the combined SR 91 freeway and Express Lane traffic during the weekend is lower than the weekday traffic both on a peak hour and ADT basis. While peak hour usage of the SR 91 Express Lanes alone is not available, the ADT weekend versus weekday usage listed in the summary table shows similar characteristics to the data presented earlier for the SR 73 and SR 241 toll roads.

7.4.3 IMPLICATIONS FOR SOCTIIP ROADWAYS

A reasonable assumption with respect to future traffic in the SOCTIIP study area is that the existing weekend versus weekday traffic patterns in southern Orange County and northern San Diego County will continue in the future. The population growth in southern California that is causing the increase in weekday traffic volumes across the Orange County/San Diego County border can be anticipated to cause a similar increase in weekend traffic.

The long-range (year 2025) traffic forecast data summarized in Section 4.0 (Long-Range Analysis) indicates that future volumes on I-5 will exceed the peak hour capacity of that facility on weekdays at various locations along I-5 in the study area. Based on the weekend patterns described earlier for I-5, this means that the demand on I-5 will also reach or exceed capacity on weekends, particularly on the section of I-5 near the Orange/San Diego County border where the weekend peak hour is higher than the weekday peak hour. All the SOCTIIP Build Alternatives except for the I-5 Alternative are forecast to reduce weekday traffic volumes on I-5 in southern Orange County compared to the No Action Alternative. The Build Alternatives other than the I-5 Alternative would, therefore, also reduce weekend traffic volumes and congestion on I-5 compared to the No Action Alternative except on I-5 south of the Orange/San Diego County

border. Conversely, because I-5 weekday traffic volumes are forecast to be higher in the I-5 Alternative than in the No Action Alternative, I-5 weekend traffic volumes in the I-5 Alternative are also forecast to be higher than in the No Action Alternative.

For the SOCTIIP Build Alternatives that include a FTC-S toll road, the higher weekend versus weekday traffic volumes forecast on the southernmost section of I-5 should cause the traffic volumes on the toll road to exhibit higher relative weekend usage than currently experienced on the other existing toll roads in Orange County. The issue is whether the peak hour weekend demand on the toll road could exceed the weekday peak hour demand and, thereby, create greater capacity needs for the FTC-S toll road.

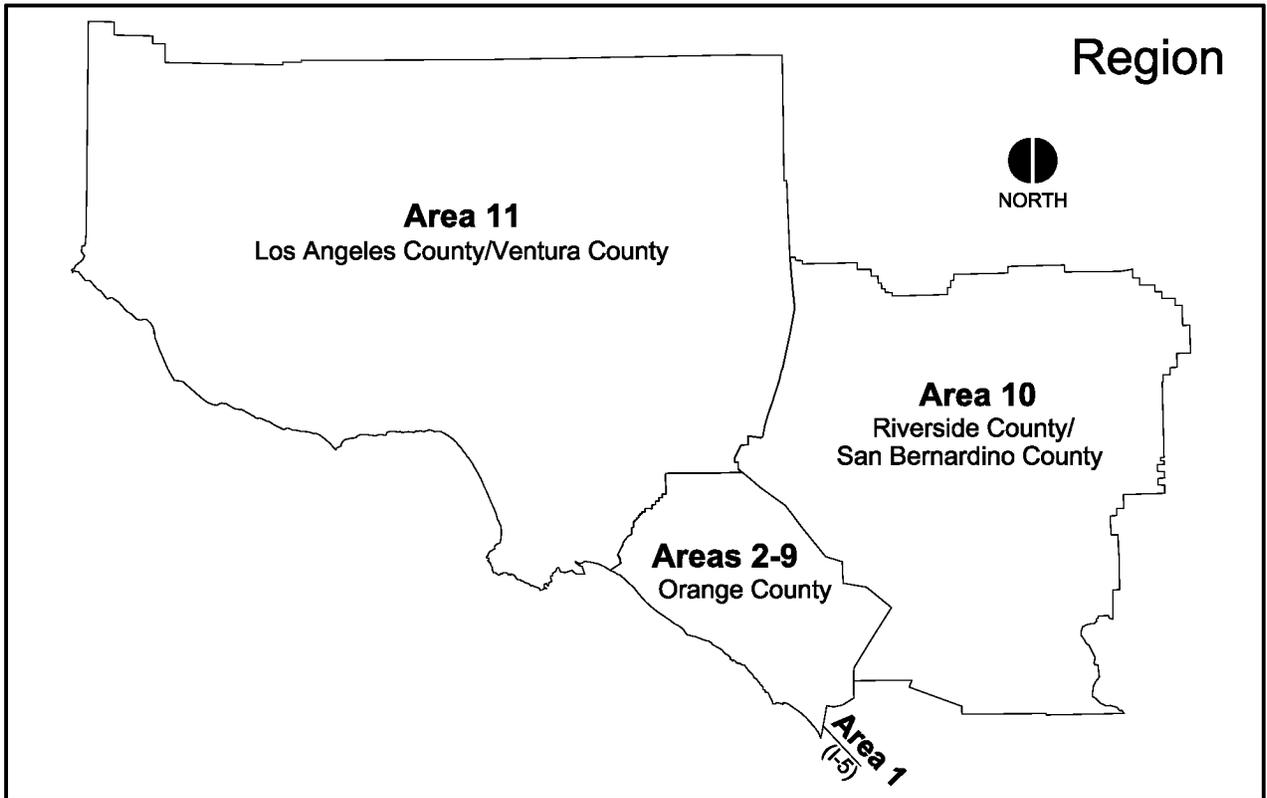
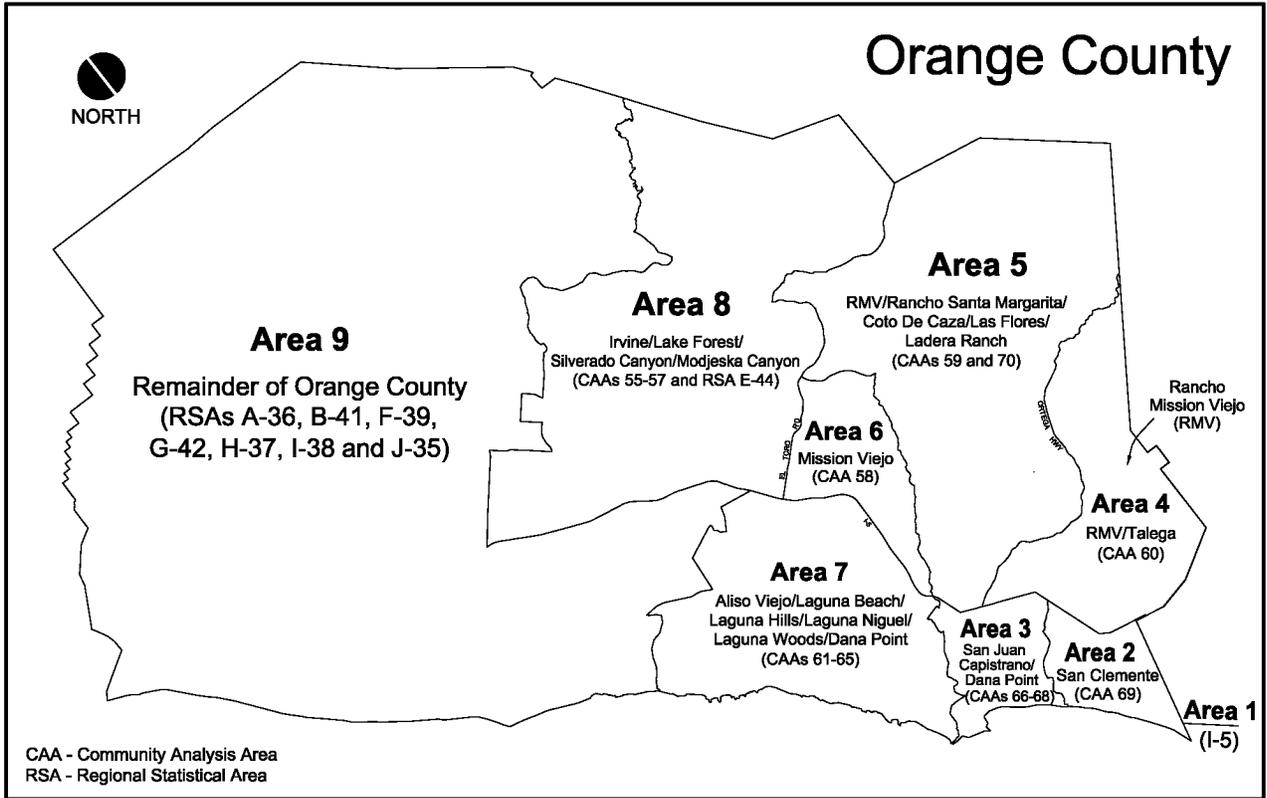
For weekend peak usage to reach or exceed the weekday peak usage on the proposed FTC-S toll road, the usage pattern would have to differ substantially from that currently observed on the existing toll roads. In relative terms, weekend peak hour usage would have to be approximately three times greater than current toll road weekend usage. This would involve a major change in travel behavior, and there is nothing in the weekend analysis information presented here or in the SOCTIIP traffic analysis data presented earlier in this report that would support such a change. While the I-5 congestion would certainly add substantially to the FTC-S toll road traffic demand, it is unlikely that the increase would be of sufficient magnitude for demand on the toll road to reach the same peak hour volume as the weekday peak. It is, therefore, reasonable to conclude that the capacity needs for the FTC-S toll road and the FTC-S/I-5 confluence can be determined based on the weekday peak hour demand forecasts that are summarized earlier in this report.

7.5 GEOGRAPHIC COMPOSITION OF FTC-S TRAFFIC

In this Section, summaries of the geographic composition of traffic on FTC-S, the southern extension of existing SR 241 or FTC-N, are presented for each of the SOCTIIP Build Alternatives that includes the FTC-S. The summaries in this Section indicate the origins and destinations of traffic that is forecast to travel on the FTC-S according to a defined set of geographic areas.

The 11 geographic areas that are applied in the summaries are illustrated in Figure 7-7. The first area (Area 1) which represents I-5 at the Orange County/San Diego County border is applied to report the proportion of FTC-S that travels across the county border via I-5. South Orange County (i.e., areas within and immediately adjacent to the traffic analysis study area) is divided into seven geographic areas (Areas 2 through 8) and the remainder of Orange County is defined as Area 9. Two additional areas are defined outside of Orange County, one (Area 10) for the Counties of Riverside and San Bernardino, and another (Area 11) for the Counties of Los Angeles and Ventura.

The South (Orange) County Sub-Area Model (SCSAM) that was applied to prepare long-range (year 2025) traffic forecasts for the SOCTIIP Alternatives was used to tabulate the origins and destinations of the traffic that is forecast on the FTC-S. This data was utilized to determine the percentage of daily traffic on the FTC-S traffic that travels to and from each of the 11 geographic areas. For any given vehicle that is forecast to travel on the FTC-S, the geographic area where the vehicle trip originates is typically different from the geographic area where the vehicle is



**Geographic Areas for Summarizing
the Composition of Traffic on the FTC-S**

destined. This is accounted for in the calculation of daily traffic percentages by allocating one half of each individual vehicle trip on the FTC-S to the geographic area where the trip originates and allocating the other half of the trip to the geographic area where the vehicle is destined.

Such a tabulation was conducted for each of the scenarios that were analyzed for the Build Alternatives that include the FTC-S, including the toll-free special analysis scenarios summarized earlier in Section 7.2. Separate tabulations were performed for up to three segments of the FTC-S, the segment north of I-5 and the segments north and south of SR 74 (Ortega Highway), depending on how far south the FTC-S is extended in each alternative. Table 7-11 summarizes the resulting percentages of year 2025 daily FTC-S traffic to and from each geographic area for each of the long-range analysis scenarios that include the FTC-S.

The following generally summarizes the geographic composition of traffic on the FTC-S for the FTC-S alignment configurations that were analyzed.

FTC-S toll road from Oso Parkway to I-5 via the Far East alignment connection at I-5 (FEC, FEC-M, FEC-W, FEC-AFV, A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives):

- The proportion of FTC-S traffic that travels to and from I-5 at the county border (Area 1) ranges from 50 percent north of I-5 to 18 percent north of SR 74.
- The proportion of FTC-S traffic that travels to and from areas in south Orange County (Areas 2 through 8) ranges from 13 percent north of I-5 to 62 percent north of SR 74.
- The proportion of traffic that travels to and from north Orange County and areas beyond Orange County (Areas 9 through 11) ranges from 33 percent north of I-5 to 21 percent north of SR 74.

FTC-S toll road from Oso Parkway to I-5 via the Central alignment connection at I-5 (FEC-TV, CC, A7C and A7C-7SV Alternatives):

- The proportion of FTC-S traffic that travels to and from I-5 at the county border (Area 1) ranges from 31 percent north of I-5 to 15 percent north of SR 74.
- The proportion of FTC-S traffic that travels to and from areas in south Orange County (Areas 2 through 8) ranges from 46 percent north of I-5 to 67 percent north of SR 74.
- The proportion of traffic that travels to and from north Orange County and areas beyond Orange County (Areas 9 through 11) ranges from 28 percent north of I-5 to 19 percent north of SR 74.

FTC-S toll road from Oso Parkway to Cristianitos Road (FEC-CV and A7C-FECV-C Alternatives):

- The proportion of FTC-S traffic that travels to and from I-5 at the county border (Area 1) ranges from 26 percent south of SR 74 to 12 percent north of SR 74.

Table 7-11

GEOGRAPHIC COMPOSITION OF YEAR 2025 TRAFFIC ON THE FTC-S

----- Percent of Daily Traffic Origins and Destinations to and from Each Geographic Area (b) -----
Alternatives and Scenarios (a) **ADT** **Area 1** **Area 2** **Area 3** **Area 4** **Area 5** **Area 6** **Area 7** **Area 8** **Area 9** **Area 10** **Area 11**

BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5

FEC, FEC-M, FEC-W and FEC-AFV Alternatives (Initial and Ultimate)

Scenario 1												
north of I-5	26,000	50%	<1%	0%	2%	5%	2%	<1%	5%	7%	18%	11%
south of SR 74	43,000	29%	10%	<1%	12%	12%	2%	<1%	6%	5%	16%	7%
north of SR 74	57,000	18%	3%	<1%	8%	32%	5%	3%	10%	7%	7%	7%
Scenario 3												
north of I-5	24,000	50%	<1%	<1%	2%	5%	1%	<1%	5%	6%	19%	11%
south of SR 74	36,000	32%	7%	<1%	12%	10%	2%	<1%	7%	5%	18%	8%
north of SR 74	52,000	18%	2%	<1%	8%	33%	5%	3%	11%	7%	8%	6%
Scenario 4												
north of I-5	25,000	50%	<1%	<1%	3%	6%	2%	<1%	5%	6%	19%	10%
south of SR 74	39,000	30%	9%	<1%	11%	13%	2%	<1%	6%	5%	17%	7%
north of SR 74	49,000	19%	2%	<1%	10%	27%	3%	2%	14%	9%	8%	8%
Scenario 4a												
north of I-5	36,000	50%	<1%	<1%	2%	5%	2%	0%	5%	5%	20%	11%
south of SR 74	56,000	31%	9%	<1%	11%	11%	2%	<1%	6%	5%	17%	8%
north of SR 74	76,000	20%	3%	<1%	9%	25%	3%	2%	13%	9%	9%	8%

FEC-TV Alternatives (Initial and Ultimate)

Scenario 1												
north of I-5	42,000	27%	31%	<1%	12%	6%	1%	<1%	3%	3%	11%	6%
south of SR 74	42,000	25%	14%	1%	11%	15%	2%	<1%	6%	4%	16%	6%
north of SR 74	55,000	16%	5%	<1%	8%	33%	5%	2%	11%	7%	7%	6%

Table 7-11 (cont)
GEOGRAPHIC COMPOSITION OF YEAR 2025 TRAFFIC ON THE FTC-S

Alternatives and Scenarios (a)	ADT	----- Percent of Daily Traffic Origins and Destinations to and from Each Geographic Area (b) -----										
		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10	Area 11
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5 (cont)												
FEC-TV Alternatives (Initial and Ultimate) (cont)												
Scenario 3												
north of I-5	40,000	26%	32%	1%	13%	6%	1%	<1%	3%	3%	11%	6%
south of SR 74	35,000	27%	13%	1%	10%	13%	2%	<1%	7%	4%	18%	6%
north of SR 74	50,000	15%	5%	<1%	8%	35%	5%	3%	11%	7%	7%	6%
Scenario 4												
north of I-5	41,000	26%	30%	1%	12%	7%	1%	<1%	3%	3%	11%	5%
south of SR 74	39,000	25%	13%	2%	10%	16%	2%	<1%	6%	4%	16%	6%
north of SR 74	47,000	16%	4%	<1%	10%	28%	3%	2%	14%	8%	8%	7%
CC Alternatives (Initial and Ultimate)												
Scenario 1												
north of I-5	47,000	28%	31%	<1%	10%	6%	1%	<1%	4%	4%	11%	6%
south of SR 74	49,000	25%	14%	1%	11%	15%	2%	<1%	7%	5%	14%	6%
north of SR 74	52,000	20%	6%	2%	8%	27%	4%	1%	12%	7%	8%	7%
Scenario 3												
north of I-5	45,000	27%	31%	1%	11%	6%	1%	<1%	4%	3%	11%	6%
south of SR 74	42,000	28%	13%	1%	10%	13%	2%	<1%	7%	5%	15%	7%
north of SR 74	49,000	20%	6%	2%	8%	28%	4%	1%	12%	6%	8%	6%
Scenario 4												
north of I-5	46,000	28%	30%	1%	11%	7%	1%	<1%	3%	3%	11%	6%
south of SR 74	48,000	25%	15%	1%	14%	15%	2%	<1%	6%	4%	14%	6%
north of SR 74	49,000	20%	5%	1%	11%	22%	3%	1%	15%	7%	8%	7%

Table 7-11 (cont)
GEOGRAPHIC COMPOSITION OF YEAR 2025 TRAFFIC ON THE FTC-S

Alternatives and Scenarios (a)	ADT	----- Percent of Daily Traffic Origins and Destinations to and from Each Geographic Area (b) -----										
		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10	Area 11
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5 (cont)												
CC Alternatives (Initial and Ultimate) (cont)												
Scenario 4a												
north of I-5	61,000	31%	24%	1%	9%	6%	1%	<1%	4%	3%	14%	6%
south of SR 74	70,000	26%	13%	1%	13%	12%	3%	<1%	6%	4%	16%	6%
north of SR 74	83,000	19%	5%	2%	11%	22%	3%	1%	13%	7%	11%	7%
A7C and A7C-7SV Alternatives (Initial and Ultimate)												
Scenario 1												
north of I-5	46,000	28%	29%	<1%	11%	6%	1%	<1%	4%	4%	11%	6%
south of SR 74	48,000	25%	15%	1%	11%	15%	2%	<1%	6%	4%	14%	6%
north of SR 74	56,000	18%	6%	1%	9%	30%	4%	2%	11%	7%	7%	6%
Scenario 3												
north of I-5	43,000	28%	29%	1%	12%	6%	1%	<1%	4%	3%	11%	6%
south of SR 74	41,000	27%	13%	1%	11%	14%	2%	<1%	7%	4%	15%	6%
north of SR 74	52,000	17%	5%	1%	9%	31%	4%	2%	12%	6%	7%	6%
Scenario 4a												
north of I-5	57,000	31%	24%	1%	10%	6%	1%	<1%	4%	3%	13%	7%
south of SR 74	63,000	27%	11%	1%	13%	13%	3%	<1%	7%	5%	14%	7%
north of SR 74	74,000	20%	5%	2%	10%	22%	2%	1%	13%	7%	11%	7%
A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives (Initial and Ultimate)												
Scenario 1												
north of I-5	29,000	50%	<1%	0%	2%	5%	2%	<1%	6%	7%	17%	11%
south of SR 74	49,000	29%	10%	<1%	12%	13%	2%	<1%	6%	5%	14%	7%
north of SR 74	58,000	21%	4%	1%	9%	28%	4%	2%	11%	7%	7%	7%

Table 7-11 (cont)
GEOGRAPHIC COMPOSITION OF YEAR 2025 TRAFFIC ON THE FTC-S

Alternatives and Scenarios (a)	ADT	----- Percent of Daily Traffic Origins and Destinations to and from Each Geographic Area (b) -----										
		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10	Area 11
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO I-5 (cont)												
A7C-FECV and A7C-FECV-AF Alternatives (Initial and Ultimate) (cont)												
Scenario 3												
north of I-5	27,000	50%	<1%	<1%	2%	5%	2%	<1%	6%	6%	18%	10%
south of SR 74	40,000	32%	7%	<1%	13%	12%	2%	<1%	7%	5%	15%	7%
north of SR 74	53,000	20%	3%	1%	9%	29%	4%	2%	11%	7%	8%	7%
Scenario 4												
north of I-5	27,000	50%	<1%	<1%	3%	6%	2%	<1%	6%	7%	16%	11%
south of SR 74	39,000	33%	5%	<1%	13%	12%	3%	<1%	7%	6%	13%	8%
north of SR 74	45,000	24%	3%	1%	10%	20%	2%	1%	14%	8%	9%	8%
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO CRISTIANITOS ROAD, AVENIDA PICO OR AVENIDA LA PATA												
FEC-CV Alternatives (Initial and Ultimate)												
Scenario 1												
south of SR 74	36,000	24%	12%	<1%	15%	14%	2%	<1%	6%	4%	16%	7%
north of SR 74	51,000	13%	4%	<1%	10%	36%	5%	3%	11%	7%	6%	6%
Scenario 3												
south of SR 74	28,000	26%	10%	<1%	16%	12%	2%	<1%	7%	4%	19%	6%
north of SR 74	46,000	12%	3%	<1%	10%	38%	5%	3%	11%	7%	7%	5%
A7C-FECV-C Alternatives (Initial and Ultimate)												
Scenario 1												
south of SR 74	39,000	23%	12%	1%	16%	16%	2%	1%	6%	4%	13%	6%
north of SR 74	49,000	15%	4%	1%	11%	33%	4%	2%	12%	7%	6%	6%
Scenario 3												
south of SR 74	30,000	26%	8%	<1%	17%	14%	2%	1%	7%	4%	14%	7%
north of SR 74	45,000	14%	3%	1%	11%	35%	4%	2%	12%	7%	6%	6%

Table 7-11 (cont)
GEOGRAPHIC COMPOSITION OF YEAR 2025 TRAFFIC ON THE FTC-S

Alternatives and Scenarios (a)	ADT	----- Percent of Daily Traffic Origins and Destinations to and from Each Geographic Area (b) -----										
		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10	Area 11
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD FROM OSO PARKWAY TO CRISTIANITOS ROAD, AVENIDA PICO OR AVENIDA LA PATA (cont)												
FEC-APV Alternatives (Initial and Ultimate)												
Scenario 1												
south of SR 74	32,000	16%	15%	1%	20%	16%	2%	1%	6%	3%	15%	5%
north of SR 74	49,000	7%	5%	<1%	12%	40%	6%	4%	11%	7%	5%	5%
Scenario 3												
south of SR 74	24,000	17%	14%	<1%	21%	14%	2%	1%	7%	3%	18%	5%
north of SR 74	44,000	5%	3%	<1%	11%	42%	6%	4%	12%	7%	5%	4%
CC-ALPV and A7C-ALPV Alternatives (Initial and Ultimate)												
Scenario 1												
south of SR 74	35,000	18%	17%	2%	16%	18%	2%	<1%	7%	3%	13%	5%
north of SR 74	41,000	12%	7%	2%	11%	34%	4%	2%	12%	6%	6%	5%
Scenario 3												
south of SR 74	26,000	19%	15%	1%	16%	17%	2%	<1%	8%	3%	13%	5%
north of SR 74	38,000	11%	7%	2%	10%	36%	4%	2%	13%	5%	6%	4%
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD TO SR 74 (ORTEGA HIGHWAY)												
FEC-OHV Alternatives (Initial and Ultimate)												
Scenario 1												
north of SR 74	36,000	<1%	1%	<1%	10%	50%	7%	5%	12%	8%	5%	3%
Scenario 3												
north of SR 74	35,000	1%	<1%	<1%	8%	51%	7%	5%	12%	8%	5%	3%

Table 7-11 (cont)
GEOGRAPHIC COMPOSITION OF YEAR 2025 TRAFFIC ON THE FTC-S

Alternatives and Scenarios (a)	ADT	----- Percent of Daily Traffic Origins and Destinations to and from Each Geographic Area (b) -----										
		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10	Area 11
BUILD ALTERNATIVES WITH FTC-S TOLL ROAD TO SR 74 (ORTEGA HIGHWAY) (cont)												
CC-OHV and A7C-OHV Alternatives (Initial and Ultimate)												
Scenario 1 north of SR 74	23,000	3%	2%	3%	9%	50%	4%	3%	14%	6%	3%	3%
Scenario 3 north of SR 74	27,000	5%	4%	3%	9%	44%	4%	3%	15%	6%	4%	4%
(a) The assumptions for each scenario are as follows: Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan. Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan. Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV. Scenario 4a: Same as Scenario 4 but with toll-free operation of the FTC-S and the existing Orange County toll roads.												
(b) The geographic areas are as follows as shown on Figure 7-7: Area 1: I-5 at the Orange County/San Diego County border. Area 2: San Clemente (Community Analysis Area (CAA) 69). Area 3: San Juan Capistrano/south Dana Point (CAAs 66-68). Area 4: RMV (southern portion)/Talega (CAA 60). Area 5: RMV (northern portion)/Rancho Santa Margarita/Coto De Caza/Las Flores/Ladera Ranch (CAAs 59 and 70). Area 6: Mission Viejo (CAA 58). Area 7: Aliso Viejo/Laguna Beach/Laguna Hills/Laguna Niguel/Laguna Woods/north Dana Point (CAAs 61-65). Area 8: Irvine/Lake Forest/Silverado Canyon/Modjeska Canyon (CAAs 55-57 and Regional Statistical Area (RSA) E-44). Area 9: Remainder of Orange County (RSAs A-36, B-41, F-39, G-42, H-37, I-38 and J-35). Area 10: Riverside/San Bernardino Counties. Area 11: Los Angeles/Ventura Counties.												

Note: The percentages listed for each individual segment of the FTC-S may not add to 100 percent due to rounding.

- The proportion of FTC-S traffic that travels to and from areas in south Orange County (Areas 2 through 8) ranges from 49 percent south of SR 74 to 70 percent north of SR 74.
- The proportion of traffic that travels to and from north Orange County and areas beyond Orange County (Areas 9 through 11) ranges from 29 percent south of SR 74 to 19 percent north of SR 74.

FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata (FEC-APV, CC-ALPV and A7C-ALPV Alternatives):

- The proportion of FTC-S traffic that travels to and from I-5 at the county border (Area 1) ranges from 19 percent south of SR 74 to 5 percent north of SR 74.
- The proportion of FTC-S traffic that travels to and from areas in south Orange County (Areas 2 through 8) ranges from 59 percent south of SR 74 to 78 percent north of SR 74.
- The proportion of traffic that travels to and from north Orange County and areas beyond Orange County (Areas 9 through 11) ranges from 26 percent south of SR 74 to 15 percent north of SR 74.

FTC-S toll road from Oso Parkway to Ortega Highway (FEC-OHV, CC-OHV and A7C-OHV Alternatives):

- The proportion of FTC-S traffic that travels to and from I-5 at the county border (Area 1) is 5 percent or less north of SR 74.
- The proportion of FTC-S traffic that travels to and from areas in south Orange County (Areas 2 through 8) ranges from 82 to 85 percent north of SR 74.
- The proportion of traffic that travels to and from north Orange County and areas beyond Orange County (Areas 9 through 11) ranges from 12 to 16 percent north of SR 74.

Figure 7-8 illustrates the geographic composition of traffic on the FTC-S for the FTC-S alignment configurations that were analyzed. To help distinguish between locally-serving and regionally-serving Build Alternatives that include the FTC-S, the seven local areas that encompass southern and central Orange County have been aggregated into three local areas in the illustration. As the illustration indicates, the Build Alternatives with the FTC-S from Oso Parkway to I-5 are forecast to carry the highest levels of regional traffic (i.e., traffic to and from I-5 south of the Orange County/San Diego County border, northern Orange County, and the Counties of Riverside, San Bernardino, Los Angeles and Ventura) on the FTC-S. For the other Build Alternatives that include the FTC-S, the levels of regional traffic on the FTC-S gradually decrease and the levels of local traffic on the FTC-S gradually increase as the length of the FTC-S is reduced. The following lists the SOCTIIP Build Alternatives that include the FTC-S in general order from those alternatives that are primarily regionally-serving (i.e., with the highest



Riverside County/San Bernardino County		
Alternative Type (a)	Percent of FTC-S Traffic (b)	
	North of I-5 South of SR 74	North of SR 74
A	16-20%	13-18%
B	11-14%	14-18%
C	--	13-19%
D	--	13-18%
E	--	--

North Orange County		
Alternative Type (a)	Percent of FTC-S Traffic (b)	
	North of I-5 South of SR 74	North of SR 74
A	5-7%	5-6%
B	3-4%	4-5%
C	--	4%
D	--	3%
E	--	--

East/Central Orange County		
Alternative Type (a)	Percent of FTC-S Traffic (b)	
	North of I-5 South of SR 74	North of SR 74
A	5-6%	6-7%
B	3-4%	6-7%
C	--	11-15%
D	--	6-7%
E	--	11-13%

Los Angeles County/Ventura County		
Alternative Type (a)	Percent of FTC-S Traffic (b)	
	North of I-5 South of SR 74	North of SR 74
A	10-11%	7-8%
B	5-7%	6-7%
C	--	6-7%
D	--	5%
E	--	--

Southeast Orange County		
Alternative Type (a)	Percent of FTC-S Traffic (b)	
	North of I-5 South of SR 74	North of SR 74
A	8-11%	24-28%
B	16-20%	25-31%
C	--	30-34%
D	--	35-38%
E	--	--

Southwest Orange County		
Alternative Type (a)	Percent of FTC-S Traffic (b)	
	North of I-5 South of SR 74	North of SR 74
A	1-2%	7-11%
B	25-33%	12-16%
C	--	9-14%
D	--	15-19%
E	--	--

I-5 South of Orange/San Diego County Border		
Alternative Type (a)	Percent of FTC-S Traffic (b)	
	North of I-5 South of SR 74	North of SR 74
A	50%	29-33%
B	26-31%	25-28%
C	--	23-26%
D	--	16-19%
E	--	--

NOTES

(a) Alternative types:
 A - Build Alternatives with FTC-S toll road from Oso Parkway to I-5 via the Far East alignment connection at I-5 (FEC, FEC-M, FEC-W, FEC-AFV, A7C-FECV, A7C-FEC-M and A7C-FECV-AF Alternatives).
 B - Build Alternatives with FTC-S toll road from Oso Parkway to I-5 via the Central alignment connection at I-5 (FEC-TV, CC, A7C and A7C-7SV Alternatives).
 C - Build Alternatives with FTC-S toll road from Oso Parkway to Cristianitos Road (FEC-CV and A7C-FECV-C Alternatives).
 D - Build Alternatives with FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata (FEC-APV, CC-ALPV and A7C-ALPV Alternatives).
 E - Build Alternatives with FTC-S toll road from Oso Parkway to Ortega Highway (FEC-OHV, CC-OHV and A7C-OHV Alternatives).

(b) Expressed as the percent of FTC-S daily traffic origins and destinations to and from a given geographic area. The percentages are listed in ranges because the percentages vary between the individual alternatives within an alternative type and between the scenarios that were analyzed (e.g., committed versus buildout circulation system, 14,000 DU proposed RMV plan versus 21,000 DU OCP-2000 plan for RMV).

Geographic Composition of Year 2025 Traffic on the FTC-S

levels of regional traffic on the FTC-S) to those alternatives that are primarily locally-serving (i.e., with the lowest levels of regional traffic on the FTC-S).

- The Build Alternatives that include the FTC-S toll road from Oso Parkway to I-5.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Cristianitos Road.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Avenida Pico or Avenida La Pata.
- The Build Alternatives that include the FTC-S toll road from Oso Parkway to Ortega Highway.

SECTION 8.0
LIST OF REFERENCES

The following references were used in the preparation of this technical report:

2000 Traffic Volumes on the California State Highway System (State of California Department of Transportation, 2000 Edition).

2001 Orange County Congestion Management Program (Orange County Transportation Authority, 2001 Edition).

2001 Regional Transportation Plan Update (Southern California Association of Governments, 2001 Edition).

Accounting for Induced Travel in Evaluation of Urban Highway Expansion (Federal Highways Administration, date unknown).

City of San Clemente Regional Circulation Financing and Phasing Program (City of San Clemente, 1997).

City of San Juan Capistrano Reimbursement Agreement and Nexus Fee Program (City of San Juan Capistrano, August 27, 2001).

County of Orange General Plan Appendix IV-1 (GMP Transportation Implementation Manual) (County of Orange, March 15, 1994).

Highway Capacity Manual 2000 (Transportation Research Board, National Research Council, 2000 Edition).

Highway Design Manual (State of California Department of Transportation, July 1995).

Interim Land Use for Traffic/CEQA Analysis for Rancho Mission Viejo Area (Letter from Bryan Speegle, County of Orange Planning and Development Services Department, to David Elbaum, Orange County Transportation Authority, January 2002).

Master Plan of Arterial Highways, Orange County, California (Orange County Transportation Authority, effective date December 11, 2000).

North Coast Transportation Study (San Diego Association of Governments, December 2000).

Orange County Projections 2000 (Center for Demographic Research, California State University Fullerton, September 2000).

Orange County Subarea Modeling Guidelines Manual (Orange County Transportation Authority, June 2001).

Ramp Meter Design Manual (State of California Department of Transportation, January 2000).

Route Concept Report, Interstate Route 5, San Diego/Santa Ana Freeway, 12-ORA-05 – PM 0.00/44.38 (State of California Department of Transportation, April 2000).

South Orange County Transportation Infrastructure Improvement Project, Traffic and Circulation Technical Report, Traffic Model Description and Validation (Austin-Foust Associates, Inc., December 2003).

SECTION 9.0
LIST OF PREPARERS

The following individuals were involved in the preparation of this technical report.

AUSTIN-FOUST ASSOCIATES, INC.

Terence W. Austin	Principal-in-Charge, BE in Civil Engineering, MS in Transportation, BS in Mathematics, MBA in Administration. Over 30 years experience in all aspects of transportation planning.
Kendall E. Elmer	Project Manager, BS in Civil Engineering. Over 18 years experience in transportation planning.
Phong Le	Transportation Analyst, BS in Mathematics. Over 12 years experience in transportation planning and traffic modeling.
Ida Chan	Transportation Analyst, BS in Civil Engineering. Four years experience in transportation planning.
Charlie Ho	Transportation Analyst, BS in Civil Engineering. Four years experience in transportation planning.

**SOUTH ORANGE COUNTY TRANSPORTATION
INFRASTRUCTURE IMPROVEMENT PROJECT
TRAFFIC AND CIRCULATION TECHNICAL REPORT APPENDICES
(Volume 1: Appendices A to F)**

Prepared for:

**Foothill/Eastern Transportation Corridor Agency
125 Pacifica
Irvine, CA 92618-3406**

Contact: Macie Cleary-Milan, Deputy Director, Environmental and Planning

Prepared by:

**Austin-Foust Associates, Inc.
2020 North Tustin Avenue
Santa Ana, CA 92705
Contact: Terence W. Austin, P.E.**

December 2003

**SOUTH ORANGE COUNTY TRANSPORTATION
INFRASTRUCTURE IMPROVEMENT PROJECT
TRAFFIC AND CIRCULATION TECHNICAL REPORT APPENDICES
(Volume 2: Appendix G – Part 1)**

Prepared for:

**Foothill/Eastern Transportation Corridor Agency
125 Pacifica
Irvine, CA 92618-3406**

Contact: Macie Cleary-Milan, Deputy Director, Environmental and Planning

Prepared by:

**Austin-Foust Associates, Inc.
2020 North Tustin Avenue
Santa Ana, CA 92705
Contact: Terence W. Austin, P.E.**

December 2003

**SOUTH ORANGE COUNTY TRANSPORTATION
INFRASTRUCTURE IMPROVEMENT PROJECT
TRAFFIC AND CIRCULATION TECHNICAL REPORT APPENDICES
(Volume 3: Appendix G – Part 2)**

Prepared for:

**Foothill/Eastern Transportation Corridor Agency
125 Pacifica
Irvine, CA 92618-3406**

Contact: Macie Cleary-Milan, Deputy Director, Environmental and Planning

Prepared by:

**Austin-Foust Associates, Inc.
2020 North Tustin Avenue
Santa Ana, CA 92705
Contact: Terence W. Austin, P.E.**

December 2003

**SOUTH ORANGE COUNTY TRANSPORTATION
INFRASTRUCTURE IMPROVEMENT PROJECT
TRAFFIC AND CIRCULATION TECHNICAL REPORT APPENDICES
(VOLUME 1)**

December 2003

**SOUTH ORANGE COUNTY TRANSPORTATION
INFRASTRUCTURE IMPROVEMENT PROJECT
TRAFFIC AND CIRCULATION TECHNICAL REPORT APPENDICES
(VOLUME 2)**

December 2003

**SOUTH ORANGE COUNTY TRANSPORTATION
INFRASTRUCTURE IMPROVEMENT PROJECT
TRAFFIC AND CIRCULATION TECHNICAL REPORT APPENDICES
(VOLUME 3)**

December 2003

**SOUTH ORANGE COUNTY TRANSPORTATION
INFRASTRUCTURE IMPROVEMENT PROJECT
TRAFFIC AND CIRCULATION TECHNICAL REPORT APPENDICES**

Prepared for:

**Foothill/Eastern Transportation Corridor Agency
125 Pacifica
Irvine, CA 92618-3406**

Contact: Macie Cleary-Milan, Deputy Director, Environmental and Planning

Prepared by:

**Austin-Foust Associates, Inc.
2020 North Tustin Avenue
Santa Ana, CA 92705
Contact: Terence W. Austin, P.E.**

December 2003

TABLE OF CONTENTS

Appendices Volume 1

Appendix A	Study Area Demographic Projections and Cumulative Projects
Appendix B	Regionwide VMT/VHT Summaries
Appendix C	ADT Illustrations
Appendix D	Freeway/Tollway Mainline Peak Hour LOS and I-5 Congestion Summaries
Appendix E	Freeway/Tollway Ramp Peak Hour LOS Summaries
Appendix F	Intersection Lane Configuration, Peak Hour ICU and Intersection Delay Summaries

Appendices Volume 2

Appendix G	Peak Hour ICU Worksheets (Part 1)
------------	-----------------------------------

Appendices Volume 3

Appendix G	Peak Hour ICU Worksheets (Part 2)
------------	-----------------------------------

APPENDIX A
STUDY AREA DEMOGRAPHIC PROJECTIONS
AND CUMULATIVE PROJECTS

This appendix summarizes the demographic projections applied in the SOCTIIP traffic and circulation analysis. Existing (2000) and future (2025) demographic data is summarized for the two Regional Statistical Areas (RSAs) that encompass the traffic analysis study area. The two RSAs, C-43 and D-40, are illustrated in Figure A-1 together with the Orange County Transportation Analysis Model (OCTAM 3.1) zones that have been defined in the two RSAs. Table A-1 summarizes the existing and future demographic projections by OCTAM 3.1 zone.

The Orange County Projections 2000 (OCP-2000) demographic forecasts provide the primary set of demographic data that is applied in the analysis with the exception of the Cities of Mission Viejo, San Juan Capistrano and San Clemente and the unincorporated community of Ladera where General Plan land use data that is consistent with the OCP-2000 projections is applied. In Table A-1, the land use based demographic data is listed together with OCP-2000 data for those OCTAM 3.1 zones where land use based demographic data is applied. Major cumulative projects in southern Orange County that are included in the OCP-2000 demographic projections and the city/county General Plan land use data are listed in Table A-2. Table A-3 lists potential cumulative circulation improvement projects that are being considered by Caltrans.

The illustrations and summary tables that are included in this appendix are listed below.

LIST OF FIGURES

Figure	Page
A-1 OCTAM 3.1 Zones in Southern Orange County	A-2

LIST OF TABLES

Table	Page
A-1 Existing and Future Demographic Data	A-3
A-2 Summary of Cumulative Projects in the Study Area.....	A-14
A-3 Summary of Cumulative Projects Proposed by Caltrans.....	A-21

Table A-1
 EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		---- Population ----		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2378	OCP-2000	20	172	43	428	0	0
2588	OCP-2000	37	91	99	224	30	30
2589	OCP-2000	479	908	1,157	2,208	154	160
2590	OCP-2000	259	501	642	1,220	92	97
2591	OCP-2000	0	0	0	0	0	0
2592	OCP-2000	1,412	1,842	3,832	5,224	401	401
2593	OCP-2000	1,538	1,538	4,139	4,362	172	172
2594	OCP-2000	340	544	902	1,543	260	260
2595	OCP-2000	226	226	559	588	31	31
2596	OCP-2000	296	296	786	839	57	57
2597	OCP-2000	784	784	2,059	2,223	252	1,465
2598	OCP-2000	870	1,106	2,314	3,137	230	1,653
2599	OCP-2000	0	0	0	0	47	1,318
2600	OCP-2000	132	192	351	545	15	39
2601	OCP-2000	0	0	0	0	1,417	2,683
2602	OCP-2000	0	0	0	0	1,811	1,811
2603	OCP-2000	0	0	0	0	2,002	2,002
2604	OCP-2000	0	0	0	0	2,922	3,068
2605	OCP-2000	0	0	0	0	111	111
2606	OCP-2000	0	0	0	0	1,104	1,104
2607	OCP-2000	0	0	0	0	1,081	1,081
2608	OCP-2000	0	0	0	0	561	1,990
2609	OCP-2000	0	0	0	0	649	5,064
2610	OCP-2000	0	0	0	0	126	1,713
2611	OCP-2000	0	0	0	0	626	1,543
2612	OCP-2000	0	0	0	0	1,022	3,091
2613	OCP-2000	0	0	0	0	1,374	3,350
2614	OCP-2000	156	156	401	440	592	1,462
2615	OCP-2000	1,898	1,898	4,872	5,349	483	663
2616	OCP-2000	870	870	2,231	2,453	937	947
2617	OCP-2000	1,257	1,257	3,222	3,543	314	314
2618	OCP-2000	0	0	0	0	42	747
2619	OCP-2000	461	461	1,182	1,300	945	2,163
2620	OCP-2000	206	352	528	988	707	1,417
2621	OCP-2000	0	0	0	0	880	2,121
2622	OCP-2000	1,318	1,318	3,379	3,714	460	1,072
2623	OCP-2000	600	600	1,535	1,687	134	134
2624	OCP-2000	435	435	1,115	1,225	450	460
2625	OCP-2000	523	523	1,369	1,306	190	270
2626	OCP-2000	418	418	1,499	1,430	153	153
2627	OCP-2000	723	723	2,393	2,282	281	422
2628	OCP-2000	491	491	1,567	1,494	239	273
2629	OCP-2000	802	802	2,599	2,488	364	409

Table A-1 (cont)
 EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		---- Population ----		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2630	OCP-2000	719	719	2,412	2,306	1,077	1,136
2631	OCP-2000	810	810	2,495	2,386	271	314
2632	OCP-2000	476	476	1,653	1,583	239	392
2633	OCP-2000	1,176	1,176	3,448	3,289	2,184	2,330
2634	OCP-2000	228	228	367	350	256	281
2635	OCP-2000	710	710	1,635	1,558	475	631
2636	OCP-2000	907	907	3,115	2,976	2,501	2,820
2637	OCP-2000	445	445	1,594	1,521	551	590
2638	OCP-2000	542	542	1,946	2,255	142	149
2639	Land Use	425	425	1,318	1,318	253	422
	OCP-2000	425	427	1,415	1,424	246	246
2640	OCP-2000	922	922	3,018	3,495	394	410
2641	Land Use	298	298	924	924	1	1
	OCP-2000	298	300	937	942	0	0
2642	Land Use	547	547	1,696	1,696	24	24
	OCP-2000	549	550	1,660	1,663	16	16
2643	Land Use	1,172	1,172	3,633	3,633	432	432
	OCP-2000	1,172	1,175	3,863	3,850	394	394
2644	Land Use	364	364	1,128	1,128	4	4
	OCP-2000	374	376	1,158	1,153	0	0
2645	Land Use	677	677	2,099	2,099	128	161
	OCP-2000	700	701	2,247	2,236	116	116
2646	Land Use	1,499	1,499	4,073	4,073	16	16
	OCP-2000	1,522	1,526	3,595	3,628	0	0
2647	Land Use	483	483	1,497	1,497	1	1
	OCP-2000	490	492	1,543	1,571	0	0
2648	Land Use	981	981	3,041	3,041	2	2
	OCP-2000	981	983	3,419	3,485	0	0
2649	OCP-2000	381	381	1,242	1,332	128	128
2650	Land Use	433	433	1,269	1,269	269	269
	OCP-2000	439	439	974	979	238	238
2651	Land Use	627	627	1,901	1,901	1	1
	OCP-2000	636	636	1,891	1,919	0	0
2652	OCP-2000	568	694	2,025	2,866	591	595
2653	Land Use	644	644	1,868	1,868	106	116
	OCP-2000	644	645	1,485	1,572	102	135
2654	Land Use	894	894	2,771	2,771	3,022	4,182
	OCP-2000	894	897	1,767	1,862	2,825	3,977
2655	Land Use	429	429	1,330	1,330	19	19
	OCP-2000	429	431	1,456	1,561	47	47
2656	Land Use	0	0	0	0	2,070	2,082
	OCP-2000	0	0	0	0	1,892	1,892
2657	OCP-2000	5	5	15	17	220	306

Table A-1 (cont)
EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		--- Population ---		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2658	OCP-2000	573	704	1,711	2,430	539	550
2659	OCP-2000	1,030	1,030	2,092	2,425	656	710
2660	OCP-2000	970	970	3,071	3,560	1,162	1,251
2661	OCP-2000	0	0	0	0	902	1,015
2662	Land Use	550	550	1,705	1,705	129	120
	OCP-2000	550	551	1,868	1,884	126	126
2663	Land Use	554	554	1,568	1,568	396	399
	OCP-2000	554	555	1,582	1,588	366	368
2664	Land Use	957	957	2,933	2,933	748	737
	OCP-2000	957	961	3,158	3,188	696	696
2665	Land Use	490	490	1,519	1,519	28	28
	OCP-2000	490	492	1,448	1,413	22	22
2666	Land Use	1,101	1,101	3,389	3,389	95	89
	OCP-2000	1,101	1,103	3,496	3,409	92	92
2667	Land Use	500	500	1,550	1,550	0	0
	OCP-2000	502	504	1,646	1,610	0	0
2668	Land Use	765	765	2,371	2,371	815	799
	OCP-2000	768	769	2,399	2,380	851	851
2669	Land Use	827	827	2,564	2,564	352	332
	OCP-2000	830	833	2,635	2,620	475	511
2670	Land Use	136	468	422	1,451	0	0
	OCP-2000	136	468	318	1,088	0	0
2671	Land Use	502	502	1,319	1,319	82	82
	OCP-2000	536	538	610	590	78	78
2672	Land Use	829	829	1,161	1,161	233	233
	OCP-2000	885	887	1,694	1,676	203	203
2673	Land Use	1,292	1,319	2,142	2,180	2	2
	OCP-2000	1,379	1,381	3,220	3,211	0	0
2674	Land Use	828	828	2,567	2,567	373	412
	OCP-2000	884	886	3,465	3,506	322	323
2675	Land Use	773	773	2,396	2,396	54	84
	OCP-2000	773	774	2,676	2,688	50	50
2676	Land Use	744	744	2,306	2,306	146	254
	OCP-2000	798	801	2,624	2,637	140	140
2677	Land Use	398	398	1,117	1,117	163	163
	OCP-2000	398	400	1,065	1,065	128	128
2678	Land Use	527	527	1,634	1,634	666	959
	OCP-2000	577	579	1,952	1,971	641	837
2679	Land Use	769	769	2,325	2,325	86	74
	OCP-2000	769	772	2,323	2,340	249	334
2680	Land Use	722	644	1,851	1,741	1,776	2,006
	OCP-2000	499	501	1,507	1,562	359	429
2681	Land Use	852	1,448	2,341	3,771	2,834	3,113
	OCP-2000	684	1,283	2,049	3,966	2,754	3,567

Table A-1 (cont)
 EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		--- Population ---		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2682	OCP-2000	0	0	0	0	0	0
2683	Land Use	1,188	1,188	3,683	3,683	1	1
	OCP-2000	1,230	1,232	3,448	3,633	0	0
2684	Land Use	943	943	2,855	2,855	966	966
	OCP-2000	943	943	2,538	2,700	819	882
2685	Land Use	383	383	1,187	1,187	0	0
	OCP-2000	372	374	1,031	1,101	0	0
2686	Land Use	859	859	2,528	2,528	99	132
	OCP-2000	896	898	2,515	2,649	96	98
2687	Land Use	1,010	1,010	2,908	2,908	112	143
	OCP-2000	1,053	1,055	2,919	3,109	105	106
2688	Land Use	564	564	1,748	1,748	0	0
	OCP-2000	588	590	1,629	1,737	0	0
2689	Land Use	340	340	1,054	1,054	3	3
	OCP-2000	345	345	1,004	1,071	11	11
2690	Land Use	622	622	1,753	1,753	1,123	1,956
	OCP-2000	622	622	1,283	1,249	1,267	2,133
2691	Land Use	0	0	0	0	3,664	3,960
	OCP-2000	0	0	0	0	3,146	3,394
2692	Land Use	701	767	1,784	1,877	3,035	2,569
	OCP-2000	701	703	1,742	1,710	3,182	3,244
2693	Land Use	156	156	484	484	575	635
	OCP-2000	156	156	638	634	0	0
2694	Land Use	678	678	2,145	2,145	55	171
	OCP-2000	930	989	3,017	3,149	759	1,654
2695	OCP-2000	199	948	590	2,957	53	53
2696	OCP-2000	129	295	360	833	41	41
2697	OCP-2000	220	240	615	679	100	102
2698	OCP-2000	81	272	225	768	16	22
2699	OCP-2000	45	84	124	238	29	30
2700	OCP-2000	11	11	32	31	153	153
2701	OCP-2000	113	389	307	1,100	0	2
2702	OCP-2000	1,474	1,516	4,739	5,090	343	343
2703	OCP-2000	290	290	933	973	276	276
2704	Land Use	1,323	1,323	2,569	2,569	2	2
	OCP-2000	1,323	1,412	3,102	3,514	0	0
2705	Land Use	904	934	1,714	1,883	51	54
	OCP-2000	951	982	1,699	1,868	51	54
2706	Land Use	312	312	905	905	468	468
	OCP-2000	423	423	1,035	1,102	427	427
2707	Land Use	546	316	1,310	758	908	1,007
	OCP-2000	546	581	1,258	1,421	827	849
2708	Land Use	244	625	725	1,813	6	50
	OCP-2000	244	486	562	1,189	0	0

Table A-1 (cont)
 EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		--- Population ---		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2709	OCP-2000	628	628	1,861	1,959	120	120
2710	OCP-2000	683	683	2,026	2,130	309	309
2711	OCP-2000	1,106	1,106	3,284	3,450	155	155
2712	OCP-2000	652	688	1,933	2,146	49	49
2713	OCP-2000	686	686	2,094	2,231	92	104
2714	OCP-2000	5,676	5,774	15,583	16,773	3,584	3,584
2715	OCP-2000	0	0	0	0	888	1,018
2716	OCP-2000	1,120	1,120	3,080	3,213	599	599
2717	OCP-2000	455	455	1,256	1,305	77	77
2718	OCP-2000	642	773	1,761	2,218	1,772	2,780
2719	OCP-2000	82	82	225	235	14	14
2720	OCP-2000	0	0	0	0	2,378	3,625
2721	OCP-2000	0	0	0	0	773	1,720
2722	OCP-2000	0	0	0	0	922	1,686
2723	OCP-2000	154	255	425	732	20	20
2724	OCP-2000	1,044	1,068	2,879	3,065	291	291
2725	OCP-2000	565	565	1,550	1,621	1,646	2,404
2726	OCP-2000	150	172	412	493	777	1,729
2727	OCP-2000	633	633	1,755	1,918	0	0
2728	OCP-2000	491	497	1,361	1,506	55	124
2729	OCP-2000	0	24	0	69	0	0
2730	OCP-2000	0	0	0	0	5	5
2731	OCP-2000	873	999	2,803	3,354	408	412
2732	OCP-2000	1,151	1,212	3,195	3,425	497	794
2733	OCP-2000	125	161	335	455	298	298
2734	OCP-2000	1,223	1,223	3,412	3,456	212	212
2735	OCP-2000	72	142	194	401	15	15
2736	OCP-2000	1,204	2,612	3,339	7,381	178	178
2737	OCP-2000	1,033	1,033	2,767	2,919	130	130
2738	OCP-2000	187	187	508	528	0	0
2739	OCP-2000	0	14	0	39	6	6
2740	OCP-2000	0	0	0	0	40	40
2741	Land Use	961	1,133	3,157	3,655	11	11
	OCP-2000	162	663	401	1,725	0	33
2742	OCP-2000	459	765	1,135	1,990	0	0
2743	OCP-2000	0	484	0	1,109	0	0
2744	OCP-2000	0	0	0	0	0	0
2745	OCP-2000	0	567	0	1,300	201	201
2746	Land Use	0	154	0	216	0	12
	OCP-2000	0	99	0	231	0	0
2747	OCP-2000	72	340	159	795	0	131
2748	Land Use	0	2,214	0	7,039	0	179
	OCP-2000	306	2,387	1,209	9,655	0	86

Table A-1 (cont)
 EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		--- Population ---		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2749	Land Use	0	2,033	0	6,312	0	755
	OCP-2000	421	1,998	1,664	8,128	0	129
2750	Land Use	0	198	0	465	0	1,038
	OCP-2000	0	203	0	474	0	2,178
2751	Land Use	0	229	0	664	0	811
	OCP-2000	0	198	0	465	0	287
2752	OCP-2000	0	0	0	0	0	0
2753	OCP-2000	0	130	0	299	0	423
2754	OCP-2000	0	1,255	0	2,890	0	0
2755	OCP-2000	0	1,320	0	3,036	203	223
2756	OCP-2000	0	0	0	0	104	104
2757	Land Use	0	2,375	0	8,018	120	263
	OCP-2000	0	1,560	0	3,647	13	13
2758	OCP-2000	0	180	0	415	10	742
2759	Land Use	289	379	911	1,197	1,832	1,940
	OCP-2000	339	381	840	929	782	782
2760	Land Use	339	369	1,119	1,218	387	387
	OCP-2000	392	392	1,284	1,262	781	781
2761	Land Use	384	449	1,097	1,311	0	0
	OCP-2000	363	363	1,263	1,242	357	357
2762	OCP-2000	0	3,600	0	8,315	905	927
2763	OCP-2000	0	3,770	0	8,703	22	2,839
2764	Land Use	702	725	2,230	2,300	155	188
	OCP-2000	225	294	746	958	248	249
2765	Land Use	481	567	1,515	1,714	53	415
	OCP-2000	585	755	2,134	2,482	201	276
2766	OCP-2000	0	440	0	1,040	0	0
2767	OCP-2000	0	3,925	0	9,277	3	3
2768	OCP-2000	0	158	0	373	0	0
2769	OCP-2000	0	0	0	0	0	0
2770	OCP-2000	0	0	0	0	0	0
2771	Land Use	254	1,677	686	4,528	29	168
	OCP-2000	0	1,300	0	3,977	81	695
2772	Land Use	0	421	0	1,137	0	26
	OCP-2000	0	116	0	355	0	341
2773	OCP-2000	0	2,542	0	6,005	0	800
2774	Land Use	0	235	0	635	0	0
	OCP-2000	0	217	0	664	0	451
2775	Land Use	0	333	0	833	0	1,054
	OCP-2000	0	353	0	1,080	0	266
2776	OCP-2000	0	0	0	0	0	4,055
2777	OCP-2000	0	0	0	0	0	0
2778	OCP-2000	20	2,300	47	5,432	3	233

Table A-1 (cont)
 EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		--- Population ---		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2779	OCP-2000	0	340	0	802	0	0
2780	OCP-2000	0	1,800	0	4,256	0	4,019
2781	OCP-2000	0	0	0	0	0	0
2782	OCP-2000	0	115	0	238	0	0
2783	OCP-2000	0	76	0	158	0	0
2784	OCP-2000	0	113	0	235	0	0
2785	OCP-2000	0	123	0	256	55	176
2786	OCP-2000	0	411	0	854	0	41
2787	OCP-2000	157	157	296	327	147	147
2788	OCP-2000	0	109	0	226	0	0
2789	OCP-2000	0	0	0	0	0	0
2790	OCP-2000	0	0	0	0	0	0
2791	OCP-2000	1,985	2,009	3,855	4,212	2,476	3,007
2792	OCP-2000	2,251	2,284	3,667	3,986	5,511	5,936
2793	OCP-2000	1,196	1,210	2,650	2,882	726	1,235
2794	OCP-2000	0	0	0	0	9	9
2795	OCP-2000	2,073	2,104	4,499	4,892	2,176	3,230
2796	OCP-2000	2,593	2,627	5,562	6,040	874	1,057
2797	OCP-2000	16	17	37	41	39	39
2798	OCP-2000	672	683	1,142	1,236	66	71
2799	OCP-2000	0	0	0	0	0	1
2800	OCP-2000	2,315	2,315	3,731	3,836	414	419
2801	OCP-2000	1,516	1,516	2,150	2,206	94	94
2802	OCP-2000	0	342	0	1,007	0	0
2803	OCP-2000	0	621	0	1,828	0	95
2804	OCP-2000	0	0	0	0	2,420	3,222
2805	OCP-2000	277	292	837	912	1,862	1,871
2806	OCP-2000	0	0	0	0	403	668
2807	OCP-2000	1,637	1,650	4,856	5,055	159	184
2808	OCP-2000	0	0	0	0	3,079	4,420
2809	OCP-2000	222	222	408	428	3,235	4,881
2810	OCP-2000	0	0	0	0	112	113
2811	OCP-2000	2,799	2,799	4,466	4,666	1,764	2,019
2812	OCP-2000	450	450	1,054	1,149	397	397
2813	OCP-2000	281	281	658	717	66	102
2814	OCP-2000	3,137	3,137	7,354	7,958	142	142
2815	OCP-2000	942	942	2,209	2,405	2,619	2,619
2816	OCP-2000	0	0	0	0	3,113	3,113
2817	OCP-2000	1,687	1,687	2,399	2,466	614	654
2818	OCP-2000	5,693	5,693	7,815	8,227	415	415
2819	OCP-2000	759	872	1,780	2,131	3,564	3,863
2820	OCP-2000	2,471	2,471	4,724	4,985	97	110
2821	OCP-2000	539	540	1,030	1,107	102	102

Table A-1 (cont)
 EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		--- Population ---		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2822	OCP-2000	352	352	1,127	1,164	119	278
2823	OCP-2000	1,146	1,146	3,929	4,048	1,323	1,444
2824	OCP-2000	542	542	2,196	2,255	1,060	1,140
2825	OCP-2000	645	645	2,107	2,173	703	739
2826	OCP-2000	283	283	876	905	303	599
2827	Land Use	0	0	0	0	1,684	1,770
	OCP-2000	0	0	0	0	1,684	1,770
2828	OCP-2000	1,942	1,942	4,552	4,958	153	153
2829	OCP-2000	279	279	654	713	32	659
2830	OCP-2000	1,010	1,010	2,368	2,579	249	249
2831	OCP-2000	1,241	2,230	2,662	5,505	27	439
2832	OCP-2000	0	0	0	0	688	6,285
2833	OCP-2000	838	838	1,964	2,140	76	76
2834	OCP-2000	1,768	1,768	4,146	4,513	46	818
2835	OCP-2000	0	0	0	0	74	74
2836	OCP-2000	0	0	0	0	908	1,675
2837	OCP-2000	814	2,324	1,746	5,739	1,214	2,970
2838	OCP-2000	930	1,416	2,180	3,616	587	587
2839	OCP-2000	1,621	1,621	3,114	3,436	362	362
2840	OCP-2000	861	861	1,759	2,037	203	203
2841	OCP-2000	81	81	140	148	470	551
2842	OCP-2000	0	0	0	0	420	420
2843	OCP-2000	0	0	0	0	4,496	8,889
2844	OCP-2000	1,282	1,284	3,887	4,023	975	1,226
2845	OCP-2000	942	943	2,969	3,068	524	544
2846	OCP-2000	778	783	2,088	2,214	803	828
2847	OCP-2000	587	591	1,920	2,038	200	209
2848	OCP-2000	0	0	0	0	1,534	1,630
2849	OCP-2000	1,117	1,350	2,674	2,835	1,507	1,615
2850	OCP-2000	0	0	0	0	35	36
2851	OCP-2000	418	515	426	1,138	2	2
2852	OCP-2000	843	872	2,247	2,678	216	251
2853	OCP-2000	791	821	2,543	3,047	377	377
2854	OCP-2000	1,782	1,800	3,733	4,649	986	1,505
2855	Land Use	1,570	1,654	4,629	4,983	3,731	5,845
	OCP-2000	1,622	1,631	4,629	4,818	3,731	4,875
2856	OCP-2000	1,091	1,105	1,872	2,027	774	1,245
2857	OCP-2000	1,752	1,784	3,509	3,830	2,235	2,632
2858	OCP-2000	988	1,017	2,574	2,861	293	293
2859	OCP-2000	1,672	1,698	3,452	3,818	507	967
2860	OCP-2000	928	959	2,181	2,395	251	251
2861	OCP-2000	400	425	929	1,088	161	161
2862	OCP-2000	460	488	837	971	243	775

Table A-1 (cont)
 EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		--- Population ---		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2863	OCP-2000	218	248	523	642	381	381
2864	OCP-2000	1,023	1,067	1,969	2,167	443	575
2865	OCP-2000	413	414	1,093	1,156	470	485
2866	OCP-2000	367	368	959	1,014	309	310
2867	OCP-2000	683	688	1,732	1,833	434	439
2868	OCP-2000	1,268	1,268	1,823	1,919	344	349
2869	OCP-2000	0	0	0	0	496	1,540
2870	OCP-2000	1,052	1,070	2,083	2,236	1,746	2,619
2871	OCP-2000	457	464	1,924	2,062	177	177
2872	OCP-2000	3,160	3,162	8,787	9,257	1,075	1,075
2873	OCP-2000	1,834	1,834	4,850	5,109	665	675
2874	OCP-2000	227	230	584	623	462	462
2875	Land Use	53	573	84	1,196	122	410
	OCP-2000	0	0	0	0	117	782
2876	OCP-2000	288	295	1,281	1,384	161	161
2877	OCP-2000	1,112	1,148	2,763	3,134	555	555
2878	OCP-2000	219	232	598	701	67	67
2879	OCP-2000	299	318	1,034	1,200	85	85
2880	OCP-2000	439	465	630	737	925	1,081
2881	OCP-2000	445	463	1,101	1,261	299	299
2882	OCP-2000	444	473	1,611	1,885	238	256
2883	OCP-2000	770	805	2,030	2,294	196	196
2884	OCP-2000	330	393	556	720	1,122	1,592
2885	OCP-2000	834	971	1,481	1,872	627	789
2886	OCP-2000	973	980	1,771	1,938	274	283
2887	OCP-2000	584	593	1,101	1,214	503	597
2888	OCP-2000	2,204	2,211	5,258	5,663	810	935
2889	OCP-2000	917	921	2,188	2,360	773	878
2890	OCP-2000	338	341	805	874	130	131
2891	OCP-2000	136	136	325	350	113	113
2892	Land Use	878	975	2,797	3,110	0	0
	OCP-2000	940	1,045	2,916	3,405	693	693
2893	OCP-2000	74	78	157	173	205	205
2894	Land Use	0	399	0	1,186	0	0
	OCP-2000	27	214	102	829	9	10
2895	OCP-2000	879	901	2,645	2,952	413	425
2896	OCP-2000	341	426	887	1,204	682	843
2897	Land Use	675	675	1,901	1,901	637	638
	OCP-2000	625	631	2,176	2,309	679	744
2898	Land Use	628	730	1,144	1,465	232	291
	OCP-2000	465	639	933	1,347	366	366
2899	Land Use	1,726	1,703	5,704	6,020	455	455
	OCP-2000	1,772	1,780	5,491	5,922	455	455

Table A-1 (cont)
 EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		--- Population ---		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2900	OCP-2000	116	125	233	279	348	479
2901	Land Use	760	760	2,395	2,395	998	2,245
	OCP-2000	1,105	1,503	2,980	4,258	555	906
2902	Land Use	845	845	2,420	2,420	1,157	1,307
	OCP-2000	606	662	2,567	2,831	2,151	2,370
2903	Land Use	32	32	101	101	3,074	3,179
	OCP-2000	64	64	181	190	1,578	1,630
2904	Land Use	67	193	221	618	30	824
	OCP-2000	116	255	389	887	215	216
2905	Land Use	343	343	480	480	2,081	2,600
	OCP-2000	100	100	400	383	2,411	2,673
2906	Land Use	201	201	633	633	0	0
	OCP-2000	343	343	952	1,000	72	72
2907	Land Use	179	632	420	1,560	100	1,085
	OCP-2000	251	361	695	1,051	139	1,343
2908	Land Use	375	375	835	835	176	176
	OCP-2000	141	141	230	242	136	309
2909	Land Use	751	920	2,440	2,977	0	0
	OCP-2000	510	657	1,000	1,354	208	208
2910	Land Use	0	103	0	340	220	220
	OCP-2000	725	728	2,095	2,211	278	282
2911	Land Use	0	0	0	0	20	20
	OCP-2000	0	0	0	0	189	189
2912	Land Use	812	828	2,154	2,197	0	0
	OCP-2000	1,033	1,147	2,853	3,161	234	234
2913	OCP-2000	0	0	0	0	0	0
2914	Land Use	846	1,175	2,665	3,705	60	60
	OCP-2000	1,022	1,520	2,743	4,288	336	336
2915	Land Use	1,434	1,476	3,859	3,972	565	774
	OCP-2000	1,154	1,189	3,187	3,467	508	704
2916	Land Use	764	815	2,028	2,166	1,676	2,279
	OCP-2000	488	525	1,350	1,447	1,899	2,410
2917	Land Use	975	1,149	2,633	3,224	737	802
	OCP-2000	870	940	2,371	2,648	1,167	1,609
2918	OCP-2000	1,253	1,312	3,095	3,572	993	1,234
2919	OCP-2000	196	198	485	541	978	1,606
2920	OCP-2000	1,484	1,506	3,665	4,091	636	795
2921	OCP-2000	100	101	249	278	972	1,448
2922	OCP-2000	96	97	240	266	1,085	1,309
2923	Land Use	203	203	447	447	3,001	3,385
	OCP-2000	259	259	393	414	2,928	4,035
2924	OCP-2000	301	368	716	951	1,198	1,849
2925	OCP-2000	59	59	102	107	103	245

Table A-1 (cont)
 EXISTING AND FUTURE DEMOGRAPHIC DATA

OCTAM Zone	Source	-- Dwelling Units --		--- Population ---		--- Employment ---	
		2000	2025	2000	2025	2000	2025
2926	OCP-2000	853	903	2,035	2,340	489	684
2927	OCP-2000	1,361	1,411	3,175	3,552	426	596
2928	Land Use	537	1,166	1,450	3,148	220	558
	OCP-2000	388	852	1,219	2,716	264	424
2929	Land Use	192	346	518	934	0	0
	OCP-2000	192	350	603	1,116	33	94
2930	OCP-2000	40	40	113	122	12	12
2931	Land Use	1,651	1,944	4,458	5,249	0	5
	OCP-2000	2,239	2,654	6,126	7,356	727	865
2932	Land Use	925	992	2,497	2,678	348	1,596
	OCP-2000	912	1,011	2,551	2,862	699	1,593
2933	Land Use	811	1,235	2,014	3,159	735	3,106
	OCP-2000	752	1,188	1,486	2,400	3,687	6,475
2934	Land Use	2,170	2,170	5,659	5,659	8,334	11,979
	OCP-2000	2,289	2,292	4,470	4,553	4,381	6,098
2935	Land Use	0	0	0	0	638	806
	OCP-2000	0	0	0	0	28	37
2936	Land Use	3,092	3,375	8,254	9,007	1,260	2,201
	OCP-2000	3,468	3,591	8,687	9,152	2,707	4,856
2937	Land Use	733	884	1,803	2,180	639	714
	OCP-2000	1,044	1,147	2,559	2,871	370	684
2938	Land Use	434	535	1,105	1,365	1,624	1,766
	OCP-2000	466	510	1,314	1,470	2,299	3,307
2939	Land Use	3,378	4,510	8,345	11,181	2,741	5,126
	OCP-2000	3,146	3,293	5,932	6,330	1,835	2,586
2940	Land Use	2,579	2,906	6,711	7,576	942	2,114
	OCP-2000	3,316	3,439	7,546	7,988	1,806	2,794

Table A-2 SUMMARY OF CUMULATIVE PROJECTS IN THE STUDY AREA	
ROLLING HILLS PLANNED COMMUNITY (THE PART OF THE TALEGA DEVELOPMENT IN UNINCORPORATED ORANGE COUNTY)	
Description of Project Land Uses	Source/Reference
772 ha (1,906 acres). 2,700 dwelling units (dus). Business and commercial uses. Public facilities.	“Final Environmental Impact Report Zone Change ZC 86-31P, Planned Community District Regulations, Feature Plan FP 88-1P, Rolling Hills, EIR No. 482” (County of Orange Environmental Management Agency, May 4, 1988).
TALEGA VALLEY SPECIFIC PLAN (CHAMPION HILLS; THE PART OF THE TALEGA DEVELOPMENT IN THE CITY OF SAN CLEMENTE)	
Description of Project Land Uses	Source/Reference
6,496 ha (1,604 acres). 2,265 dus. 357 ha (822 acres) open space. 66.8 ha (165 acres) golf course. 70.9 ha (175 acres) Rancho Mission Viejo Land Conservancy. Business and commercial uses. Public facilities.	“Draft Environmental Impact Report Talega Valley Specific Plan” (City of San Clemente, November 24, 2001).
CHIQUITA CANYON HIGH SCHOOL (NOW REFERRED TO AS TESORO HIGH SCHOOL)	
Description of Project Land Uses	Source/Reference
16.2 hectares (ha, 40 acres). 18,600 square meters (200,000 square feet) of buildings with 85 classrooms. Design capacity of 3,100 students.	“Final Environmental Impact Report for Chiquita Canyon High School” (Capistrano Unified School District, March 25, 1996).
PRIMA DESHECHA SANITARY LANDFILL GENERAL DEVELOPMENT PLAN (GDP)	
Description of Project Land Uses	Source/Reference
The GDP calls for continued landfilling through 2050 and the development of a regional park after the landfilling is terminated.	“Draft Environmental Impact Report No. 575 2001 Prima Deshecha General Development Plan: Landfill Component, Circulation Component and Recreation Component” (Orange County Integrated Waste Management Department, January 31, 2001).
WHISPERING HILLS PLANNED COMMUNITY	
Description of Project Land Uses	Source/Reference
High school on 70.9 ha (175 ac). 193 single family dus and 73.3 ha (181 ac) open space.	Whispering Hills Revised Draft EIR (City of San Juan Capistrano, November 2001). Project was approved April 2002. Residential/open space component was repealed by residents (November 2002 election). School District passed exemptions from City zoning and is proceeding with development of school.
FORSTER RANCH SPECIFIC PLAN AMENDMENT	
Description of Project Land Uses	Source/Reference
1,617 dus on 218.3 ha (538.9 ac). 5.6 ha (14 ac) civic center. 2.8 ha (7 ac) commercial. 77.8 ha (192 ac) institutional. 15.6 ha (38.5 ac) public and roads. 154.7 ha (382 ac) open space and greenbelt.	“Subsequent Environmental Impact Report Forster Ranch Specific Plan Amendment” (City of San Clemente, September 23, 1997).

Table A-2 (cont) SUMMARY OF CUMULATIVE PROJECTS IN THE STUDY AREA	
MARBLEHEAD COASTAL	
Description of Project Land Uses	Source/Reference
Revised Proposal (2003): 101.5 ha (250.6 ac) site. 313 du on 25.1 ha (61.9 ac). 62,797.6 sm (675,243 sf) commercial. 36.4 ha (89.8 ac) parks and open space. 4.2 ha (10.4 ac) roads.	Revised proposal approved by the California Coastal Commission (CCC) on April 9, 2003 (Los Angeles Times, April 10, 2003). Revised documents will need to be prepared by the City of San Clemente consistent with the project approved by the CCC. Previous environmental documentation: "Final Environmental Impact Report for Marblehead Coastal General Plan Amendment 96-01, Specific 95-02 and Tentative Tract Map" (City of San Clemente, August 5, 1998).
PACIFIC POINT/SAN JUAN MEADOWS	
Description of Project Land Uses	Source/Reference
617 dus on 71.3 ha (176 acres). 10.2 ha (25 acres) research and development. 3.2 ha (7.8 acres) public and institutional. 32.4 ha (80 acres) open space, recreation and parks.	"Final Environmental Impact Report Pacific Point Amendment to Coastal Development Permit 81-1 (RZ 89-07) and General Plan Amendment GP 90-08" (City of San Juan Capistrano, August 1, 1991).
ANTONIO PARKWAY ROADWAY ALIGNMENT AND LAND USE PLAN (LADERA PLANNED COMMUNITY)	
Description of Project Land Uses	Source/Reference
<u>Roadway Alignment</u> Alignment of Antonio Parkway between Oso Parkway and Ortega Highway. Addition of a secondary arterial from Crown Valley to Antonio Parkway. Deletions of extensions of Avery Parkway and Trabuco Creek Parkway from the MPAH. Deletion of a Class II bikeway on Avery Parkway from the Bikeways Master Plan. Redesignation of Avery Parkway as a landscape corridor in the Master Plan of Scenic Highways (MPSH). Deletion of Trabuco Creek Road from the MPSH. <u>Land Uses</u> 968 ha (2,390 acres). 8,100 dus. 45 ha (111 acres) urban activity centers. 23.9 ha (59 acres) parks and public facilities. 10.1 ha (25 acres) commercial uses. 243 ha (600 acres) open space.	"Draft Environmental Impact Report No. 555 Antonio Parkway Roadway Alignment and Land Use Plan: Land Use Element Amendment 95-4, Transportation Element Amendment 95-3, Community Profile Amendment 95-2 and Zone Change 94-5" (County of Orange Environmental Management Agency, May 1995).
ARROYO TRABUCO GOLF COURSE	
Description of Project Land Uses	Source/Reference
17.4 ha (43 acres). 18 hole golf course and accessory facilities. 25.5 ha (63 acres) ungraded natural land.	"Draft Environmental Impact Report Arroyo Trabuco Golf Course" (County of Orange Planning and Development Services Department, May 2001).

Table A-2 (cont) SUMMARY OF CUMULATIVE PROJECTS IN THE STUDY AREA	
RANCHO MISSION VIEJO GENERAL PLAN AMENDMENT (GPA)/ZONE CHANGE (ZC)	
Description of Project Land Uses	Source/Reference
Approximately 9,254 ha (22,850 ac) site, up to 14,000 dus, 52.7 ha (130 ac) of urban activity center, 104.5 ha (258 ac) of business park, 15.8 ha (39 ac) neighborhood center uses, up to four golf courses, a 437 ha (1,079 ac) regional park and 5,330.2 ha (13,161 ac) of open space of which 170 ha (420 ac) would be 100 residential sites, a golf course with attached dus, equestrian facilities and ranching activities. Amendments to the Land Use, Transportation, Resources and Recreation Elements of the General Plan and Zone Change from A-1 (General Agriculture and Sand and Gravel) to PC (Planned Community). Being processed concurrently with the SAMP and the NCCP.	Draft Rancho Mission Viejo Development Application (County of Orange Planning and Development Services Department, November 8, 2001). Notice of Preparation to Prepare a Draft Environmental Impact Report for the Rancho Mission Viejo General Plan Amendment/Zone Change (PA 01-114), the Ranch Plan, County of Orange, February 24, 2003.
ORANGE COUNTY PROJECTIONS (OCP) – 2000 FOR RMV	
Description of Project Land Uses	Source/Reference
21,000 dus projected for Rancho Mission Viejo buildout in 2025	OCP-2000 (Orange County Council of Governments, June 2000). OCP-2000 is the adopted regional demographic projections (population and employment). No land uses or development entitlements are generated by these forecasts. OCP-2000 is included in the list of major cumulative projects to provide long term demographic data considered in the cumulative impacts analysis.
SOUTH SUBREGION NATURAL COMMUNITY CONSERVATION PLAN/ HABITAT CONSERVATION PLAN (NCCP/HCP)	
Description of Project Land Uses	Source/Reference
Undefined Actions. Undefined NCCP and SAMP. May determine the locations of development and habitat reserves, but it is unlikely that the intensity of development would change.	Federal Register Notice of Intent to prepare an Environmental Impact Statement (United States Fish and Wildlife Service, August 23, 2001). No environmental documents are available.
MCB CAMP PENDLETON	
Description of Project Land Uses	Source/Reference
Helicopter Outlying Lift Field (HOLF) mitigation area: conversion of approximately 15 ha (36 ac) of agricultural land to coastal sage scrub. Project is underway, with completion anticipated in 2003.	L. Rannals (01/03).
Refer to Table 5.1-2 for a listing of other minor improvement projects on Camp Pendleton.	“Marine Corps Base Camp Pendleton, California Master Plan” (Southwest Division Naval Facilities Engineering Command, September 1992).
San Onofre State Beach Outlease <u>Existing Uses</u> : campgrounds, beach trails. <u>Proposed Uses</u> : 18-hole golf course, primitive trails, secondary access from Avenida La Pata and tourist commercial.	San Onofre State Beach General Plan (1984), Mitigation from San Onofre Nuclear Generating Station Parking Lot Mitigation and Marine Corps Base Camp Pendleton, California Mater Plan (September 1992).

Table A-2 (cont) SUMMARY OF CUMULATIVE PROJECTS IN THE STUDY AREA	
REUSE OF THE MARINE CORPS AIR STATION (MCAS) EL TORO (NOW REFERRED TO AS THE ORANGE COUNTY GREAT PARK)	
Description of Project Land Uses	Source/Reference
<p>Civilian international airport, park/open space, residential, commercial, industrial and public uses on approximately 1,900 ha (4,693 ac). This plan was rejected by the voters in 2002.</p> <p>Orange County "Great Park" which includes parks museums, open space and tourist uses. Private sale may change use. This land use plan was accepted by the voters in 2002. The proposed project includes annexation, General Plan and Zoning Amendments to accommodate a comprehensive land use plan occupying 35.9 ha (3,856,500 sf) including residential (225 dus), educational, cultural and institutional, transportation facilities, research and development, retail, office, auto center, agricultural, open space and road uses.</p>	<p>"Draft Environmental Impact Report No. 573 for the Civilian Reuse of MCAS El Toro and the Airport System Master Plan for John Wayne Airport and Proposed Orange County International Airport" (County of Orange, December 1999).</p> <p>File Nos. 47782-GA and 47785-ZC. Draft Environmental Impact Report (SCH No. 2002101020) City of Irvine, February 2003.</p>
PROPOSED SADDLE CREEK/SADDLE CREST (FOOTHILL/TRABUCO AREA OF UNINCORPORATED ORANGE COUNTY)	
Description of Project Land Uses	Source/Reference
<p>Zone Change to amend the Foothill/Trabuco Specific Plan to allow for: <u>Saddle Creek</u>: 127dus on 196 ha (484 ac). <u>Saddle Crest</u>: 35 dus on 46 ha (113.5 ac).</p>	<p>Zone change 99-02 for Area Plans 99-03 and 99-07. EIR No. 578 certified and Area Plans approved on January 28, 2003.</p>
SADDLEBACK MEADOWS (FOOTHILL AREA OF UNINCORPORATED ORANGE COUNTY)	
Description of Project Land Uses	Source/Reference
<p>Site is 90 ha (222 acres) Proposed: 299 single family residential units on 29.6 ha (73.1 acres) and open space on 60.3 ha (148.9 acres).</p>	<p>Saddleback Meadows Subsequent EIR 566 (County of Orange EIR 566 (1999) and Draft Subsequent EIR 566, April 2002).</p>
DANA POINT HEADLANDS	
Description of Project Land Uses	Source/Reference
<p><u>49 ha/121 ac site</u>: 125 single family dus. 3,720 sm (40,000 sf) commercial site. 65-room inn. 12.3 ha (30.3 ac) conservation open space. 12.9 ha (31.7 ac) recreation open space with 790 sm (8,500 sf) visitor serving recreation facilities.</p>	<p>Project approved and Final EIR were certified January 22, 2002. (Source: City of Dana Point website www.danapoint.org/commdevelopment/Headlands.htm. and personal communication with the City.) Project awaiting evaluation by the CCC.</p>

Table A-2 (cont) SUMMARY OF CUMULATIVE PROJECTS IN THE STUDY AREA		
HONEYMAN RANCH PROPOSED RESIDENTIAL DEVELOPMENT - SAN JUAN CAPISTRANO		
Description of Project Land Uses	Source/Reference	
129 du on 13.2 ha (32.4 ac). Open space 16.1 ha (39.8 ac). Private streets 1.9 ha (4.62 ac). Public streets 0.7 ha (1.79 ac).	Honeyman Ranch Final Draft EIR circulated November 12, 2002 (City of San Juan Capistrano, 2002).	
OTHER DEVELOPMENT PROJECTS IN THE STUDY AREA		
City of San Juan Capistrano		
Development	Quantity	Units
Home Depot		
Hardware Center	106.7	TSF
Garden Center	24.225	TSF
Retail Building	35.062	TSF
Valle Road Self Storage	107.358	TSF
Capistrano Ford Dealership Site 2 - Auto Sales	4.9	Acres
San Juan Meadows		
Single Family Residential	275	du
Senior Housing	165	du
Office	61.0	TSF
Glendale Federal parcels "C" and "D"		
Single Family Residential	52	du
Condominiums	286	du
City of San Juan Capistrano		
Development	Quantity	Units
Glendale Federal Area "H" (TT 13726)		
Single Family Residential	63	du
Concorde Development - Single Family Residential	79	du
Pacific Point		
Single Family Residential	617	du
R&D Office	25.0	Acres
Fluidmaster Manufacturing Facility	183.046	TSF
Calle Perfecto Business Park - Industrial	82.7	TSF
Calle Perfecto Business Park II		
Industrial Development	133.685	TSF
TT 15771 - Single Family Residential	28	du
Capistrano Volkswagen (Valle Rd. San Juan Creek Rd.)		
Auto Sales	16.8	TSF
San Juan Meadows Equestrian Stables	3	TSF
El Parador Hotel (San Juan Creek at Valle Rd.)	300	Rms
Alipaz Village - Residential	150	du
Weseloh Chevrolet/Honda (Camino Capistrano)		
Auto Sales	23.4	TSF
Serra Plaza Offices (Del Obispo at Paseo Adelanto)	45.5	TSF

Table A-2 (cont) SUMMARY OF CUMULATIVE PROJECTS IN THE STUDY AREA		
OTHER DEVELOPMENT PROJECTS IN THE STUDY AREA		
City of Dana Point		
Development	Quantity	Units
Hillside Village South (PCH south of Crown Valley Parkway) Residential	48	du
Capo by the Sea - Residential	48	du
Holtz Hill - Residential	13	du
Dana Point Harbor Expansion		
Office	28.5	TSF
Hotel	42	Rms
Quasi Institutional (Marine Institute)	50,700	TSF
Boat Storage (dry)	471	Stalls
Boat Storage (docked)	18	Slips
St. Regis Hotel Offices (Monarch Beach)	70	TSF
South Coast Water District Business Park		
Office	83.1	TSF
Research and Development	164.221	TSF
Research and Development-Multi-use Tenant	275.734	TSF
Storage	142.758	TSF
City of San Clemente		
Development	Quantity	Units
Plaza Pacifica Commercial Site (Rancho San Clemente)	460	TSF
Avenida Vista Hermosa Interchange	n/a	
Talega Subdivisions (269.1 gross acres)		
TT 16148 Area B-1A Village 3		
Single Family	245	du
Multiple Family	2	Lots
TT 16216 Area B-1B "Z" Lot - Single Family	91	du
TT 16215 Area B-1B Triplex - Multiple Family	144	du
TT 16252 Area A-2 Hammerhead - Single Family	76	du
MCB Camp Pendleton		
Development	Quantity	Units
San Mateo Point Housing	120	du
Expansion of existing SDG&E Substation	Minor	--
Amtrak/Caltrans EIS underway for second mainline track.	Unknown	--
Home Base (31a) and Vehicle Primary Training Area (31b)	Introduction of a tracked vehicle in training exercises; based in 62 Area northwest of the agricultural lease area; potential for training in that lease area.	--

Table A-2 (cont) SUMMARY OF CUMULATIVE PROJECTS IN THE STUDY AREA	
OTHER DEVELOPMENT PROJECTS LISTED IN THE STUDY AREA	
IRVINE RANCH WATER DISTRICT	
SAN DIEGO CREEK WATERSHED NATURAL TREATMENT SYSTEM PROGRAM	
Description of Project Land Uses	Source/Reference
Watershed treatment program for San Diego Creek with installation of Best Management Practices (BMPs) and detention basins in the watershed to reduce non-point source pollutants in runoff, water courses and beaches.	Irvine Ranch Water District Notice of Preparation (February 20, 2002). Project includes areas of Irvine, Lake Forest, Tustin between the Lomas de Santiago Ridge and the coastal bluffs of Newport Coast.

TSF: Thousand square feet
 du: Dwelling Unit

Table A-3 SUMMARY OF CUMULATIVE PROJECTS PROPOSED BY CALTRANS		
CALTRANS INTERSTATE 5 IMPROVEMENTS		
Description of Project	Status of Project	Environmental Compliance
<p>I-5/SR 74 Interchange Project</p> <p>This project in the PSR stage. Several alternatives have been proposed by the consultants (Parson) that will improve operations in the 5/74 interchange area. The ramps will be reconfigured concurrently with the realignment of Del Obispo. A roundabout at the intersection of Del Obispo and the 74 has also been proposed. The SOCTIIP proposal incorporates one of the original alternatives that was proposed by Parsons (cloverleaf ramp layout). This will probably not be selected.</p> <p>The are also proposing to add an off ramp at Camino Capistrano at Stonehill to divert some of the southbound traffic to Dan a Point away from the 5/74 area. The SOCTIIP I-5 Alternative will realign I-5 at this location.</p>	<p>PSR in progress. Environmental document will be prepared by the City of San Juan Capistrano which is the lead agency.</p>	<p>To be determined.</p>
<p>Avenida Pico (0E740K)-</p> <ul style="list-style-type: none"> Widening SB off-ramp to 2 lanes and aux. lane. (\$2 million) Widen Pico and n/b off ramp. 	<p>PSR completed. Anticipated environmental document would be a CE/CE.</p>	<p>To be prepared.</p>
<p>I-5 at La Paz Road (EA 0A070K)</p> <ul style="list-style-type: none"> Major construction at the interchange Alternatives study involves in widening La Paz, reconstructing bridge and realigning ramps. 	<p>PSR in progress. Environmental document is not yet determined.</p>	<p>To be determined.</p>
<p>SB I-5 El Toro Road (EA 09800K)</p> <ul style="list-style-type: none"> Propose new 3 lanes off-ramp with retaining wall. 	<p>PSR in progress. Anticipated environmental document would be an IS/EA probably leading to an ND/FONSI.</p>	<p>To be prepared.</p>
<p>I-5 at El Toro Road (EA 09800K)</p> <ul style="list-style-type: none"> Two new hook ramps to the Laguna Hill Mall New Intersection 	<p>PSR in progress. Anticipated environmental document would be an IS/EA probably leading to an ND/FONSI.</p>	<p>To be prepared.</p>
<p>I-5 San Mateo Creek Bridge</p> <ul style="list-style-type: none"> The bridge piers will be stabilized with cast in shell piles around the footings of piers 1-4. Permanent sheet piling will be placed around pier 5. Abatements have suffered moderate to severe erosion. They'll be cleared of vegetation compacted and have RSP with filter fabric placed on the surface. 	<p>Environmental document was completed.</p>	<p>CE/CE was completed.</p>
<p>The project did not incorporate the proposed on/off ramps on I-5 at Avenida De La Carlota, north of Los Alisos Blvd. Furthermore; there are operational concerns on the proposed reconfigured El Toro Road on/off ramps and their connectivity with Bridger Road and Avenida De La Carlota.</p>	<p>PSR in progress. Anticipated environmental document would be an IS/EA probably leading to an ND/FONSI.</p>	<p>To be prepared.</p>

Table A-3 (cont) SUMMARY OF CUMULATIVE PROJECTS PROPOSED BY CALTRANS		
CALTRANS INTERSTATE 5 IMPROVEMENTS		
Description of Project	Status of Project	Environmental Compliance
In San Juan Capistrano <ul style="list-style-type: none"> Widening Route 5 S/B off ramp at Camino Capistrano and widen a segment of Camino Capistrano south of the I-5. 	PSR in progress. Anticipated environmental document would be an IS/EA probably leading to an ND/FONSI.	To be prepared.
In Laguna Hills at Alicia (0E620K) <ul style="list-style-type: none"> Add auxiliary lane from Alicia SB off ramp to SB on ramp. 	PSR completed. Anticipated environmental document would be an IS/EA probably leading to an ND/FONSI.	To be prepared.
In Laguna Hills SB on & off ramps; El Toro Road RM 18.7; Avenue de La Carlota, Los Alisos <ul style="list-style-type: none"> Relocate SB I-5 on & off ramps; realign Frontage Road; Install signal. 	PSR completed. Anticipated environmental document would be an IS/EA probably leading to an ND/FONSI.	To be prepared.
In San Juan Capistrano at Camino Capistrano on ramp. Realign ramp; extend ramp meter limits.	PSR completed. Anticipated environmental document would be an IS/EA probably leading to an ND/FONSI.	To be prepared.
At Avenida Vista Hermosa (Reeves Ranch Overcrossing.) <ul style="list-style-type: none"> Construct interchange. 	This project has been completed by the City of San Clemente.	CE was completed by City of San Clemente.
In Orange County in Laguna Niguel, Laguna Hills, Mission Viejo and Lake Forest <ul style="list-style-type: none"> Construct HOV lanes. 	Environmental document is not yet determined.	To be determined.
On Route 5 from El Toro Road to Alton Parkway and on Route 405 from Route 5 to Irvine Center Drive (ORA 405 1.2/1.0) in Lake Forest <ul style="list-style-type: none"> Widen and reconstruct Freeway. 	Completed.	ND was approved on 4/10/90 and FONSI on 5/29/90.
OTHER CALTRANS PROJECTS		
In San Juan Capistrano from I-5/East City limit (Ortega Highway). <ul style="list-style-type: none"> Construct new interchange. 	PSR in progress. Environmental document will be prepared by the City of San Juan Capistrano.	To be determined.
On Route 74 from I-5 to Antonio Parkway (Ortega Highway). <ul style="list-style-type: none"> Widen roadway 	PSR completed. Anticipated environmental document is an IS/EA probably leading to an ND/FONSI (anticipated date Dec 2005).	To be prepared.
From Riverside County line to 4.8 km westerly (Ortega Highway). Project Study Report approved for alternatives (043200). <ul style="list-style-type: none"> Widen roadway 	PSR completed. Anticipated environmental document is an IS/EA (anticipated date 2004).	To be prepared.

Table A-3 (cont) SUMMARY OF CUMULATIVE PROJECTS PROPOSED BY CALTRANS		
OTHER CALTRANS PROJECTS		
Description of Project	Status of Project	Environmental Compliance
On Route 74 near Route 5/74 separation (Ortega Highway). <ul style="list-style-type: none"> Extend right turn lanes. 	In PSR stage. Environmental document is not yet determined.	To be determined.
Near San Juan Capistrano from 0.5 mile east of Ave Siega to 0.1 mile east of La Pata (Ortega Highway) (031813). <ul style="list-style-type: none"> Replace bridge/realign approaches. 	Completed.	CE.
FUTURE CALTRANS IMPROVEMENTS		
Description of Project	Status of Project	Environmental Compliance
I-5 (Pacific Coast Highway SR1 to Avenida Pico) <ul style="list-style-type: none"> North and southbound auxiliary HOV lanes. 	Environmental document is not yet determined.	To be determined.
I-5 (South of Basilone Road) <ul style="list-style-type: none"> North and southbound auxiliary HOV lanes. 	Environmental document is not yet determined.	To be determined.

Source: Caltrans District 12 list of projects proposed by Caltrans, October 15, 2001 and status of environmental documents provided September 16, 2002.

PSR	Project Study Report	ND	Negative Declaration
FONSI	Finding of no Significant Impact	IS	Initial Study
EA	Environmental Assessment	SE	Statutory Exemption
CE/CE	Categorical Exemption/Categorical Exclusion		

Note: In addition to the projects described in this table, a number of other minor projects have been or will be implemented by Caltrans in the study area. These other projects are relatively minor and generally are proposed within or immediately adjacent to existing state right-of-way. In addition, these projects are predominately in developed areas, do not substantially change the capacity of the transportation system and are not anticipated to result in adverse environmental impacts in the study area. Therefore, the following projects are not listed in detail in this table: improvements to the Avenida Mendocino on ramp to northbound I-5, realignment of Stonehill at the on ramp to northbound I-5; construction of a separation barrier between southbound I-5 and Camino Capistrano; improvements to the southbound I-5 off ramp at Camino Capistrano; improvements to the I-5/SR 74 interchange; improvements to the southbound I-5 off ramp at Oso Parkway; improvements to the southbound I-5 off ramp at Avenida Pico; improvements to the I-5 northbound off ramp and southbound on ramp at Avenida Pico; widening of the southbound I-5 off ramp and bridge overpass at Camino de Estrella; retrofit of truck lanes on I-5 in San Juan Capistrano; scour mitigation at I-5 at the San Juan Creek bridge; reconstruction of the Avery Road undercrossing at I-5; retrofit truck lanes on I-5 in Irvine; widen the I-5 northbound on ramp and southbound off ramp at Oso Parkway and add auxiliary lanes from La Paz Parkway to Oso Parkway; reconstruct the La Paz Road undercrossing at I-5; widen the northbound I-5 on ramp at Avenida Mendocino; construct outer barrier/separation barrier and retaining wall in San Juan Capistrano; construct soundwalls at Camino de Estrella; construct northbound auxiliary lane on I-5 from Crown Valley Parkway to Oso Parkway; restripe one HOV lane to mixed use on I-5 in Mission Viejo, Lake Forest and Laguna Hills; widen the northbound on ramp on I-5 at Avenida Palizada; widen the Camino de Estrella northbound on ramp on I-5 and add ramp metering; install traffic signals and improve curb and gutter on the Junipero Serra northbound and southbound ramps on I-5; widen the La Paz Road off ramp on southbound I-5; convert the eastbound El Toro Road and Tustin Road and northbound Jeffery Road on ramps on I-5 to ramp metering; relocate the HOV lanes and realign the mixed flow lanes on I-5 from Alicia Parkway to El Toro Road; and add an auxiliary lane on southbound I-5 from Oso Parkway to Crown Valley Parkway.

APPENDIX B
REGIONWIDE VMT/VHT SUMMARIES

This appendix summarizes long-range (year 2025) AM, PM and daily regionwide vehicle miles of travel (VMT) and vehicle hours of travel (VHT) for the SOCTIIP No Action Alternative and the various SOCTIIP Build Alternative scenarios that were studied in the SOCTIIP traffic and circulation analysis. The South (Orange) County Sub-Area Model (SCSAM) was used to produce regionwide VMT and VHT estimates. Because of the focused structure of the SCSAM, the regionwide VMT and VHT data produced by the model can only be used on a comparative basis (i.e., differences) since the absolute numbers are derived from a regional road network that is skeletal in nature outside of Orange County. In this case, the VMT and VHT differences between the No Action Alternative and each of the Build Alternatives are compared in order to evaluate the relative effectiveness of the Build Alternatives.

The SCSAM traffic model provides systemwide traffic volumes and estimated travel speeds on individual facilities for four time periods: AM peak (6 AM to 9 AM), midday (9 AM to 3 PM), PM peak (3 PM to 7 PM) and nighttime (7 PM to 6 AM). For the SOCTIIP evaluation, year 2025 VMT/VHT statistics are summarized for AM peak period conditions, PM peak period conditions and daily conditions (the latter being derived by summing the VMT/VHT results for the four time periods mentioned above), and the VMT/VHT statistics are separated according to freeways/tollways (including I-5 in the study area), arterial roads, and I-5 only in the study area. The VMT/VHT summary tables that are included in this appendix are listed below.

LIST OF TABLES

Table	Page
B-1 2025 Regionwide VMT/VHT Summary – FEC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	B-4
B-2 2025 Regionwide VMT/VHT Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-5
B-3 2025 Regionwide VMT/VHT Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	B-6
B-4 2025 Regionwide VMT/VHT Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	B-7
B-5 2025 Regionwide VMT/VHT Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-8
B-6 2025 Regionwide VMT/VHT Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	B-9
B-7 2025 Regionwide VMT/VHT Summary – FEC-CV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	B-10
B-8 2025 Regionwide VMT/VHT Summary – FEC-CV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-11

LIST OF TABLES (cont)

<u>Table</u>	<u>Page</u>
B-9 2025 Regionwide VMT/VHT Summary – FEC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	B-12
B-10 2025 Regionwide VMT/VHT Summary – FEC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-13
B-11 2025 Regionwide VMT/VHT Summary – FEC-APV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	B-14
B-12 2025 Regionwide VMT/VHT Summary – FEC-APV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-15
B-13 2025 Regionwide VMT/VHT Summary – CC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	B-16
B-14 2025 Regionwide VMT/VHT Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-17
B-15 2025 Regionwide VMT/VHT Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	B-18
B-16 2025 Regionwide VMT/VHT Summary – CC-ALPV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	B-19
B-17 2025 Regionwide VMT/VHT Summary – CC-ALPV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-20
B-18 2025 Regionwide VMT/VHT Summary – CC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	B-21
B-19 2025 Regionwide VMT/VHT Summary – CC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-22
B-20 2025 Regionwide VMT/VHT Summary – A7C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	B-23
B-21 2025 Regionwide VMT/VHT Summary – A7C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-24
B-22 2025 Regionwide VMT/VHT Summary – A7C-FECV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	B-25
B-23 2025 Regionwide VMT/VHT Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-26
B-24 2025 Regionwide VMT/VHT Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	B-27
B-25 2025 Regionwide VMT/VHT Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	B-28
B-26 2025 Regionwide VMT/VHT Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	B-29
B-27 2025 Regionwide VMT/VHT Summary – AIO Alternative (Buildout Circulation System with Proposed RMV Plan).....	B-30
B-28 2025 Regionwide VMT/VHT Summary – AIO Alternative (Buildout Circulation System with OCP-2000 for RMV).....	B-31

LIST OF TABLES (cont)

<u>Table</u>	<u>Page</u>
B-29 2025 Regionwide VMT/VHT Summary – AIP Alternative (Buildout Circulation System with Proposed RMV Plan)	B-32
B-30 2025 Regionwide VMT/VHT Summary – AIP Alternative (Buildout Circulation System with OCP-2000 for RMV)	B-33
B-31 2025 Regionwide VMT/VHT Summary – I-5 Alternative (Committed Circulation System with Proposed RMV Plan)	B-34
B-32 2025 Regionwide VMT/VHT Summary – I-5 Alternative (Buildout Circulation System with Proposed RMV Plan)	B-35
B-33 2025 Regionwide VMT/VHT Summary – I-5 Alternative (Buildout Circulation System with OCP-2000 for RMV)	B-36

Table B-1			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,612,786	100,567
Arterials	31,437,639	31,339,114	-98,525
Total	89,949,858	89,951,900	2,042
I-5 (study area only)	1,219,104	1,121,426	-97,679
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,611,090	184,528
Arterials	49,339,687	49,178,084	-161,603
Total	141,766,249	141,789,175	22,925
I-5 (study area only)	1,791,834	1,583,180	-208,654
Daily			
Freeways/Tollways	276,389,166	276,784,690	395,523
Arterials	145,404,941	145,014,076	-390,865
Total	421,794,107	421,798,766	4,659
I-5 (study area only)	6,792,279	6,357,935	-434,344
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,472,405	-3,831
Arterials	1,520,991	1,516,750	-4,241
Total	2,997,227	2,989,155	-8,072
I-5 (study area only)	31,936	25,292	-6,644
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,477,143	-10,766
Arterials	2,424,366	2,415,993	-8,373
Total	4,912,275	4,893,136	-19,139
I-5 (study area only)	52,304	36,642	-15,663
Daily			
Freeways/Tollways	5,923,524	5,908,344	-15,180
Arterials	6,881,657	6,866,053	-15,604
Total	12,805,181	12,774,396	-30,784
I-5 (study area only)	147,395	121,240	-26,155

Table B-2			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,586,033	100,278
Arterials	31,440,546	31,347,655	-92,891
Total	89,926,301	89,933,688	7,387
I-5 (study area only)	1,197,098	1,124,433	-72,666
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,570,924	177,930
Arterials	49,344,984	49,190,224	-154,760
Total	141,737,977	141,761,147	23,170
I-5 (study area only)	1,762,793	1,597,182	-165,612
Daily			
Freeways/Tollways	276,292,170	276,693,550	401,379
Arterials	145,420,370	145,033,972	-386,398
Total	421,712,541	421,727,522	14,981
I-5 (study area only)	6,708,270	6,374,835	-333,434
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,471,250	-1,799
Arterials	1,519,636	1,516,323	-3,313
Total	2,992,685	2,987,573	-5,111
I-5 (study area only)	28,876	24,738	-4,138
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,475,705	-5,955
Arterials	2,421,952	2,415,343	-6,609
Total	4,903,612	4,891,048	-12,564
I-5 (study area only)	46,362	36,021	-10,341
Daily			
Freeways/Tollways	5,911,780	5,904,517	-7,263
Arterials	6,877,773	6,864,811	-12,962
Total	12,789,553	12,769,328	-20,225
I-5 (study area only)	136,174	119,221	-16,953

Table B-3			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,555,240	58,631,876	76,637
Arterials	31,479,634	31,390,392	-89,242
Total	90,034,873	90,022,268	-12,605
I-5 (study area only)	1,210,823	1,125,168	-85,655
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,507,659	92,650,466	142,807
Arterials	49,426,677	49,284,943	-141,734
Total	141,934,336	141,935,409	1,073
I-5 (study area only)	1,791,959	1,599,548	-192,411
Daily			
Freeways/Tollways	276,581,758	276,869,816	288,059
Arterials	145,672,130	145,332,171	-339,959
Total	422,253,887	422,201,987	-51,900
I-5 (study area only)	6,806,669	6,396,758	-409,911
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,474,951	1,471,904	-3,046
Arterials	1,527,481	1,521,084	-6,397
Total	3,002,432	2,992,988	-9,443
I-5 (study area only)	30,071	25,071	-5,000
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,486,173	2,476,761	-9,412
Arterials	2,436,018	2,425,074	-10,944
Total	4,922,191	4,901,835	-20,356
I-5 (study area only)	49,202	36,484	-12,718
Daily			
Freeways/Tollways	5,919,953	5,907,091	-12,861
Arterials	6,907,857	6,886,759	-21,098
Total	12,827,810	12,793,850	-33,959
I-5 (study area only)	141,711	120,775	-20,936

Table B-4			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC-TV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,619,105	106,886
Arterials	31,437,639	31,332,212	-105,427
Total	89,949,858	89,951,317	1,459
I-5 (study area only)	1,219,104	1,145,095	-74,009
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,624,996	198,434
Arterials	49,339,687	49,166,604	-173,084
Total	141,766,249	141,791,600	25,351
I-5 (study area only)	1,791,834	1,638,736	-153,098
Daily			
Freeways/Tollways	276,389,166	276,816,211	427,045
Arterials	145,404,941	144,983,660	-421,281
Total	421,794,107	421,799,870	5,763
I-5 (study area only)	6,792,279	6,463,396	-328,883
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC-TV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,473,006	-3,230
Arterials	1,520,991	1,516,636	-4,355
Total	2,997,227	2,989,642	-7,585
I-5 (study area only)	31,936	26,291	-5,644
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,479,469	-8,440
Arterials	2,424,366	2,415,640	-8,725
Total	4,912,275	4,895,110	-17,165
I-5 (study area only)	52,304	39,512	-12,793
Daily			
Freeways/Tollways	5,923,524	5,911,710	-11,814
Arterials	6,881,657	6,865,277	-16,380
Total	12,805,181	12,776,986	-28,195
I-5 (study area only)	147,395	125,702	-21,693

Table B-5			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC-TV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,590,245	104,490
Arterials	31,440,546	31,342,507	-98,039
Total	89,926,301	89,932,752	6,451
I-5 (study area only)	1,197,098	1,149,232	-47,866
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,588,317	195,324
Arterials	49,344,984	49,175,635	-169,349
Total	141,737,977	141,763,952	25,974
I-5 (study area only)	1,762,793	1,652,365	-110,428
Daily			
Freeways/Tollways	276,292,170	276,733,172	441,001
Arterials	145,420,370	144,998,714	-421,656
Total	421,712,541	421,731,886	19,345
I-5 (study area only)	6,708,270	6,483,543	-224,727
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC-TV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,471,653	-1,395
Arterials	1,519,636	1,516,747	-2,889
Total	2,992,685	2,988,401	-4,284
I-5 (study area only)	28,876	25,818	-3,058
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,478,035	-3,624
Arterials	2,421,952	2,414,883	-7,070
Total	4,903,612	4,892,918	-10,693
I-5 (study area only)	46,362	38,814	-7,548
Daily			
Freeways/Tollways	5,911,780	5,907,840	-3,940
Arterials	6,877,773	6,864,438	-13,336
Total	12,789,553	12,772,277	-17,276
I-5 (study area only)	136,174	123,776	-12,397

Table B-6			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC-TV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,555,240	58,639,510	84,271
Arterials	31,479,634	31,380,739	-98,895
Total	90,034,873	90,020,249	-14,624
I-5 (study area only)	1,210,823	1,149,856	-60,967
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,507,659	92,664,852	157,193
Arterials	49,426,677	49,269,382	-157,295
Total	141,934,336	141,934,234	-102
I-5 (study area only)	1,791,959	1,656,484	-135,475
Daily			
Freeways/Tollways	276,581,758	276,913,636	331,879
Arterials	145,672,130	145,287,235	-384,895
Total	422,253,887	422,200,871	-53,016
I-5 (study area only)	6,806,669	6,509,674	-296,995
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC-TV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,474,951	1,472,668	-2,283
Arterials	1,527,481	1,520,955	-6,526
Total	3,002,432	2,993,623	-8,809
I-5 (study area only)	30,071	26,145	-3,926
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,486,173	2,479,321	-6,852
Arterials	2,436,018	2,424,659	-11,359
Total	4,922,191	4,903,980	-18,211
I-5 (study area only)	49,202	39,373	-9,829
Daily			
Freeways/Tollways	5,919,953	5,911,094	-8,859
Arterials	6,907,857	6,885,766	-22,091
Total	12,827,810	12,796,860	-30,950
I-5 (study area only)	141,711	125,497	-16,214

Table B-7			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC-CV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,588,568	76,349
Arterials	31,437,639	31,362,519	-75,120
Total	89,949,858	89,951,087	1,229
I-5 (study area only)	1,219,104	1,146,266	-72,838
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,555,627	129,065
Arterials	49,339,687	49,231,535	-108,152
Total	141,766,249	141,787,162	20,913
I-5 (study area only)	1,791,834	1,638,833	-153,001
Daily			
Freeways/Tollways	276,389,166	276,682,506	293,340
Arterials	145,404,941	145,117,417	-287,524
Total	421,794,107	421,799,923	5,815
I-5 (study area only)	6,792,279	6,485,833	-306,446
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC-CV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,472,877	-3,360
Arterials	1,520,991	1,517,450	-3,540
Total	2,997,227	2,990,327	-6,900
I-5 (study area only)	31,936	26,528	-5,407
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,478,972	-8,938
Arterials	2,424,366	2,417,878	-6,488
Total	4,912,275	4,896,850	-15,425
I-5 (study area only)	52,304	39,733	-12,572
Daily			
Freeways/Tollways	5,923,524	5,910,995	-12,529
Arterials	6,881,657	6,869,291	-12,366
Total	12,805,181	12,780,286	-24,895
I-5 (study area only)	147,395	126,822	-20,573

Table B-8			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC-CV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,559,862	74,107
Arterials	31,440,546	31,371,195	-69,351
Total	89,926,301	89,931,057	4,756
I-5 (study area only)	1,197,098	1,148,467	-48,632
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,519,611	126,618
Arterials	49,344,984	49,235,765	-109,220
Total	141,737,977	141,755,376	17,398
I-5 (study area only)	1,762,793	1,656,287	-106,506
Daily			
Freeways/Tollways	276,292,170	276,593,510	301,339
Arterials	145,420,370	145,133,377	-286,993
Total	421,712,541	421,726,887	14,346
I-5 (study area only)	6,708,270	6,500,830	-207,440
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC-CV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,471,270	-1,778
Arterials	1,519,636	1,517,444	-2,192
Total	2,992,685	2,988,715	-3,970
I-5 (study area only)	28,876	25,772	-3,104
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,476,974	-4,685
Arterials	2,421,952	2,416,956	-4,996
Total	4,903,612	4,893,930	-9,681
I-5 (study area only)	46,362	38,835	-7,528
Daily			
Freeways/Tollways	5,911,780	5,906,049	-5,731
Arterials	6,877,773	6,868,308	-9,465
Total	12,789,553	12,774,357	-15,196
I-5 (study area only)	136,174	124,143	-12,031

Table B-9			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC-OHV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,565,019	52,800
Arterials	31,437,639	31,387,800	-49,838
Total	89,949,858	89,952,819	2,961
I-5 (study area only)	1,219,104	1,214,743	-4,361
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,505,775	79,213
Arterials	49,339,687	49,265,760	-73,928
Total	141,766,249	141,771,535	5,285
I-5 (study area only)	1,791,834	1,785,181	-6,653
Daily			
Freeways/Tollways	276,389,166	276,607,130	217,964
Arterials	145,404,941	145,196,423	-208,518
Total	421,794,107	421,803,554	9,446
I-5 (study area only)	6,792,279	6,777,125	-15,154
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC-OHV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,476,740	504
Arterials	1,520,991	1,519,465	-1,525
Total	2,997,227	2,996,205	-1,022
I-5 (study area only)	31,936	31,520	-416
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,488,639	729
Arterials	2,424,366	2,421,830	-2,536
Total	4,912,275	4,910,469	-1,807
I-5 (study area only)	52,304	51,651	-653
Daily			
Freeways/Tollways	5,923,524	5,925,890	2,365
Arterials	6,881,657	6,875,959	-5,698
Total	12,805,181	12,801,849	-3,332
I-5 (study area only)	147,395	146,134	-1,261

Table B-10			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC-OHV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,538,680	52,925
Arterials	31,440,546	31,391,262	-49,285
Total	89,926,301	89,929,942	3,640
I-5 (study area only)	1,197,098	1,193,635	-3,463
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,467,548	74,555
Arterials	49,344,984	49,272,569	-72,415
Total	141,737,977	141,740,117	2,140
I-5 (study area only)	1,762,793	1,756,612	-6,181
Daily			
Freeways/Tollways	276,292,170	276,503,785	211,615
Arterials	145,420,370	145,216,255	-204,115
Total	421,712,541	421,720,040	7,499
I-5 (study area only)	6,708,270	6,695,324	-12,946
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC-OHV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,473,604	556
Arterials	1,519,636	1,518,205	-1,431
Total	2,992,685	2,991,809	-875
I-5 (study area only)	28,876	28,525	-351
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,482,654	995
Arterials	2,421,952	2,419,540	-2,413
Total	4,903,612	4,902,194	-1,418
I-5 (study area only)	46,362	45,844	-518
Daily			
Freeways/Tollways	5,911,780	5,914,469	2,690
Arterials	6,877,773	6,872,335	-5,438
Total	12,789,553	12,786,804	-2,749
I-5 (study area only)	136,174	135,157	-1,016

Table B-11			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC-APV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,602,119	89,900
Arterials	31,437,639	31,353,755	-83,884
Total	89,949,858	89,955,874	6,016
I-5 (study area only)	1,219,104	1,172,505	-46,599
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,573,946	147,384
Arterials	49,339,687	49,216,733	-122,954
Total	141,766,249	141,790,679	24,430
I-5 (study area only)	1,791,834	1,707,492	-84,343
Daily			
Freeways/Tollways	276,389,166	276,734,929	345,763
Arterials	145,404,941	145,077,751	-327,191
Total	421,794,107	421,812,680	18,573
I-5 (study area only)	6,792,279	6,602,957	-189,322
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC-APV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,474,369	-1,868
Arterials	1,520,991	1,517,595	-3,396
Total	2,997,227	2,991,963	-5,264
I-5 (study area only)	31,936	28,020	-3,916
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,482,900	-5,010
Arterials	2,424,366	2,419,116	-5,250
Total	4,912,275	4,902,016	-10,260
I-5 (study area only)	52,304	44,357	-7,948
Daily			
Freeways/Tollways	5,923,524	5,917,156	-6,368
Arterials	6,881,657	6,870,372	-11,285
Total	12,805,181	12,787,529	-17,652
I-5 (study area only)	147,395	133,700	-13,695

Table B-12			
2025 REGIONWIDE VMT/VHT SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	FEC-APV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,574,549	88,794
Arterials	31,440,546	31,360,257	-80,289
Total	89,926,301	89,934,806	8,505
I-5 (study area only)	1,197,098	1,171,313	-25,786
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,537,394	144,401
Arterials	49,344,984	49,223,266	-121,718
Total	141,737,977	141,760,660	22,682
I-5 (study area only)	1,762,793	1,714,846	-47,947
Daily			
Freeways/Tollways	276,292,170	276,648,382	356,211
Arterials	145,420,370	145,092,770	-327,600
Total	421,712,541	421,741,152	28,611
I-5 (study area only)	6,708,270	6,601,261	-107,009
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	FEC-APV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,472,793	-256
Arterials	1,519,636	1,517,065	-2,571
Total	2,992,685	2,989,858	-2,827
I-5 (study area only)	28,876	26,996	-1,880
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,480,785	-874
Arterials	2,421,952	2,417,757	-4,196
Total	4,903,612	4,898,541	-5,070
I-5 (study area only)	46,362	42,675	-3,687
Daily			
Freeways/Tollways	5,911,780	5,912,042	263
Arterials	6,877,773	6,868,421	-9,352
Total	12,789,553	12,780,463	-9,090
I-5 (study area only)	136,174	129,795	-6,379

Table B-13			
2025 REGIONWIDE VMT/VHT SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	CC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,601,614	89,395
Arterials	31,437,639	31,345,452	-92,187
Total	89,949,858	89,947,065	-2,792
I-5 (study area only)	1,219,104	1,131,634	-87,470
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,580,579	154,017
Arterials	49,339,687	49,189,691	-149,996
Total	141,766,249	141,770,270	4,020
I-5 (study area only)	1,791,834	1,620,707	-171,128
Daily			
Freeways/Tollways	276,389,166	276,734,663	345,497
Arterials	145,404,941	145,040,196	-364,746
Total	421,794,107	421,774,859	-19,248
I-5 (study area only)	6,792,279	6,410,804	-381,475
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	CC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,472,398	-3,838
Arterials	1,520,991	1,516,926	-4,064
Total	2,997,227	2,989,325	-7,903
I-5 (study area only)	31,936	25,616	-6,320
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,478,060	-9,849
Arterials	2,424,366	2,416,218	-8,147
Total	4,912,275	4,894,278	-17,997
I-5 (study area only)	52,304	38,440	-13,864
Daily			
Freeways/Tollways	5,923,524	5,909,166	-14,358
Arterials	6,881,657	6,866,679	-14,977
Total	12,805,181	12,775,846	-29,335
I-5 (study area only)	147,395	123,421	-23,974

Table B-14			
2025 REGIONWIDE VMT/VHT SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	CC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,582,190	96,435
Arterials	31,440,546	31,350,870	-89,677
Total	89,926,301	89,933,060	6,758
I-5 (study area only)	1,197,098	1,134,875	-62,223
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,557,610	164,617
Arterials	49,344,984	49,194,442	-150,542
Total	141,737,977	141,752,052	14,075
I-5 (study area only)	1,762,793	1,630,092	-132,702
Daily			
Freeways/Tollways	276,292,170	276,678,789	386,618
Arterials	145,420,370	145,051,423	-368,947
Total	421,712,541	421,730,212	17,671
I-5 (study area only)	6,708,270	6,422,464	-285,806
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	CC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,471,560	-1,489
Arterials	1,519,636	1,516,502	-3,134
Total	2,992,685	2,988,062	-4,623
I-5 (study area only)	28,876	25,208	-3,668
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,476,975	-4,684
Arterials	2,421,952	2,415,185	-6,767
Total	4,903,612	4,892,160	-11,452
I-5 (study area only)	46,362	37,786	-8,576
Daily			
Freeways/Tollways	5,911,780	5,906,332	-5,448
Arterials	6,877,773	6,865,211	-12,562
Total	12,789,553	12,771,543	-18,010
I-5 (study area only)	136,174	121,649	-14,525

Table B-15			
2025 REGIONWIDE VMT/VHT SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	CC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,555,240	58,646,708	91,468
Arterials	31,479,634	31,385,151	-94,483
Total	90,034,873	90,031,859	-3,014
I-5 (study area only)	1,210,823	1,138,808	-72,015
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,507,659	92,673,465	165,806
Arterials	49,426,677	49,272,264	-154,413
Total	141,934,336	141,945,729	11,393
I-5 (study area only)	1,791,959	1,636,677	-155,282
Daily			
Freeways/Tollways	276,581,758	276,940,807	359,049
Arterials	145,672,130	145,301,159	-370,971
Total	422,253,887	422,241,966	-11,921
I-5 (study area only)	6,806,669	6,459,755	-346,914
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	CC Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,474,951	1,472,772	-2,178
Arterials	1,527,481	1,522,549	-4,932
Total	3,002,432	2,995,322	-7,110
I-5 (study area only)	30,071	25,649	-4,422
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,486,173	2,479,599	-6,574
Arterials	2,436,018	2,426,932	-9,086
Total	4,922,191	4,906,531	-15,660
I-5 (study area only)	49,202	38,464	-10,738
Daily			
Freeways/Tollways	5,919,953	5,911,458	-8,494
Arterials	6,907,857	6,890,541	-17,316
Total	12,827,810	12,802,000	-25,810
I-5 (study area only)	141,711	123,730	-17,981

Table B-16			
2025 REGIONWIDE VMT/VHT SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	CC-ALPV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,575,274	63,055
Arterials	31,437,639	31,371,595	-66,044
Total	89,949,858	89,946,869	-2,989
I-5 (study area only)	1,219,104	1,167,055	-52,049
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,524,294	97,732
Arterials	49,339,687	49,238,425	-101,262
Total	141,766,249	141,762,719	-3,530
I-5 (study area only)	1,791,834	1,697,546	-94,288
Daily			
Freeways/Tollways	276,389,166	276,624,585	235,419
Arterials	145,404,941	145,153,484	-251,457
Total	421,794,107	421,778,070	-16,038
I-5 (study area only)	6,792,279	6,575,946	-216,333
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	CC-ALPV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,473,647	-2,590
Arterials	1,520,991	1,518,334	-2,657
Total	2,997,227	2,991,981	-5,246
I-5 (study area only)	31,936	27,603	-4,332
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,481,888	-6,022
Arterials	2,424,366	2,420,106	-4,260
Total	4,912,275	4,901,994	-10,281
I-5 (study area only)	52,304	43,599	-8,706
Daily			
Freeways/Tollways	5,923,524	5,914,702	-8,822
Arterials	6,881,657	6,873,115	-8,542
Total	12,805,181	12,787,818	-17,363
I-5 (study area only)	147,395	132,065	-15,330

Table B-17			
2025 REGIONWIDE VMT/VHT SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	CC-ALPV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,552,762	67,007
Arterials	31,440,546	31,380,910	-59,636
Total	89,926,301	89,933,672	7,371
I-5 (study area only)	1,197,098	1,166,325	-30,774
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,499,519	106,526
Arterials	49,344,984	49,250,323	-94,661
Total	141,737,977	141,749,842	11,865
I-5 (study area only)	1,762,793	1,705,589	-57,205
Daily			
Freeways/Tollways	276,292,170	276,565,865	273,695
Arterials	145,420,370	145,173,293	-247,077
Total	421,712,541	421,739,159	26,618
I-5 (study area only)	6,708,270	6,584,354	-123,916
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	CC-ALPV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,472,170	-878
Arterials	1,519,636	1,518,040	-1,596
Total	2,992,685	2,990,210	-2,474
I-5 (study area only)	28,876	26,727	-2,150
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,479,857	-1,802
Arterials	2,421,952	2,418,842	-3,111
Total	4,903,612	4,898,699	-4,913
I-5 (study area only)	46,362	42,095	-4,267
Daily			
Freeways/Tollways	5,911,780	5,910,229	-1,551
Arterials	6,877,773	6,871,434	-6,340
Total	12,789,553	12,781,663	-7,890
I-5 (study area only)	136,174	128,940	-7,234

Table B-18			
2025 REGIONWIDE VMT/VHT SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	CC-OHV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,548,312	36,093
Arterials	31,437,639	31,410,668	-26,971
Total	89,949,858	89,958,980	9,122
I-5 (study area only)	1,219,104	1,215,324	-3,780
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,471,967	45,404
Arterials	49,339,687	49,302,041	-37,646
Total	141,766,249	141,774,007	7,758
I-5 (study area only)	1,791,834	1,786,989	-4,846
Daily			
Freeways/Tollways	276,389,166	276,540,307	151,141
Arterials	145,404,941	145,287,521	-117,421
Total	421,794,107	421,827,828	33,720
I-5 (study area only)	6,792,279	6,785,653	-6,626
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	CC-OHV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,476,579	343
Arterials	1,520,991	1,520,512	-479
Total	2,997,227	2,997,091	-137
I-5 (study area only)	31,936	31,543	-392
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,488,206	296
Arterials	2,424,366	2,424,042	-323
Total	4,912,275	4,912,248	-27
I-5 (study area only)	52,304	51,821	-483
Daily			
Freeways/Tollways	5,923,524	5,925,097	1,573
Arterials	6,881,657	6,880,169	-1,488
Total	12,805,181	12,805,266	85
I-5 (study area only)	147,395	146,509	-886

Table B-19			
2025 REGIONWIDE VMT/VHT SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	CC-OHV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,527,812	42,057
Arterials	31,440,546	31,406,657	-33,889
Total	89,926,301	89,934,470	8,168
I-5 (study area only)	1,197,098	1,190,396	-6,703
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,454,332	61,339
Arterials	49,344,984	49,294,016	-50,968
Total	141,737,977	141,748,348	10,371
I-5 (study area only)	1,762,793	1,746,898	-15,895
Daily			
Freeways/Tollways	276,292,170	276,467,442	175,271
Arterials	145,420,370	145,279,873	-140,497
Total	421,712,541	421,747,315	34,774
I-5 (study area only)	6,708,270	6,683,075	-25,195
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	CC-OHV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,473,286	238
Arterials	1,519,636	1,518,911	-725
Total	2,992,685	2,992,198	-487
I-5 (study area only)	28,876	28,326	-550
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,481,965	306
Arterials	2,421,952	2,420,915	-1,037
Total	4,903,612	4,902,880	-731
I-5 (study area only)	46,362	45,176	-1,186
Daily			
Freeways/Tollways	5,911,780	5,913,301	1,522
Arterials	6,877,773	6,875,244	-2,529
Total	12,789,553	12,788,545	-1,008
I-5 (study area only)	136,174	134,339	-1,835

Table B-20			
2025 REGIONWIDE VMT/VHT SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	A7C Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,615,583	103,364
Arterials	31,437,639	31,334,319	-103,320
Total	89,949,858	89,949,902	44
I-5 (study area only)	1,219,104	1,134,542	-84,562
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,595,812	169,250
Arterials	49,339,687	49,178,559	-161,128
Total	141,766,249	141,774,371	8,121
I-5 (study area only)	1,791,834	1,624,440	-167,395
Daily			
Freeways/Tollways	276,389,166	276,781,453	392,287
Arterials	145,404,941	144,998,183	-406,758
Total	421,794,107	421,779,636	-14,471
I-5 (study area only)	6,792,279	6,422,944	-369,335
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	A7C Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,473,049	-3,187
Arterials	1,520,991	1,516,437	-4,554
Total	2,997,227	2,989,486	-7,741
I-5 (study area only)	31,936	25,765	-6,171
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,478,401	-9,508
Arterials	2,424,366	2,416,193	-8,173
Total	4,912,275	4,894,594	-17,681
I-5 (study area only)	52,304	38,686	-13,619
Daily			
Freeways/Tollways	5,923,524	5,910,443	-13,081
Arterials	6,881,657	6,865,770	-15,886
Total	12,805,181	12,776,214	-28,967
I-5 (study area only)	147,395	123,949	-23,446

Table B-21			
2025 REGIONWIDE VMT/VHT SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	A7C Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,590,821	105,066
Arterials	31,440,546	31,345,053	-95,493
Total	89,926,301	89,935,874	9,573
I-5 (study area only)	1,197,098	1,137,864	-59,235
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,569,603	176,609
Arterials	49,344,984	49,188,436	-156,548
Total	141,737,977	141,758,038	20,061
I-5 (study area only)	1,762,793	1,635,179	-127,615
Daily			
Freeways/Tollways	276,292,170	276,715,586	423,416
Arterials	145,420,370	145,020,367	-400,003
Total	421,712,541	421,735,953	23,413
I-5 (study area only)	6,708,270	6,435,025	-273,245
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	A7C Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,471,760	-1,289
Arterials	1,519,636	1,516,350	-3,286
Total	2,992,685	2,988,110	-4,575
I-5 (study area only)	28,876	25,316	-3,560
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,477,293	-4,366
Arterials	2,421,952	2,415,422	-6,530
Total	4,903,612	4,892,715	-10,897
I-5 (study area only)	46,362	38,027	-8,335
Daily			
Freeways/Tollways	5,911,780	5,907,090	-4,690
Arterials	6,877,773	6,864,910	-12,864
Total	12,789,553	12,771,999	-17,554
I-5 (study area only)	136,174	122,079	-14,094

Table B-22			
2025 REGIONWIDE VMT/VHT SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	A7C-FECV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,610,134	97,915
Arterials	31,437,639	31,343,064	-94,575
Total	89,949,858	89,953,198	3,340
I-5 (study area only)	1,219,104	1,110,849	-108,255
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,594,581	168,019
Arterials	49,339,687	49,186,169	-153,518
Total	141,766,249	141,780,750	14,501
I-5 (study area only)	1,791,834	1,569,565	-222,269
Daily			
Freeways/Tollways	276,389,166	276,767,218	378,052
Arterials	145,404,941	145,028,475	-376,467
Total	421,794,107	421,795,693	1,585
I-5 (study area only)	6,792,279	6,307,270	-485,010
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	A7C-FECV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,471,947	-4,289
Arterials	1,520,991	1,516,926	-4,065
Total	2,997,227	2,988,873	-8,354
I-5 (study area only)	31,936	24,820	-7,116
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,476,281	-11,628
Arterials	2,424,366	2,416,481	-7,885
Total	4,912,275	4,892,762	-19,513
I-5 (study area only)	52,304	35,856	-16,449
Daily			
Freeways/Tollways	5,923,524	5,906,724	-16,800
Arterials	6,881,657	6,866,877	-14,780
Total	12,805,181	12,773,601	-31,580
I-5 (study area only)	147,395	119,315	-28,080

Table B-23			
2025 REGIONWIDE VMT/VHT SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	A7C-FECV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,583,028	97,273
Arterials	31,440,546	31,353,011	-87,535
Total	89,926,301	89,936,038	9,737
I-5 (study area only)	1,197,098	1,115,731	-81,368
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,556,450	163,456
Arterials	49,344,984	49,198,708	-146,276
Total	141,737,977	141,755,157	17,180
I-5 (study area only)	1,762,793	1,584,024	-178,770
Daily			
Freeways/Tollways	276,292,170	276,676,983	384,812
Arterials	145,420,370	145,057,740	-362,630
Total	421,712,541	421,734,723	22,182
I-5 (study area only)	6,708,270	6,323,116	-385,154
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	A7C-FECV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,471,014	-2,034
Arterials	1,519,636	1,516,516	-3,120
Total	2,992,685	2,987,531	-5,154
I-5 (study area only)	28,876	24,417	-4,459
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,475,194	-6,466
Arterials	2,421,952	2,415,273	-6,679
Total	4,903,612	4,890,467	-13,145
I-5 (study area only)	46,362	35,445	-10,918
Daily			
Freeways/Tollways	5,911,780	5,903,628	-8,152
Arterials	6,877,773	6,865,343	-12,431
Total	12,789,553	12,768,971	-20,582
I-5 (study area only)	136,174	117,717	-18,456

Table B-24			
2025 REGIONWIDE VMT/VHT SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	A7C-FECV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,555,240	58,627,863	72,624
Arterials	31,479,634	31,412,151	-67,483
Total	90,034,873	90,040,014	5,141
I-5 (study area only)	1,210,823	1,124,157	-86,666
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,507,659	92,646,677	139,018
Arterials	49,426,677	49,312,209	-114,468
Total	141,934,336	141,958,886	24,550
I-5 (study area only)	1,791,959	1,594,437	-197,522
Daily			
Freeways/Tollways	276,581,758	276,869,688	287,931
Arterials	145,672,130	145,408,117	-264,013
Total	422,253,887	422,277,805	23,918
I-5 (study area only)	6,806,669	6,388,390	-418,279
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	A7C-FECV Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,474,951	1,472,177	-2,774
Arterials	1,527,481	1,523,679	-3,802
Total	3,002,432	2,995,856	-6,576
I-5 (study area only)	30,071	24,970	-5,101
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,486,173	2,477,358	-8,815
Arterials	2,436,018	2,428,885	-7,133
Total	4,922,191	4,906,243	-15,948
I-5 (study area only)	49,202	36,241	-12,961
Daily			
Freeways/Tollways	5,919,953	5,908,041	-11,912
Arterials	6,907,857	6,894,821	-13,036
Total	12,827,810	12,802,862	-24,948
I-5 (study area only)	141,711	120,394	-21,317

Table B-25			
2025 REGIONWIDE VMT/VHT SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	A7C-FECV-C Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,582,094	69,875
Arterials	31,437,639	31,372,161	-65,478
Total	89,949,858	89,954,255	4,397
I-5 (study area only)	1,219,104	1,142,300	-76,804
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,535,888	109,326
Arterials	49,339,687	49,244,377	-95,310
Total	141,766,249	141,780,265	14,016
I-5 (study area only)	1,791,834	1,633,032	-158,802
Daily			
Freeways/Tollways	276,389,166	276,657,303	268,137
Arterials	145,404,941	145,150,157	-254,784
Total	421,794,107	421,807,460	13,353
I-5 (study area only)	6,792,279	6,464,588	-327,691
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	A7C-FECV-C Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,472,840	-3,396
Arterials	1,520,991	1,517,841	-3,150
Total	2,997,227	2,990,681	-6,546
I-5 (study area only)	31,936	26,295	-5,641
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,478,577	-9,332
Arterials	2,424,366	2,418,133	-6,233
Total	4,912,275	4,896,710	-15,565
I-5 (study area only)	52,304	39,370	-12,934
Daily			
Freeways/Tollways	5,923,524	5,910,413	-13,111
Arterials	6,881,657	6,870,335	-11,322
Total	12,805,181	12,780,748	-24,433
I-5 (study area only)	147,395	125,902	-21,492

Table B-26			
2025 REGIONWIDE VMT/VHT SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	A7C-FECV-C Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,556,567	70,812
Arterials	31,440,546	31,379,967	-60,580
Total	89,926,301	89,936,534	10,232
I-5 (study area only)	1,197,098	1,144,992	-52,107
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,508,805	115,811
Arterials	49,344,984	49,251,233	-93,751
Total	141,737,977	141,760,037	22,060
I-5 (study area only)	1,762,793	1,647,537	-115,257
Daily			
Freeways/Tollways	276,292,170	276,583,433	291,263
Arterials	145,420,370	145,168,640	-251,730
Total	421,712,541	421,752,073	39,532
I-5 (study area only)	6,708,270	6,479,258	-229,012
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	A7C-FECV-C Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,471,557	-1,492
Arterials	1,519,636	1,517,383	-2,253
Total	2,992,685	2,988,940	-3,745
I-5 (study area only)	28,876	25,598	-3,278
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,476,660	-4,999
Arterials	2,421,952	2,417,300	-4,653
Total	4,903,612	4,893,960	-9,652
I-5 (study area only)	46,362	38,404	-7,958
Daily			
Freeways/Tollways	5,911,780	5,906,041	-5,739
Arterials	6,877,773	6,869,038	-8,736
Total	12,789,553	12,775,078	-14,475
I-5 (study area only)	136,174	123,330	-12,844

Table B-27			
2025 REGIONWIDE VMT/VHT SUMMARY – AIO ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	AIO Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,469,166	-16,589
Arterials	31,440,546	31,455,589	15,043
Total	89,926,301	89,924,755	-1,547
I-5 (study area only)	1,197,098	1,177,519	-19,580
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,364,708	-28,286
Arterials	49,344,984	49,369,536	24,552
Total	141,737,977	141,734,244	-3,734
I-5 (study area only)	1,762,793	1,733,968	-28,826
Daily			
Freeways/Tollways	276,292,170	276,218,705	-73,466
Arterials	145,420,370	145,478,471	58,101
Total	421,712,541	421,697,175	-15,365
I-5 (study area only)	6,708,270	6,633,381	-74,889
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	AIO Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,471,742	-1,306
Arterials	1,519,636	1,519,273	-363
Total	2,992,685	2,991,016	-1,669
I-5 (study area only)	28,876	27,569	-1,307
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,479,240	-2,419
Arterials	2,421,952	2,421,364	-588
Total	4,903,612	4,900,604	-3,008
I-5 (study area only)	46,362	44,055	-2,307
Daily			
Freeways/Tollways	5,911,780	5,907,423	-4,356
Arterials	6,877,773	6,876,870	-904
Total	12,789,553	12,784,293	-5,260
I-5 (study area only)	136,174	131,960	-4,213

Table B-28			
2025 REGIONWIDE VMT/VHT SUMMARY – AIO ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	AIO Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,555,240	58,538,405	-16,834
Arterials	31,479,634	31,500,362	20,729
Total	90,034,873	90,038,768	3,894
I-5 (study area only)	1,210,823	1,185,596	-25,227
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,507,659	92,469,441	-38,218
Arterials	49,426,677	49,462,598	35,921
Total	141,934,336	141,932,039	-2,297
I-5 (study area only)	1,791,959	1,748,281	-43,678
Daily			
Freeways/Tollways	276,581,758	276,492,116	-89,641
Arterials	145,672,130	145,753,721	81,592
Total	422,253,887	422,245,838	-8,050
I-5 (study area only)	6,806,669	6,709,767	-96,902
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	AIO Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,474,951	1,472,862	-2,089
Arterials	1,527,481	1,526,642	-839
Total	3,002,432	2,999,504	-2,928
I-5 (study area only)	30,071	28,289	-1,782
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,486,173	2,482,343	-3,830
Arterials	2,436,018	2,434,976	-1,042
Total	4,922,191	4,917,319	-4,872
I-5 (study area only)	49,202	45,412	-3,790
Daily			
Freeways/Tollways	5,919,953	5,913,214	-6,739
Arterials	6,907,857	6,906,132	-1,725
Total	12,827,810	12,819,346	-8,464
I-5 (study area only)	141,711	135,418	-6,293

Table B-29			
2025 REGIONWIDE VMT/VHT SUMMARY – AIP ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	AIP Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,483,942	-1,813
Arterials	31,440,546	31,445,952	5,406
Total	89,926,301	89,929,894	3,593
I-5 (study area only)	1,197,098	1,199,818	2,720
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,380,252	-12,741
Arterials	49,344,984	49,350,687	5,703
Total	141,737,977	141,730,939	-7,038
I-5 (study area only)	1,762,793	1,767,924	5,131
Daily			
Freeways/Tollways	276,292,170	276,255,360	-36,811
Arterials	145,420,370	145,446,095	25,724
Total	421,712,541	421,701,454	-11,087
I-5 (study area only)	6,708,270	6,697,288	-10,982
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	AIP Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,470,849	-2,200
Arterials	1,519,636	1,518,792	-844
Total	2,992,685	2,989,641	-3,044
I-5 (study area only)	28,876	26,788	-2,088
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,478,238	-3,421
Arterials	2,421,952	2,420,046	-1,906
Total	4,903,612	4,898,284	-5,328
I-5 (study area only)	46,362	42,819	-3,543
Daily			
Freeways/Tollways	5,911,780	5,904,879	-6,901
Arterials	6,877,773	6,874,976	-2,797
Total	12,789,553	12,779,855	-9,698
I-5 (study area only)	136,174	129,260	-6,913

Table B-30			
2025 REGIONWIDE VMT/VHT SUMMARY – AIP ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	AIP Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,555,240	58,546,777	-8,463
Arterials	31,479,634	31,488,453	8,820
Total	90,034,873	90,035,230	357
I-5 (study area only)	1,210,823	1,211,782	960
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,507,659	92,494,492	-13,167
Arterials	49,426,677	49,442,263	15,586
Total	141,934,336	141,936,755	2,419
I-5 (study area only)	1,791,959	1,790,120	-1,839
Daily			
Freeways/Tollways	276,581,758	276,535,109	-46,649
Arterials	145,672,130	145,715,273	43,144
Total	422,253,887	422,250,382	-3,505
I-5 (study area only)	6,806,669	6,791,694	-14,975
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	AIP Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,474,951	1,472,290	-2,661
Arterials	1,527,481	1,526,093	-1,388
Total	3,002,432	2,998,383	-4,049
I-5 (study area only)	30,071	27,608	-2,462
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,486,173	2,480,930	-5,243
Arterials	2,436,018	2,434,028	-1,990
Total	4,922,191	4,914,958	-7,233
I-5 (study area only)	49,202	44,189	-5,013
Daily			
Freeways/Tollways	5,919,953	5,910,470	-9,483
Arterials	6,907,857	6,904,468	-3,389
Total	12,827,810	12,814,938	-12,872
I-5 (study area only)	141,711	132,782	-8,928

Table B-31			
2025 REGIONWIDE VMT/VHT SUMMARY – I-5 ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	I-5 Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,512,219	58,573,939	61,720
Arterials	31,437,639	31,381,919	-55,720
Total	89,949,858	89,955,858	6,001
I-5 (study area only)	1,219,104	1,314,510	95,406
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,426,562	92,521,793	95,231
Arterials	49,339,687	49,247,493	-92,194
Total	141,766,249	141,769,286	3,037
I-5 (study area only)	1,791,834	1,954,047	162,213
Daily			
Freeways/Tollways	276,389,166	276,606,263	217,097
Arterials	145,404,941	145,194,111	-210,830
Total	421,794,107	421,800,375	6,267
I-5 (study area only)	6,792,279	7,180,028	387,749
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	I-5 Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,476,236	1,471,963	-4,274
Arterials	1,520,991	1,517,847	-3,144
Total	2,997,227	2,989,810	-7,418
I-5 (study area only)	31,936	27,826	-4,110
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,487,909	2,478,453	-9,457
Arterials	2,424,366	2,418,277	-6,089
Total	4,912,275	4,896,729	-15,546
I-5 (study area only)	52,304	43,408	-8,896
Daily			
Freeways/Tollways	5,923,524	5,906,203	-17,322
Arterials	6,881,657	6,870,641	-11,016
Total	12,805,181	12,776,844	-28,337
I-5 (study area only)	147,395	131,533	-15,862

Table B-32			
2025 REGIONWIDE VMT/VHT SUMMARY – I-5 ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	I-5 Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,485,755	58,544,612	58,857
Arterials	31,440,546	31,387,167	-53,379
Total	89,926,301	89,931,779	5,478
I-5 (study area only)	1,197,098	1,290,732	93,633
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,392,993	92,483,937	90,944
Arterials	49,344,984	49,256,041	-88,943
Total	141,737,977	141,739,978	2,000
I-5 (study area only)	1,762,793	1,921,371	158,578
Daily			
Freeways/Tollways	276,292,170	276,499,229	207,058
Arterials	145,420,370	145,218,441	-201,930
Total	421,712,541	421,717,669	5,129
I-5 (study area only)	6,708,270	7,089,259	380,989
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	I-5 Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,473,049	1,470,532	-2,516
Arterials	1,519,636	1,516,985	-2,651
Total	2,992,685	2,987,518	-5,167
I-5 (study area only)	28,876	26,763	-2,113
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,481,659	2,476,365	-5,295
Arterials	2,421,952	2,416,564	-5,389
Total	4,903,612	4,892,928	-10,683
I-5 (study area only)	46,362	41,445	-4,917
Daily			
Freeways/Tollways	5,911,780	5,901,773	-10,007
Arterials	6,877,773	6,868,088	-9,685
Total	12,789,553	12,769,861	-19,692
I-5 (study area only)	136,174	127,691	-8,482

Table B-33			
2025 REGIONWIDE VMT/VHT SUMMARY – I-5 ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)			
VEHICLE MILES OF TRAVEL (VMT)			
Circulation Component	No Action Alternative	I-5 Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	58,555,240	58,612,623	57,384
Arterials	31,479,634	31,425,594	-54,040
Total	90,034,873	90,038,217	3,344
I-5 (study area only)	1,210,823	1,305,912	95,089
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	92,507,659	92,617,931	110,272
Arterials	49,426,677	49,341,600	-85,077
Total	141,934,336	141,959,531	25,195
I-5 (study area only)	1,791,959	1,955,717	163,758
Daily			
Freeways/Tollways	276,581,758	276,814,295	232,537
Arterials	145,672,130	145,463,487	-208,642
Total	422,253,887	422,277,782	23,895
I-5 (study area only)	6,806,669	7,203,041	396,372
VEHICLE HOURS OF TRAVEL (VHT)			
Circulation Component	No Action Alternative	I-5 Alternative	Difference
AM Peak Period (6 AM to 9 AM)			
Freeways/Tollways	1,474,951	1,472,037	-2,913
Arterials	1,527,481	1,524,710	-2,771
Total	3,002,432	2,996,748	-5,684
I-5 (study area only)	30,071	27,596	-2,475
PM Peak Period (3 PM to 7 PM)			
Freeways/Tollways	2,486,173	2,479,228	-6,945
Arterials	2,436,018	2,430,940	-5,078
Total	4,922,191	4,910,168	-12,023
I-5 (study area only)	49,202	43,177	-6,025
Daily			
Freeways/Tollways	5,919,953	5,907,815	-12,138
Arterials	6,907,857	6,898,033	-9,824
Total	12,827,810	12,805,847	-21,962
I-5 (study area only)	141,711	131,590	-10,120

APPENDIX C
ADT ILLUSTRATIONS

This appendix provides illustrations of existing and long-range (year 2025) average daily traffic (ADT) volumes on the circulation system in SOCTIIP traffic analysis study area. Year 2025 ADT volume diagrams are included for the SOCTIIP No Action Alternative and the SOCTIIP Build Alternative scenarios that were studied in the SOCTIIP traffic and circulation analysis. The ADT illustrations that are included in this appendix are listed below.

LIST OF FIGURES

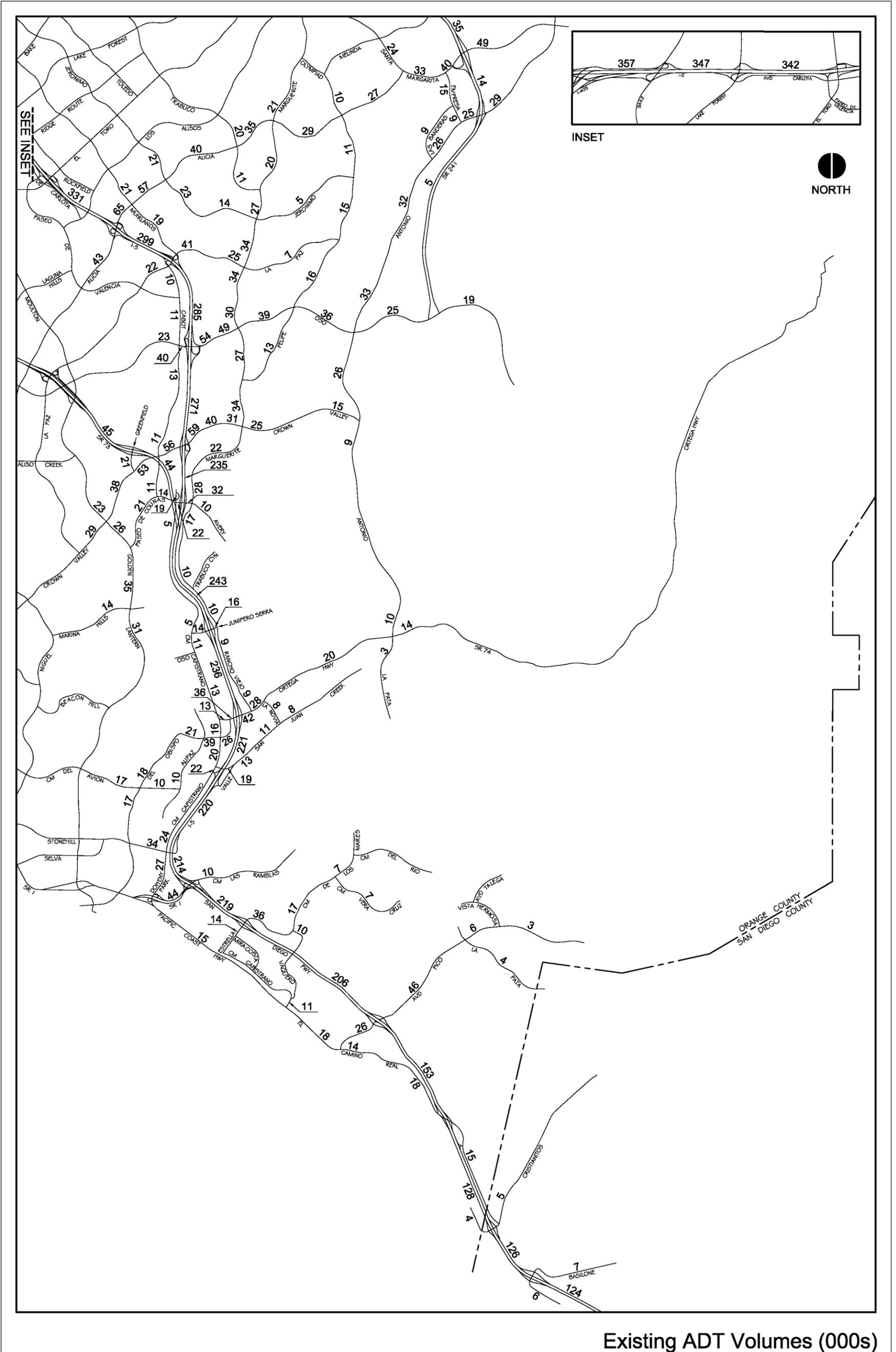
<u>Figure</u>	<u>Page</u>
C-1 Existing ADT Volumes (000s)	C-4
C-2 2025 ADT Volumes (000s) – No Action Alternative (Committed Circulation System with Proposed RMV Plan)	C-5
C-3 2025 ADT Volumes (000s) – No Action Alternative (Committed Circulation System with OCP-2000 for RMV)	C-6
C-4 2025 ADT Volumes (000s) – No Action Alternative (Committed Circulation System with Existing General Plan for RMV)	C-7
C-5 2025 ADT Volumes (000s) – No Action Alternative (Committed Circulation System with No Future Development in RMV)	C-8
C-6 2025 ADT Volumes (000s) – No Action Alternative (Buildout Circulation System with Proposed RMV Plan)	C-9
C-7 2025 ADT Volumes (000s) – No Action Alternative (Buildout Circulation System with OCP-2000 for RMV)	C-10
C-8 2025 ADT Volumes (000s) – FEC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	C-11
C-9 2025 ADT Volumes (000s) – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	C-12
C-10 2025 ADT Volumes (000s) – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)	C-13
C-11 2025 ADT Volumes (000s) – FEC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	C-14
C-12 2025 ADT Volumes (000s) – FEC-TV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	C-15
C-13 2025 ADT Volumes (000s) – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	C-16
C-14 2025 ADT Volumes (000s) – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)	C-17
C-15 2025 ADT Volumes (000s) – FEC-CV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	C-18
C-16 2025 ADT Volumes (000s) – FEC-CV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	C-19

LIST OF FIGURES (cont)

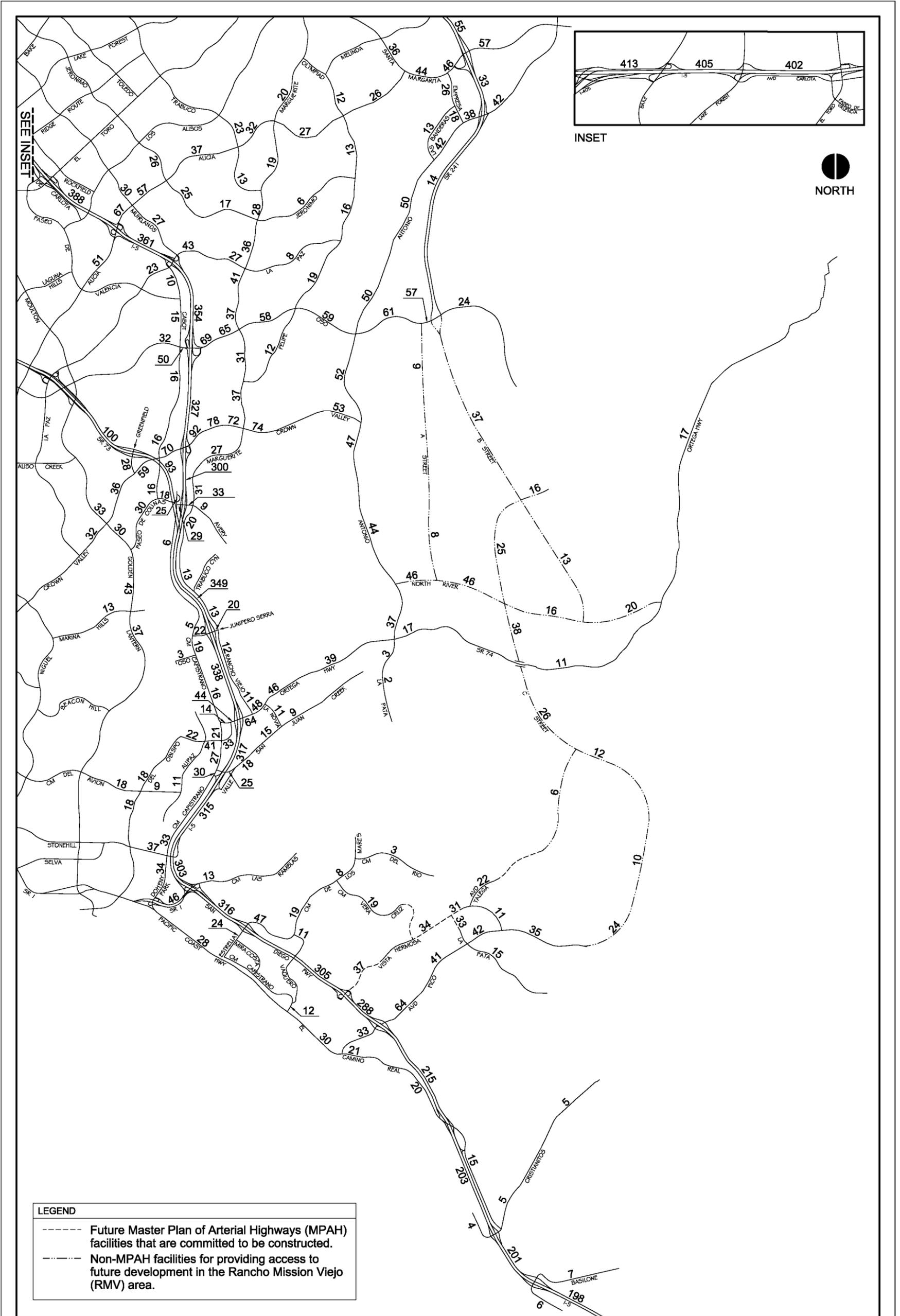
Figure	Page
C-17 2025 ADT Volumes (000s) – FEC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	C-20
C-18 2025 ADT Volumes (000s) – FEC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	C-21
C-19 2025 ADT Volumes (000s) – FEC-APV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	C-22
C-20 2025 ADT Volumes (000s) – FEC-APV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	C-23
C-21 2025 ADT Volumes (000s) – CC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	C-24
C-22 2025 ADT Volumes (000s) – CC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	C-25
C-23 2025 ADT Volumes (000s) – CC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	C-26
C-24 2025 ADT Volumes (000s) – CC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV).....	C-27
C-25 2025 ADT Volumes (000s) – CC-ALPV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	C-28
C-26 2025 ADT Volumes (000s) – CC-ALPV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	C-29
C-27 2025 ADT Volumes (000s) – CC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	C-30
C-28 2025 ADT Volumes (000s) – CC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	C-31
C-29 2025 ADT Volumes (000s) – A7C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	C-32
C-30 2025 ADT Volumes (000s) – A7C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	C-33
C-31 2025 ADT Volumes (000s) – A7C-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV).....	C-34
C-32 2025 ADT Volumes (000s) – A7C-FECV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	C-35
C-33 2025 ADT Volumes (000s) – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	C-36
C-34 2025 ADT Volumes (000s) – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	C-37
C-35 2025 ADT Volumes (000s) – A7C-FECV-C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	C-38
C-36 2025 ADT Volumes (000s) – A7C-FECV-C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	C-39
C-37 2025 ADT Volumes (000s) – AIO Alternative (Buildout Circulation System with Proposed RMV Plan).....	C-40

LIST OF FIGURES (cont)

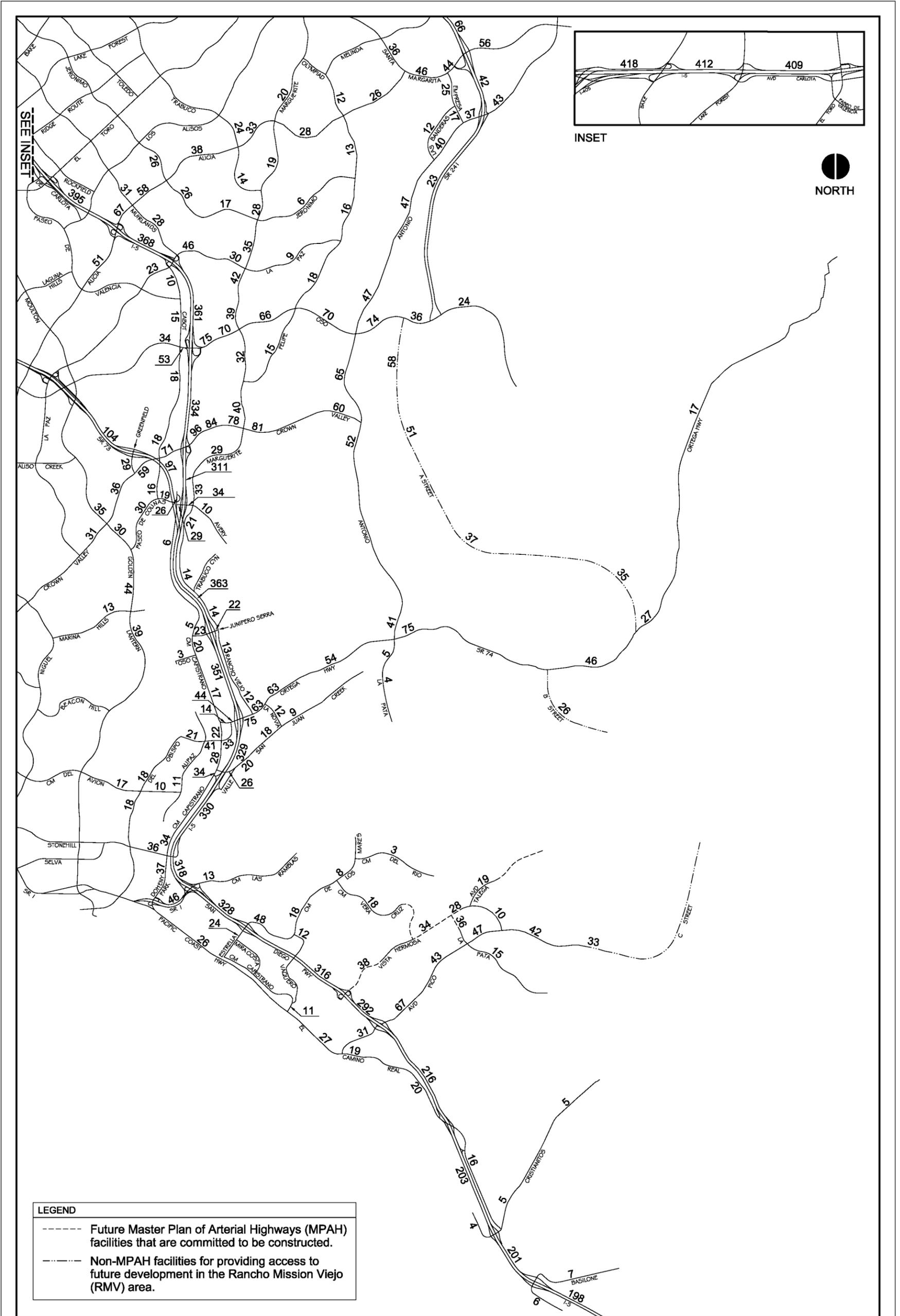
<u>Figure</u>	<u>Page</u>
C-38 2025 ADT Volumes (000s) – AIO Alternative (Buildout Circulation System with OCP-2000 for RMV).....	C-41
C-39 2025 ADT Volumes (000s) – AIP Alternative (Buildout Circulation System with Proposed RMV Plan).....	C-42
C-40 2025 ADT Volumes (000s) – AIP Alternative (Buildout Circulation System with OCP-2000 for RMV).....	C-43
C-41 2025 ADT Volumes (000s) – I-5 Alternative (Committed Circulation System with Proposed RMV Plan).....	C-44
C-42 2025 ADT Volumes (000s) – I-5 Alternative (Buildout Circulation System with Proposed RMV Plan).....	C-45
C-43 2025 ADT Volumes (000s) – I-5 Alternative (Buildout Circulation System with OCP-2000 for RMV).....	C-46



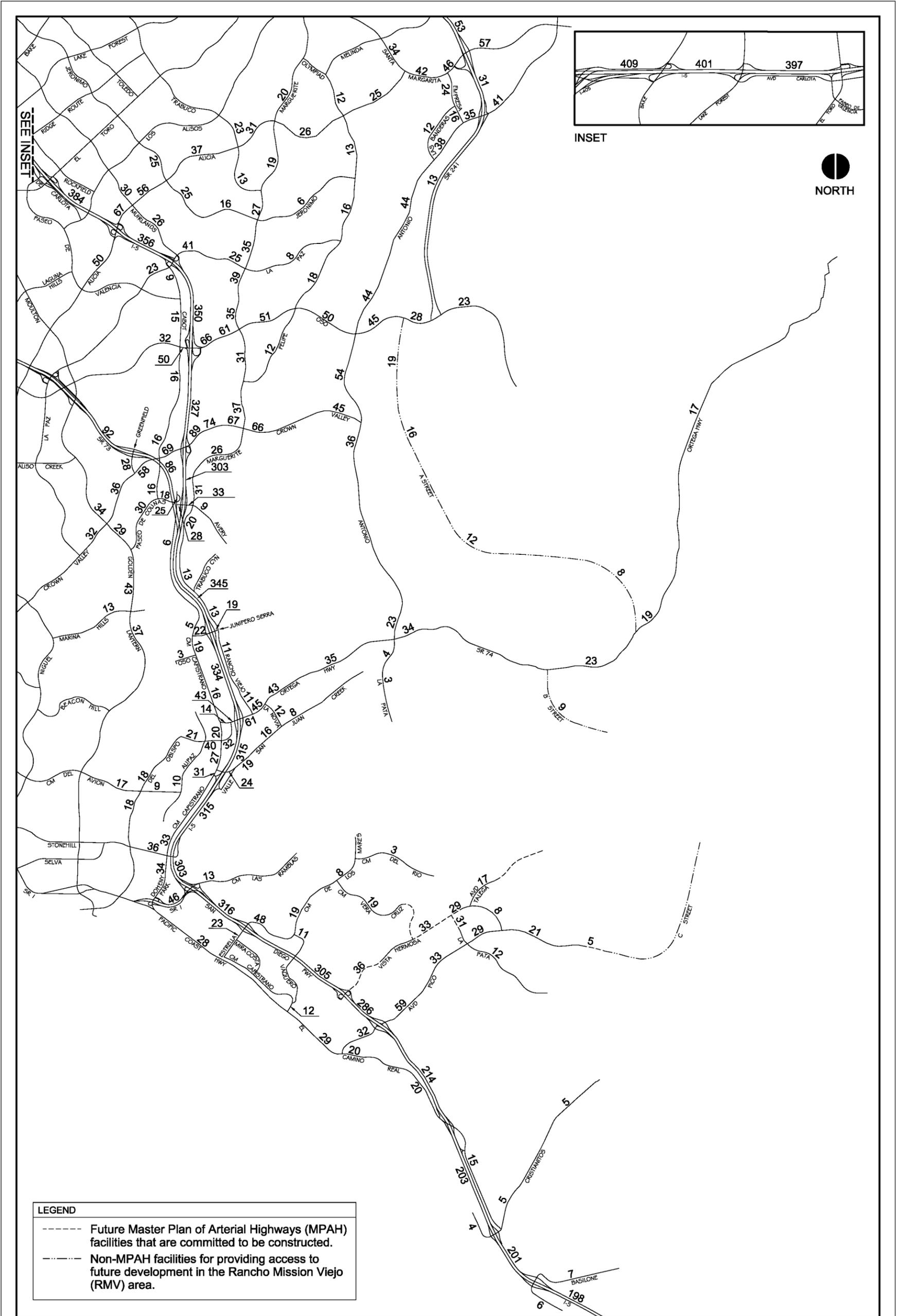
Existing ADT Volumes (000s)



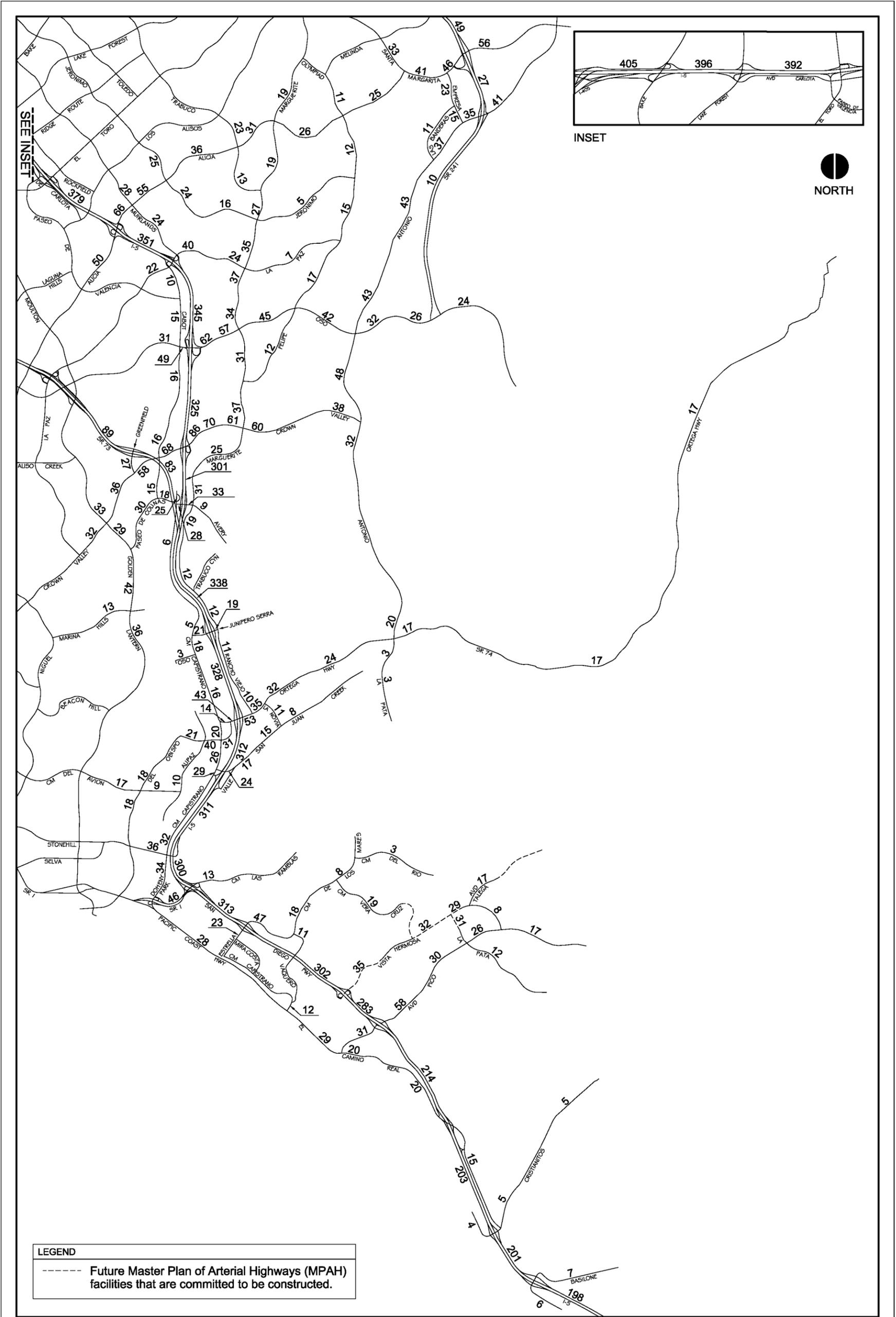
2025 ADT Volumes (000s) - No Action Alternative
(Committed Circulation System with Proposed RMV Plan)



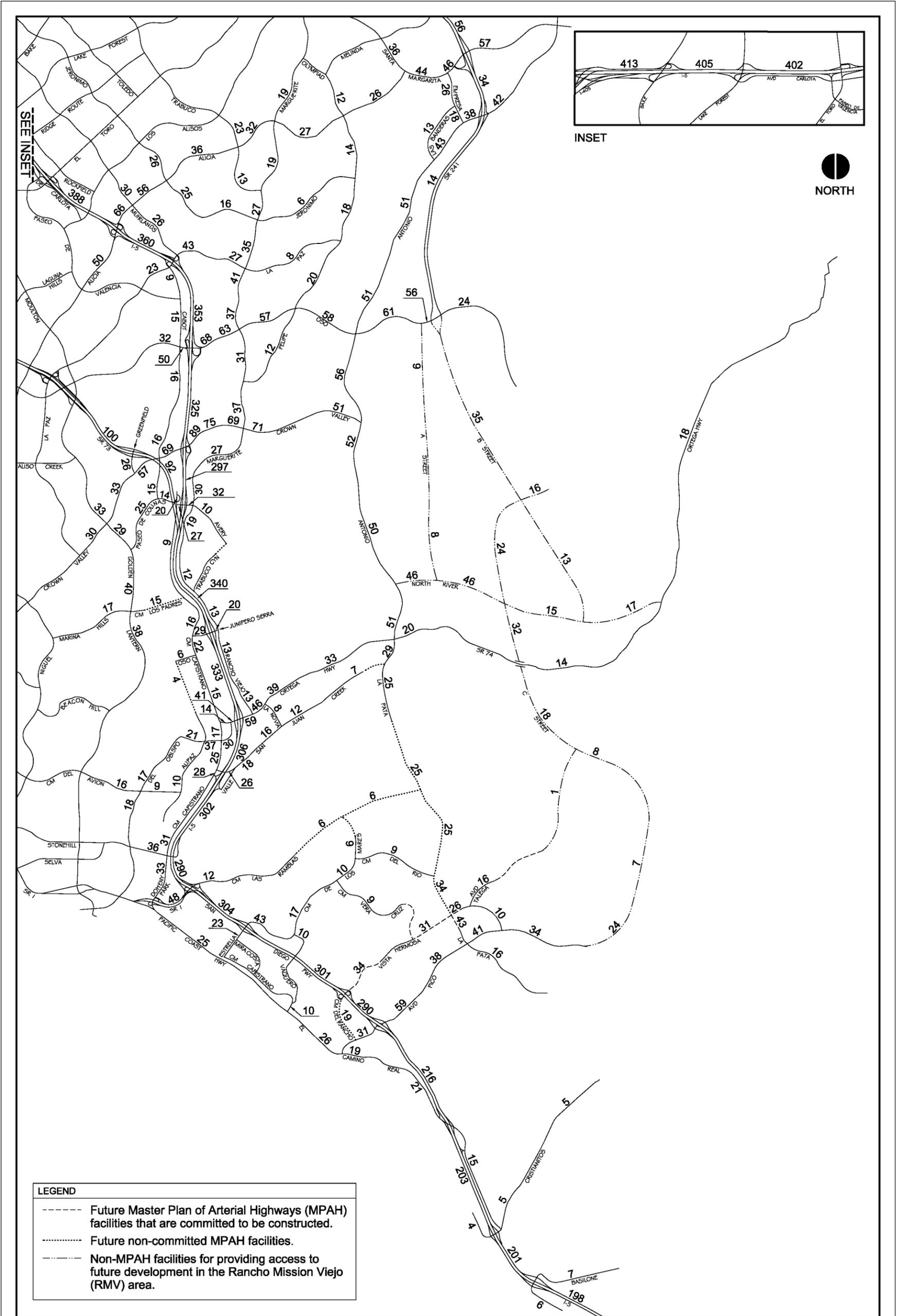
2025 ADT Volumes (000s) - No Action Alternative
 (Committed Circulation System with OCP-2000 for RMV)



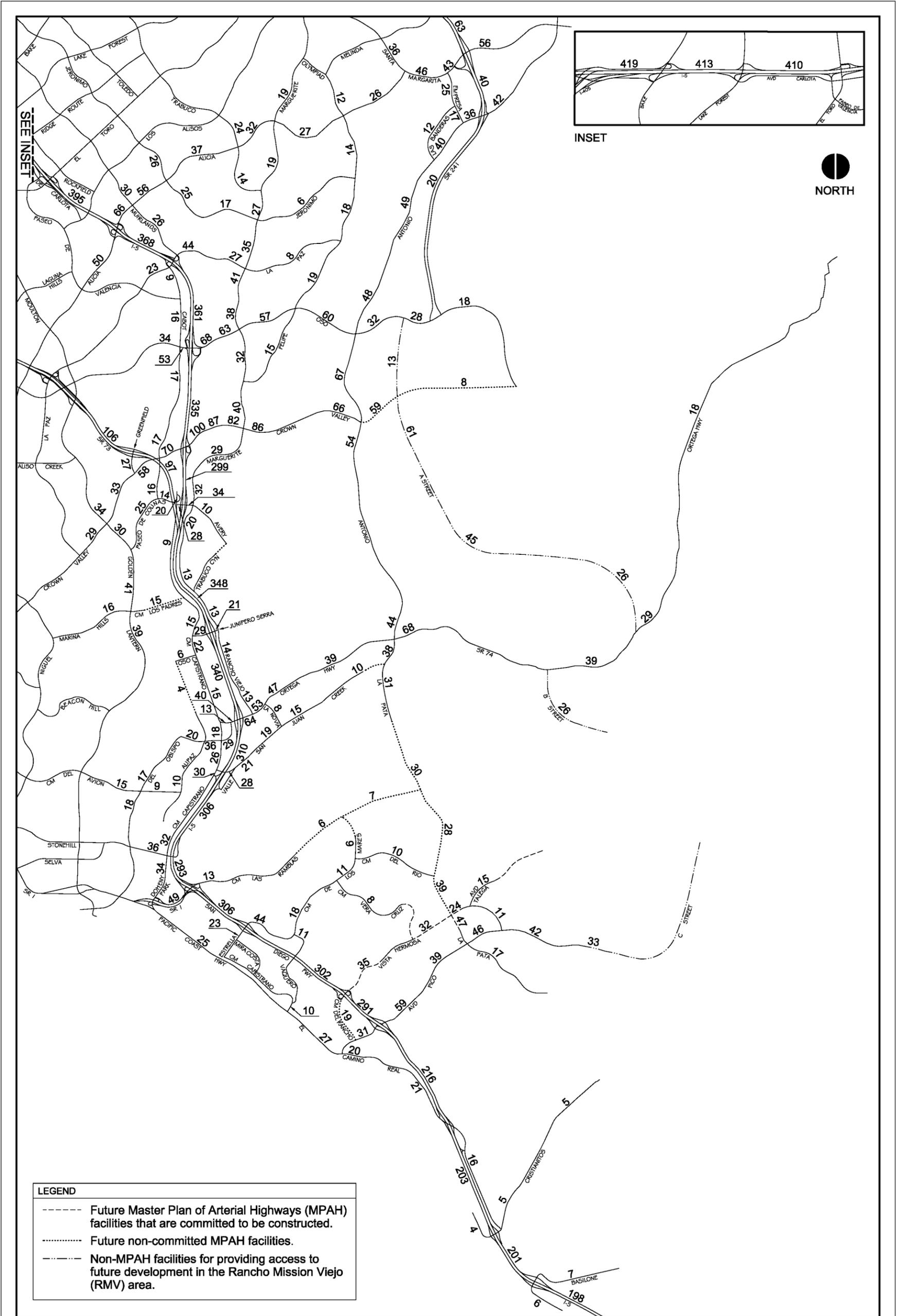
**2025 ADT Volumes (000s) - No Action Alternative
(Committed Circulation System with Existing General Plan for RMV)**



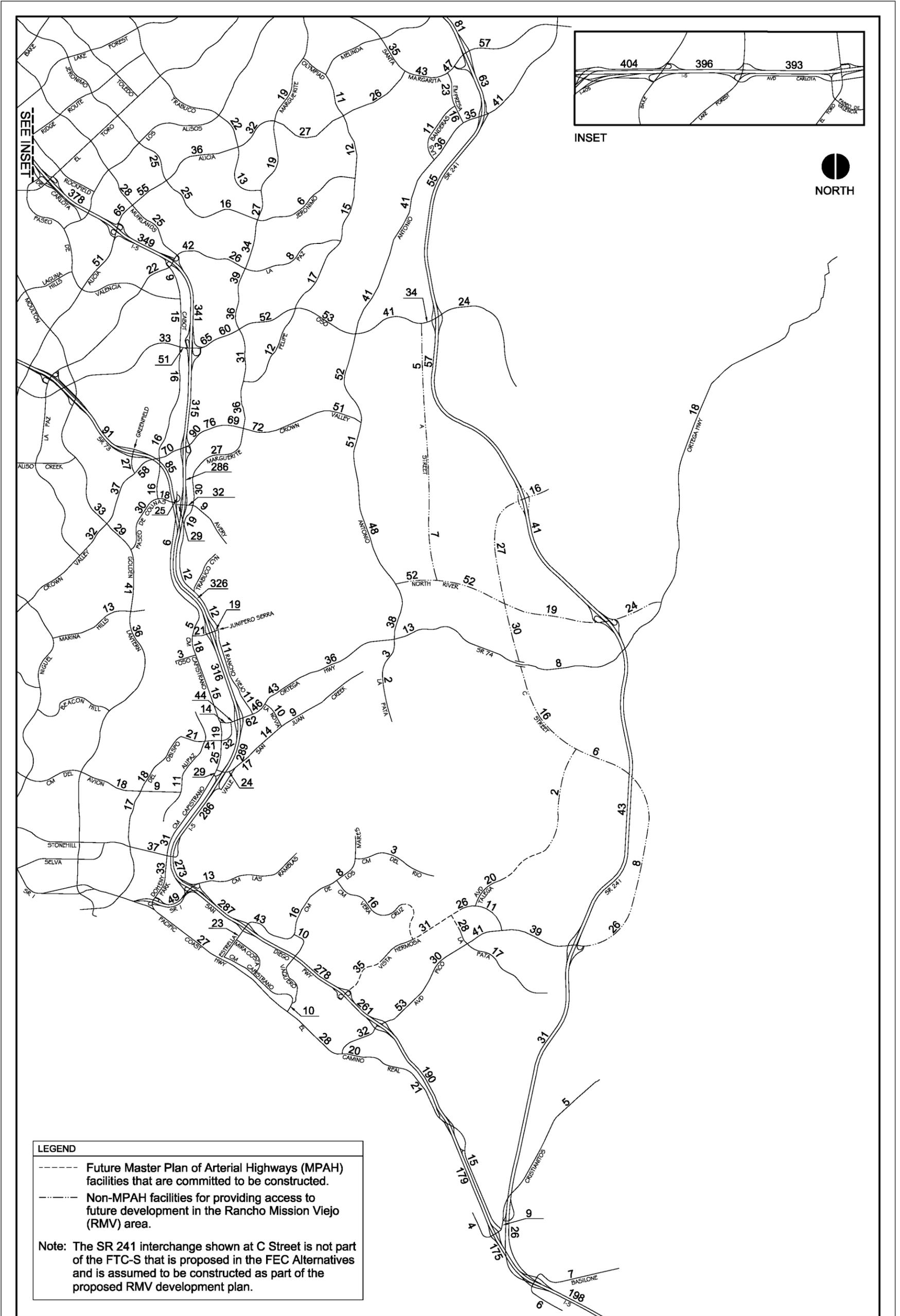
2025 ADT Volumes (000s) - No Action Alternative
 (Committed Circulation System with No Future Development in RMV)



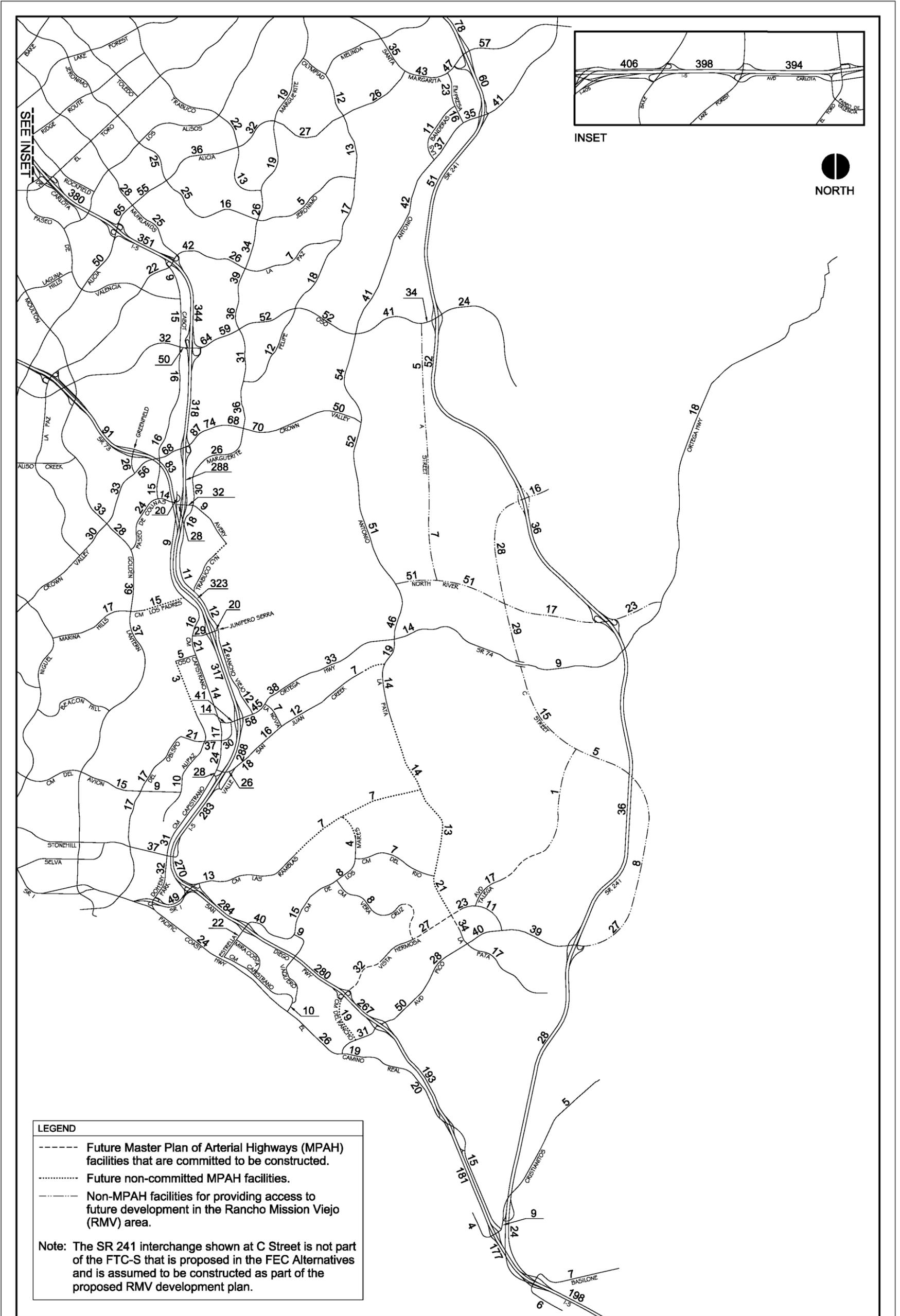
2025 ADT Volumes (000s) - No Action Alternative
(Buildout Circulation System with Proposed RMV Plan)



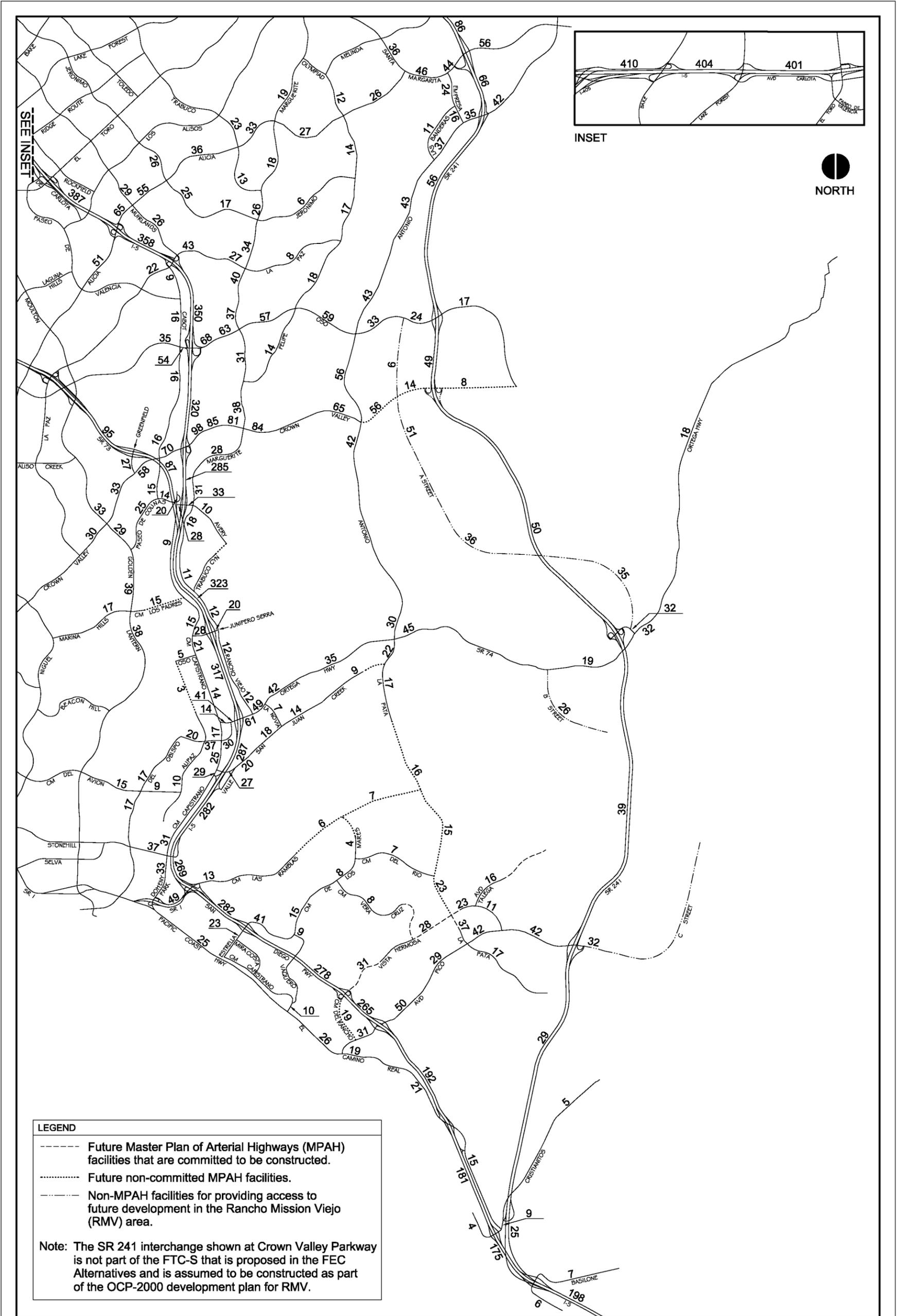
2025 ADT Volumes (000s) - No Action Alternative
(Buildout Circulation System with OCP-2000 for RMV)



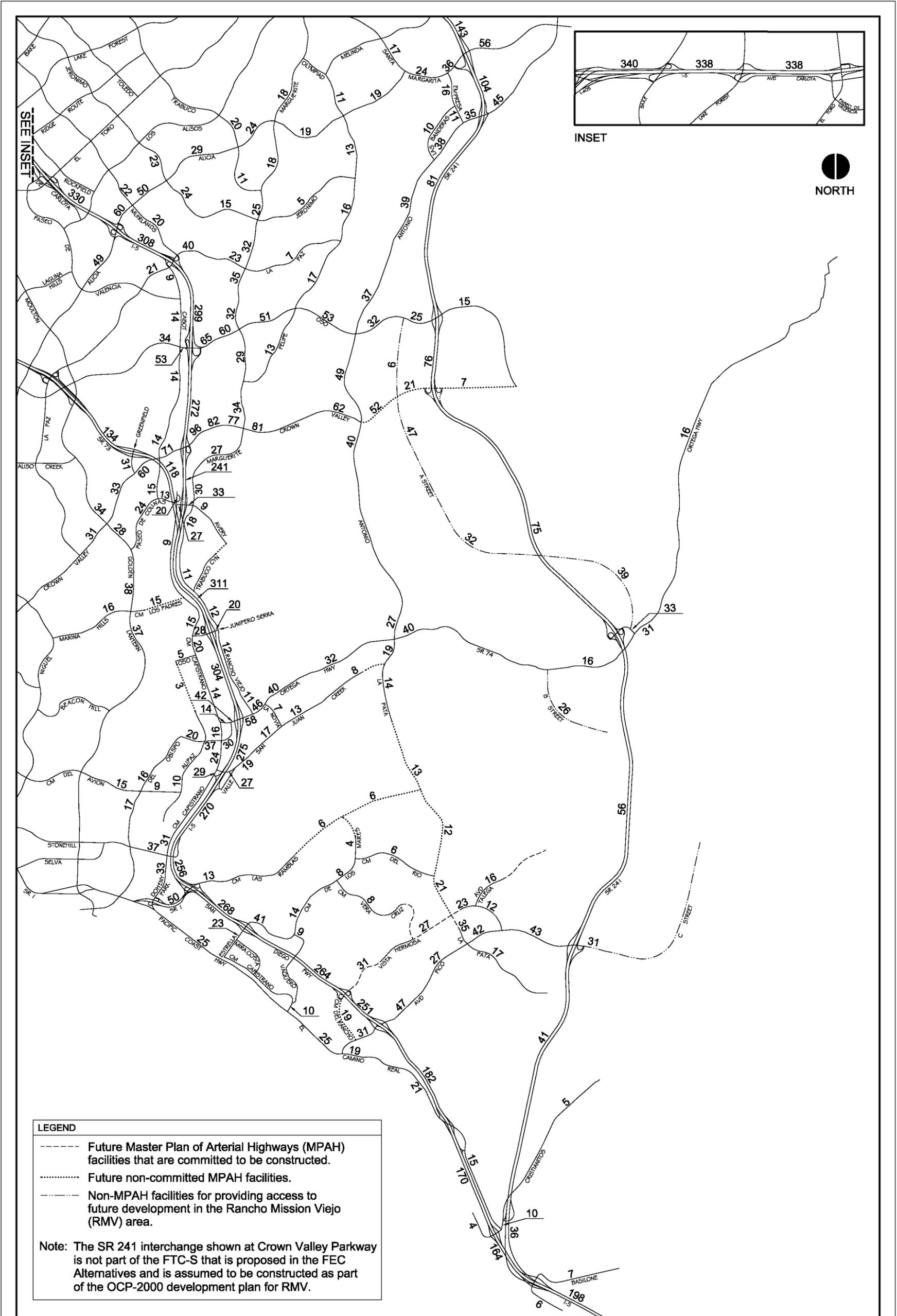
2025 ADT Volumes (000s) - FEC-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)



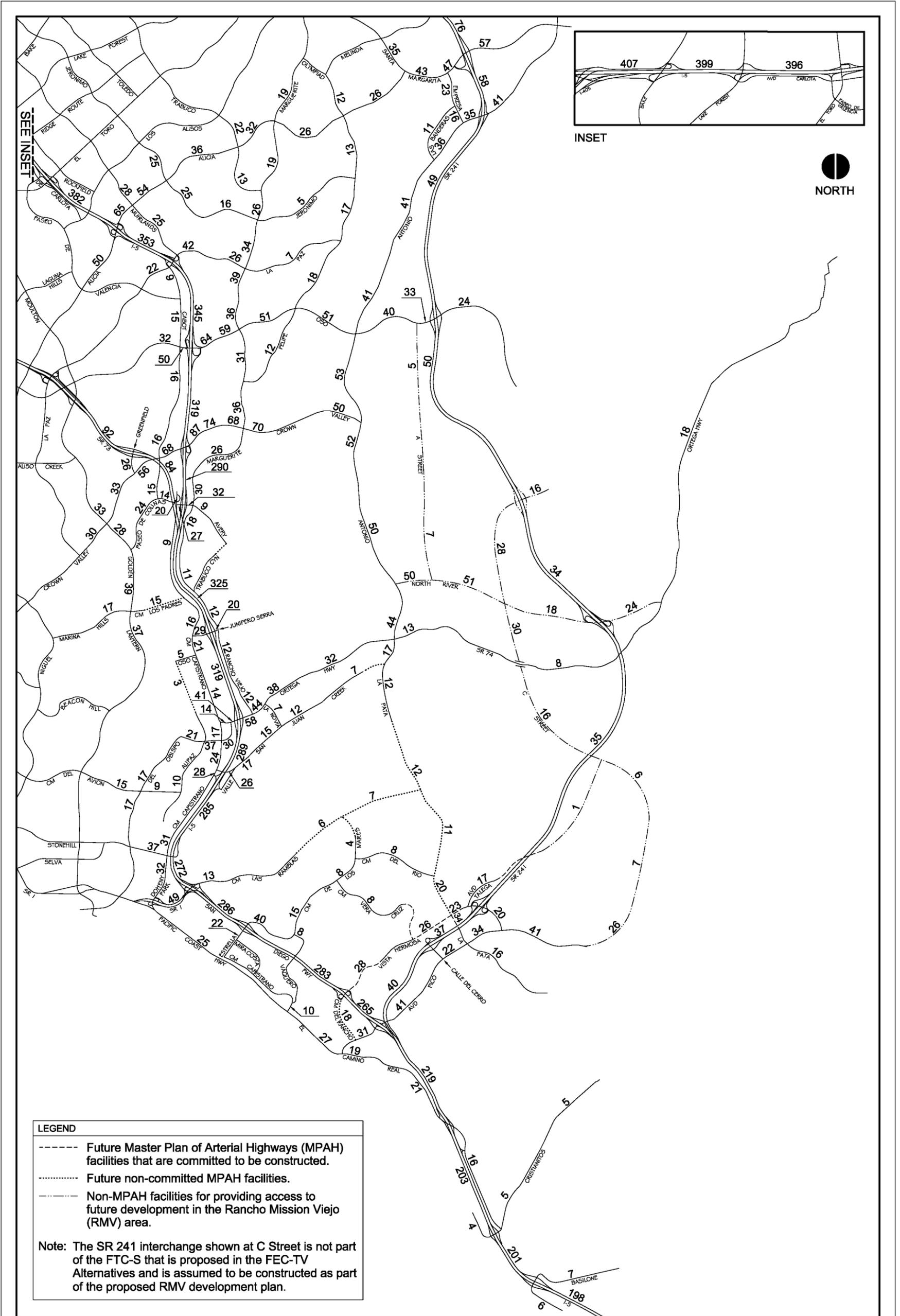
2025 ADT Volumes (000s) - FEC-Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)



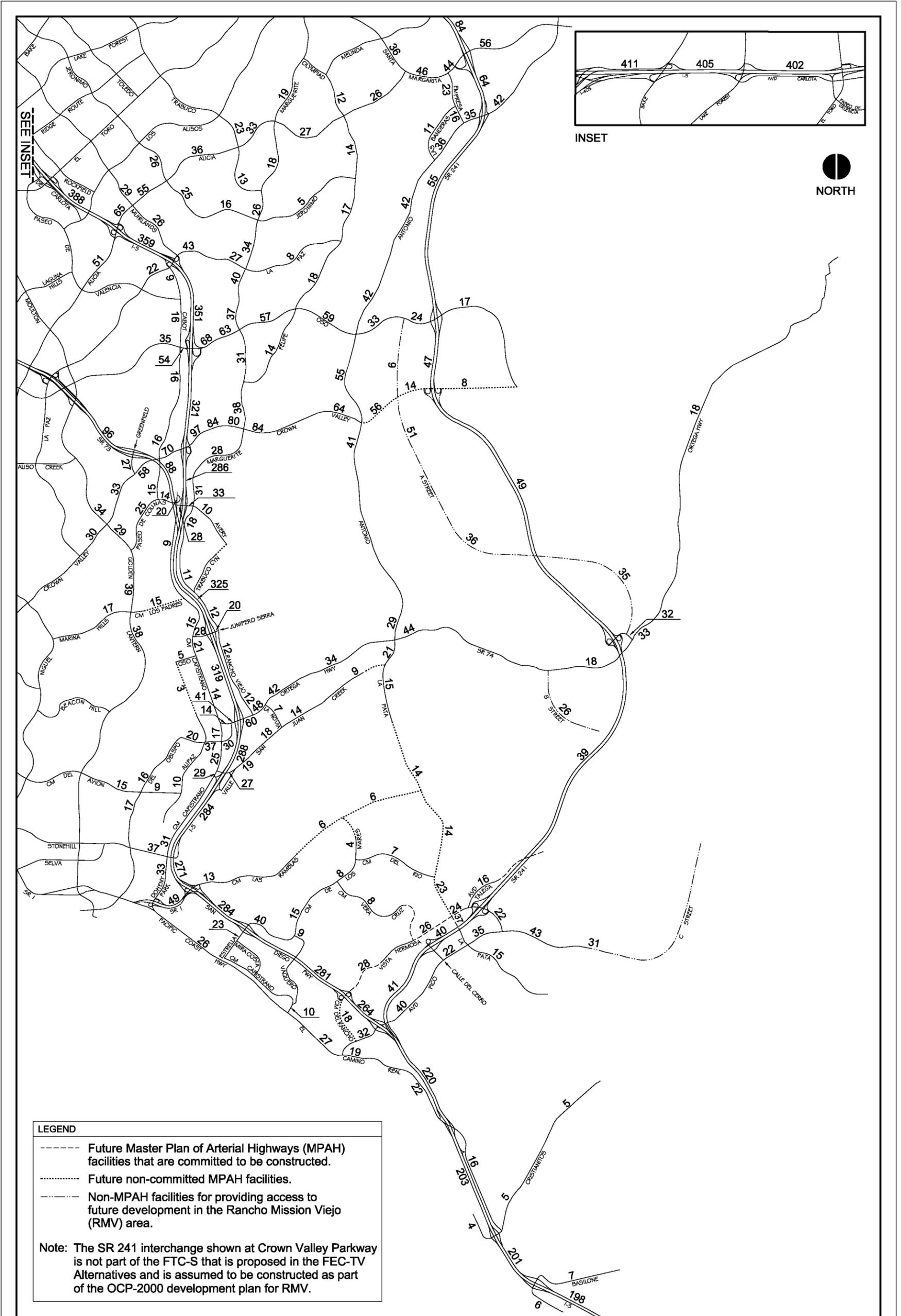
2025 ADT Volumes (000s) - FEC-Initial and Ultimate Alternatives
(Buildout Circulation System with OCP-2000 for RMV)



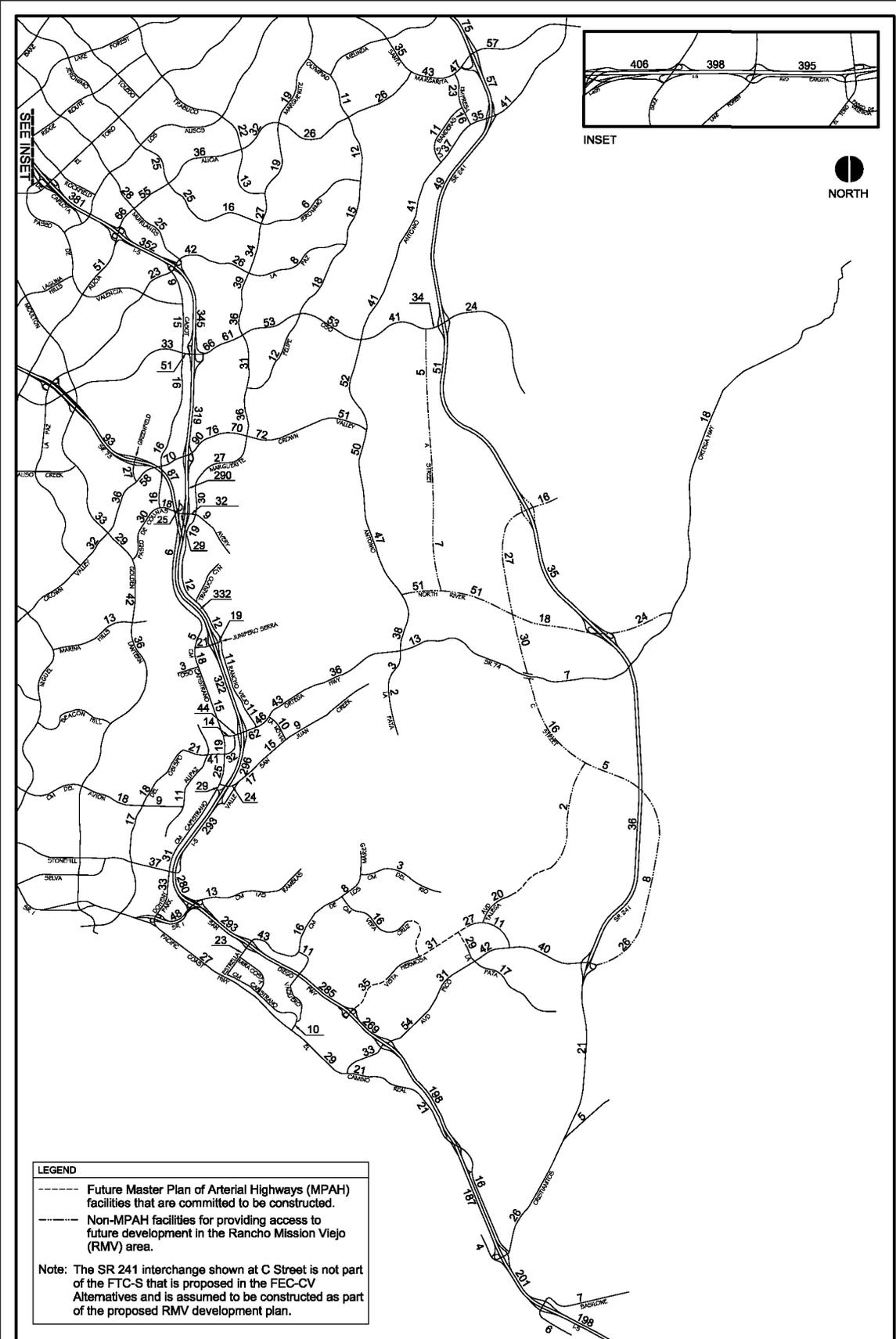
2025 ADT Volumes (000s) - FEC-Ultimate Alternative
(Buildout Toll-Free Circulation System with OCP-2000 for RMV)



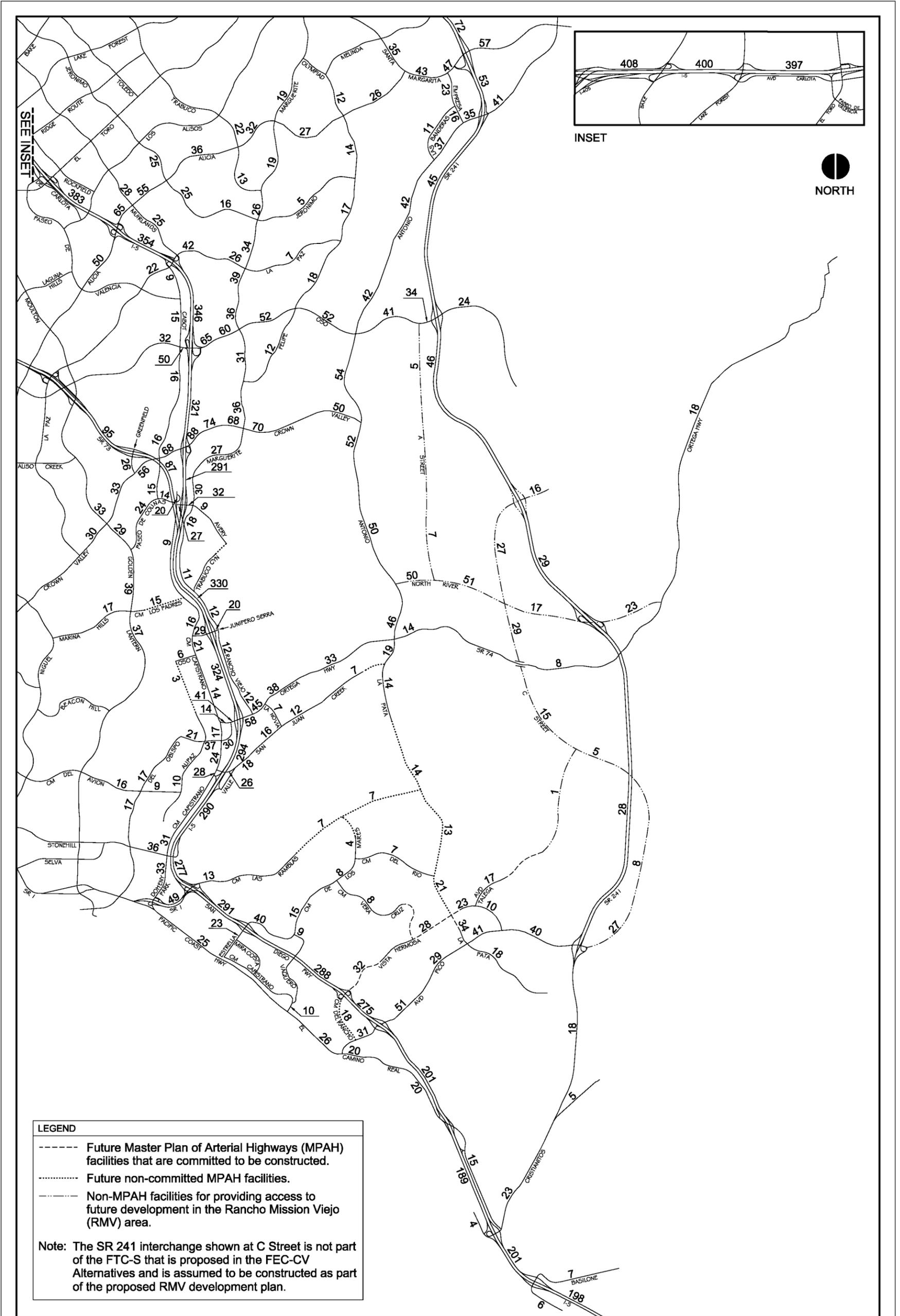
2025 ADT Volumes (000s) - FEC-TV-Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)



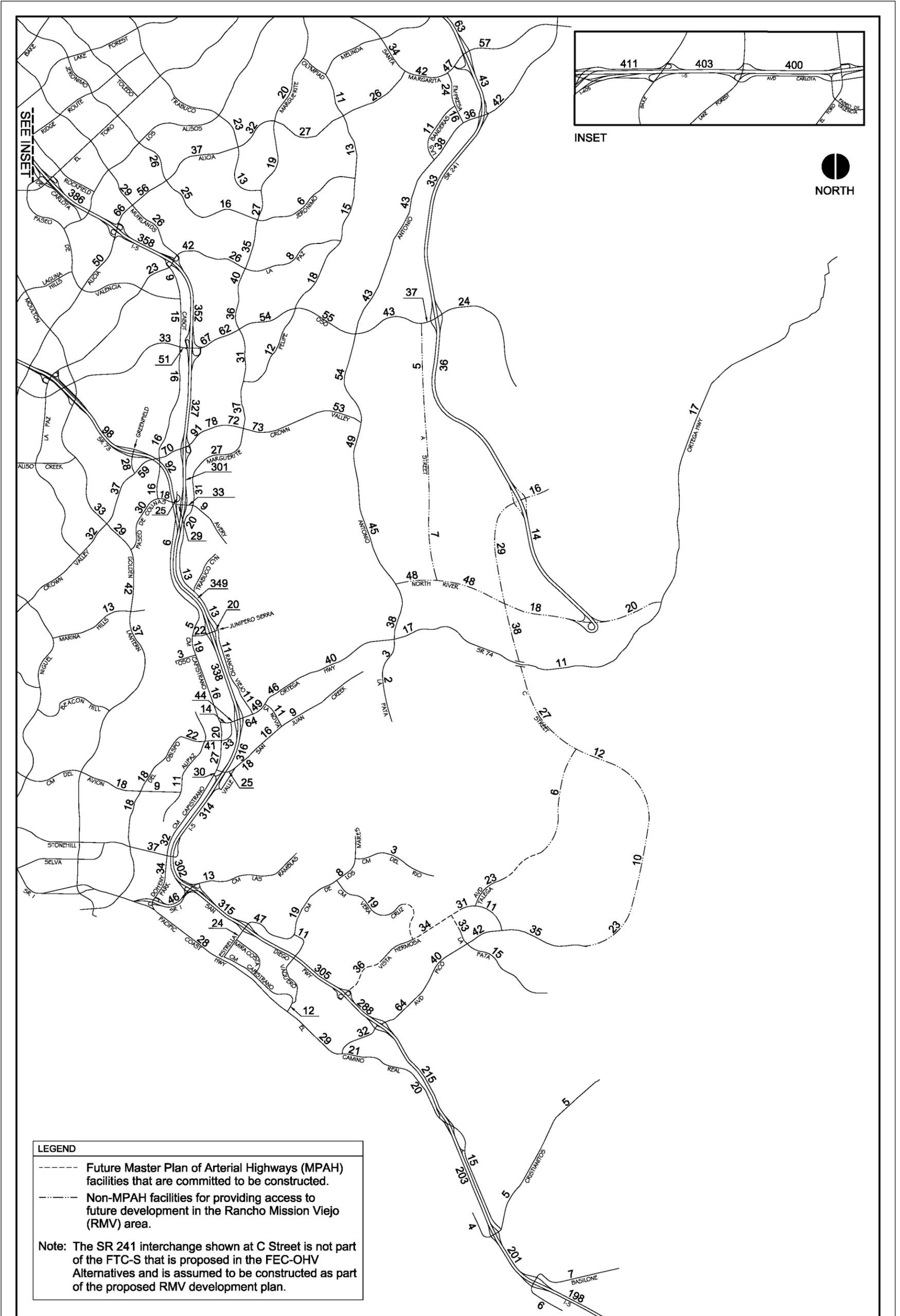
**2025 ADT Volumes (000s) - FEC-TV-Initial and Ultimate Alternatives
(Buildout Circulation System with OCP-2000 for RMV)**



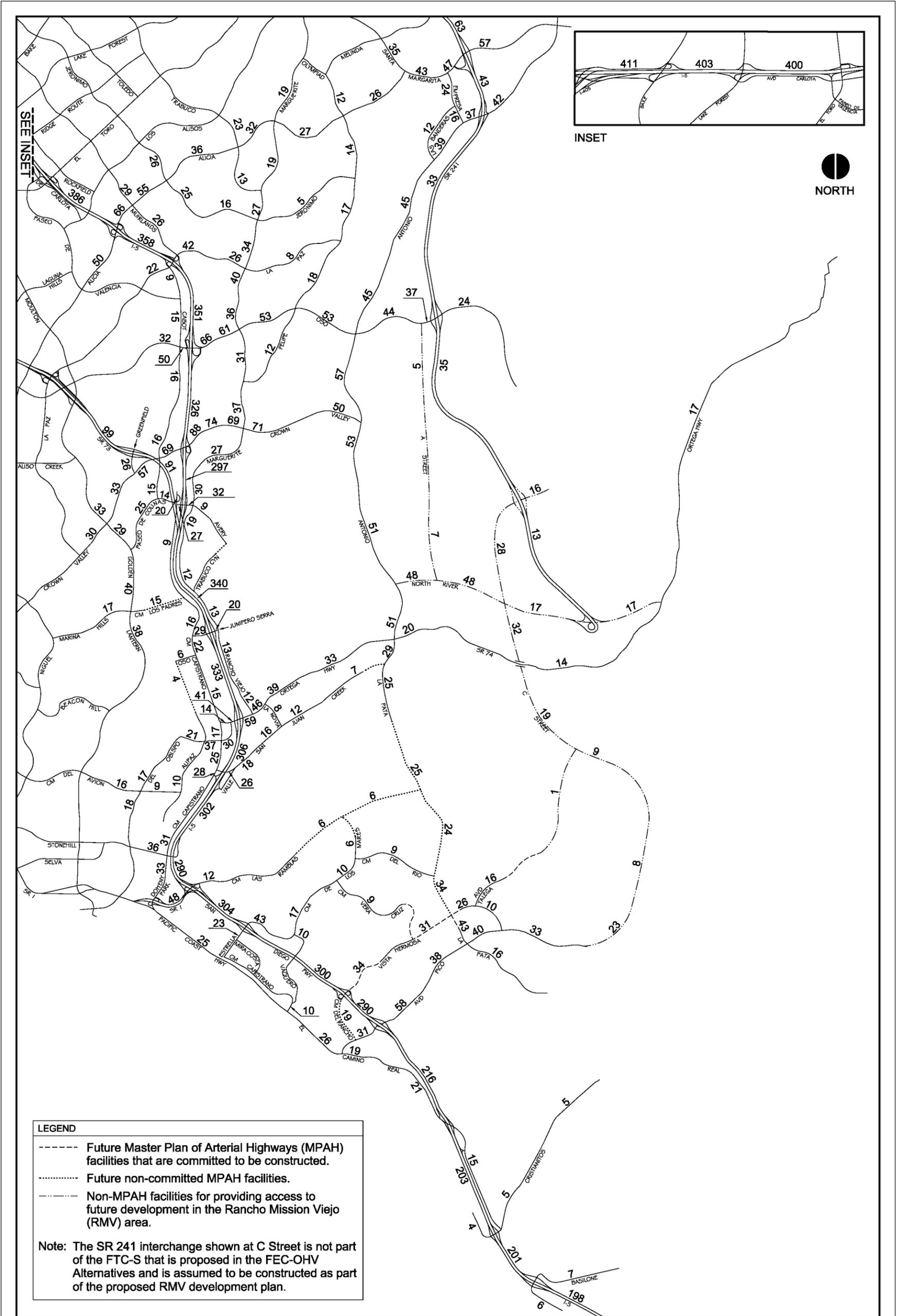
2025 ADT Volumes (000s) - FEC-CV-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)



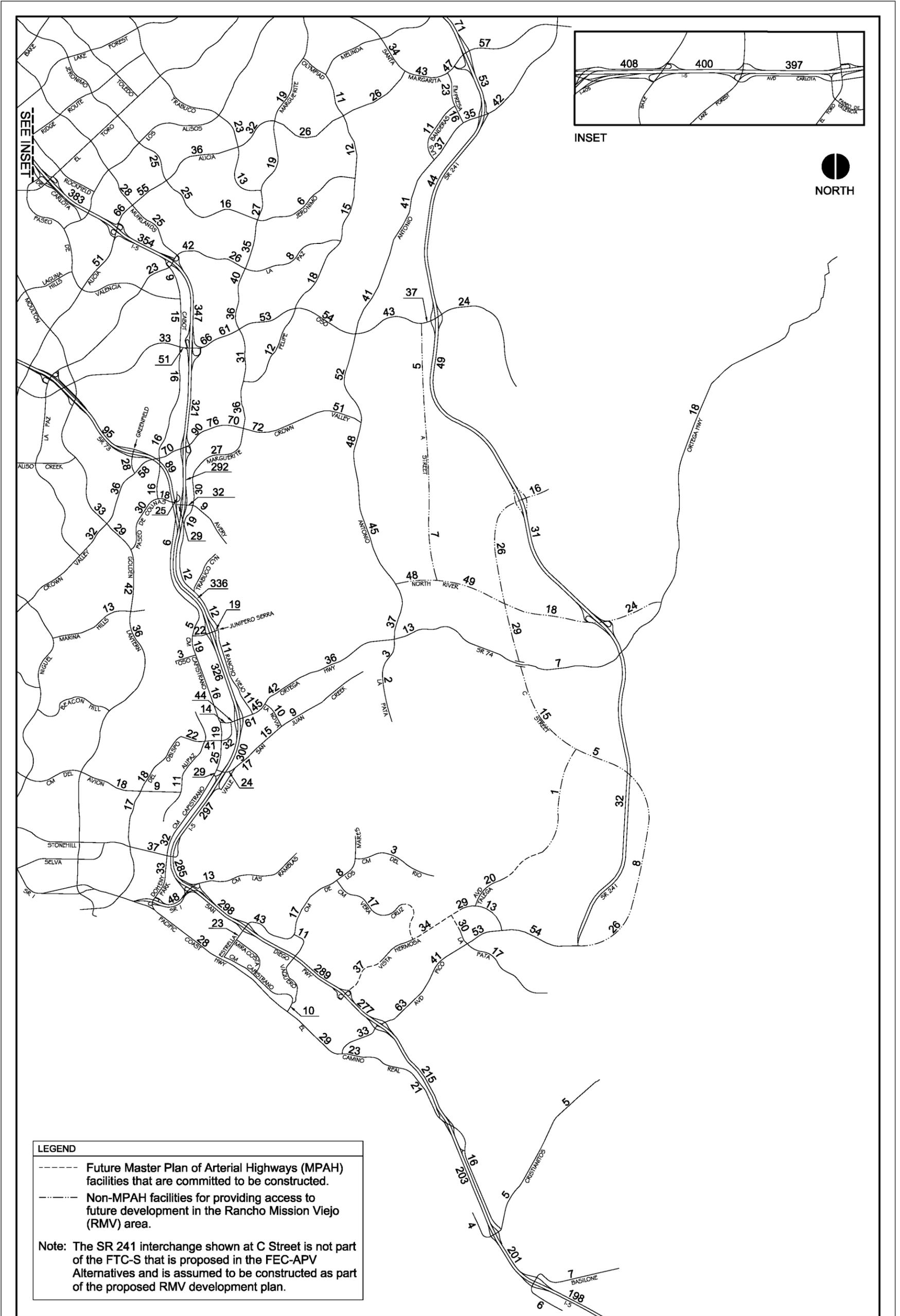
**2025 ADT Volumes (000s) - FEC-CV-Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)**



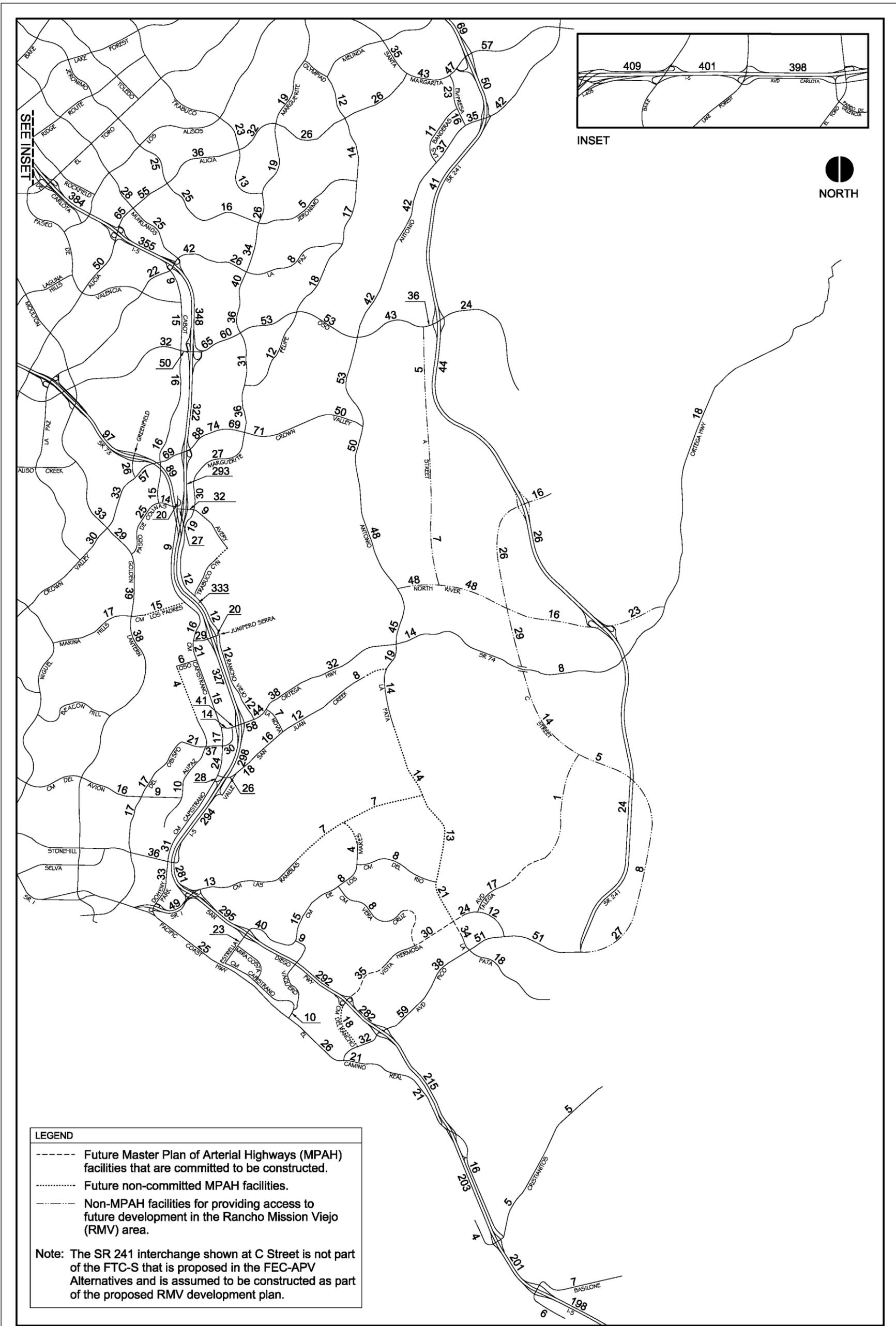
2025 ADT Volumes (000s) - FEC-OHV-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)



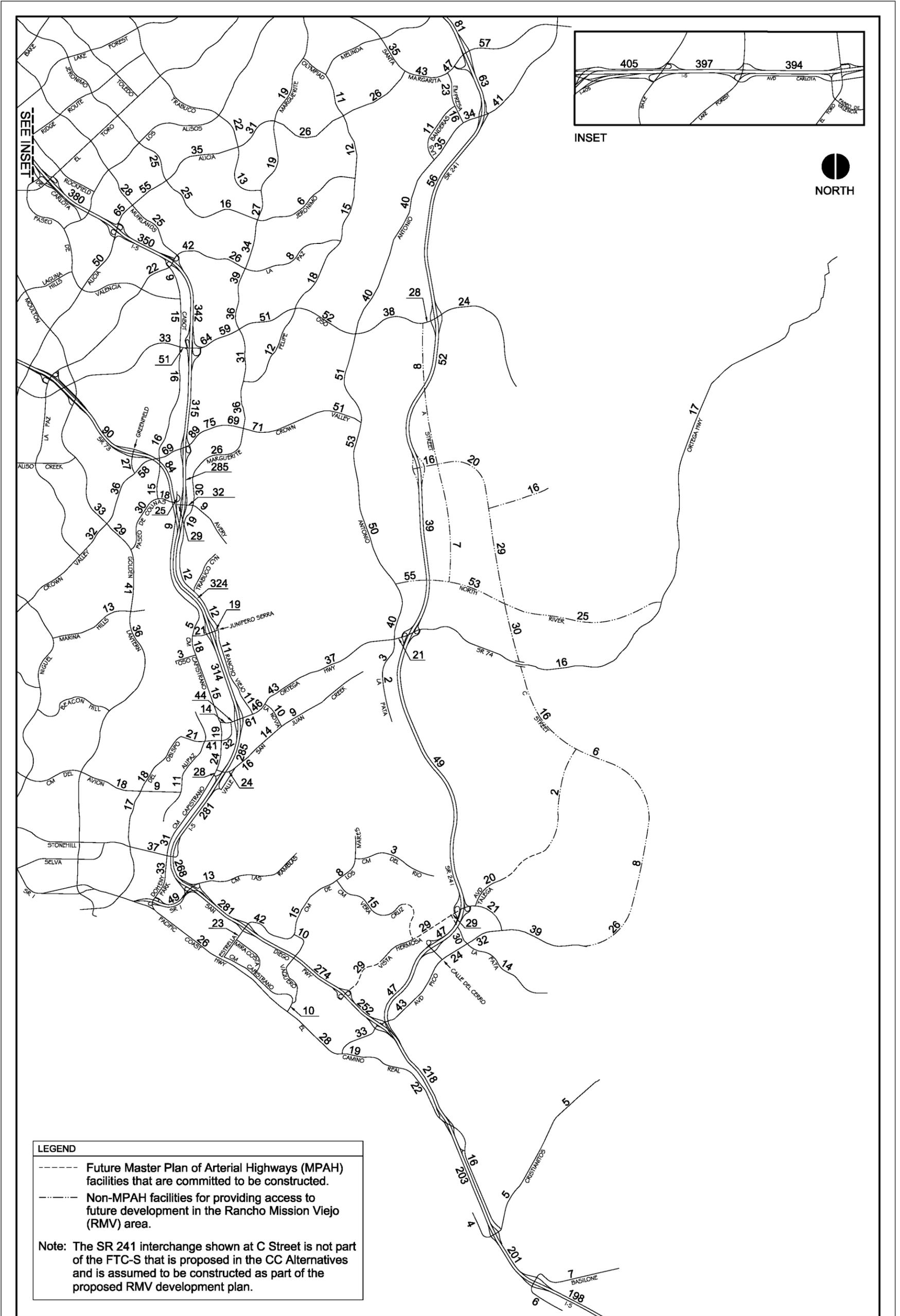
2025 ADT Volumes (000s) - FEC-OHV-Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)



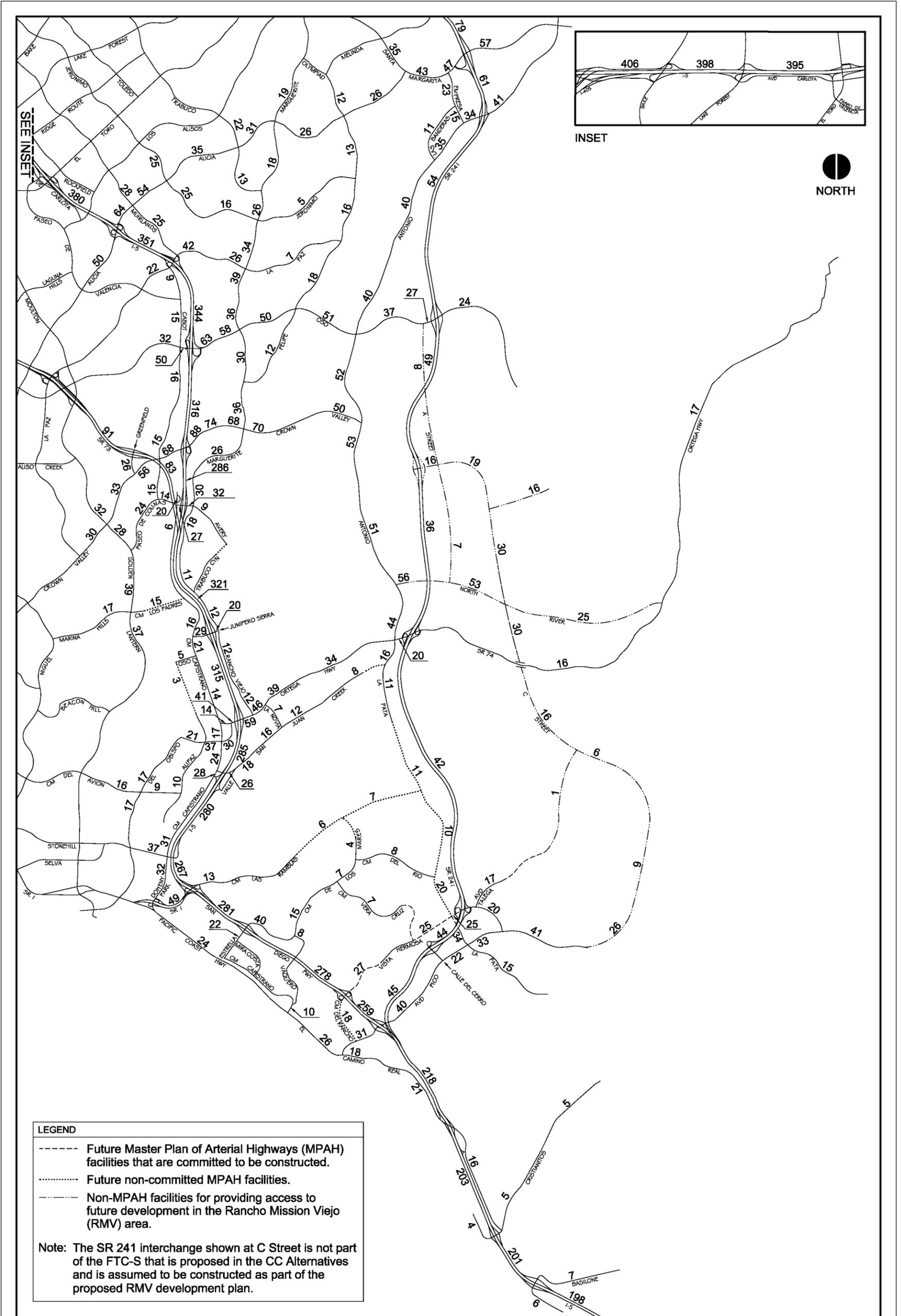
2025 ADT Volumes (000s) - FEC-APV-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)



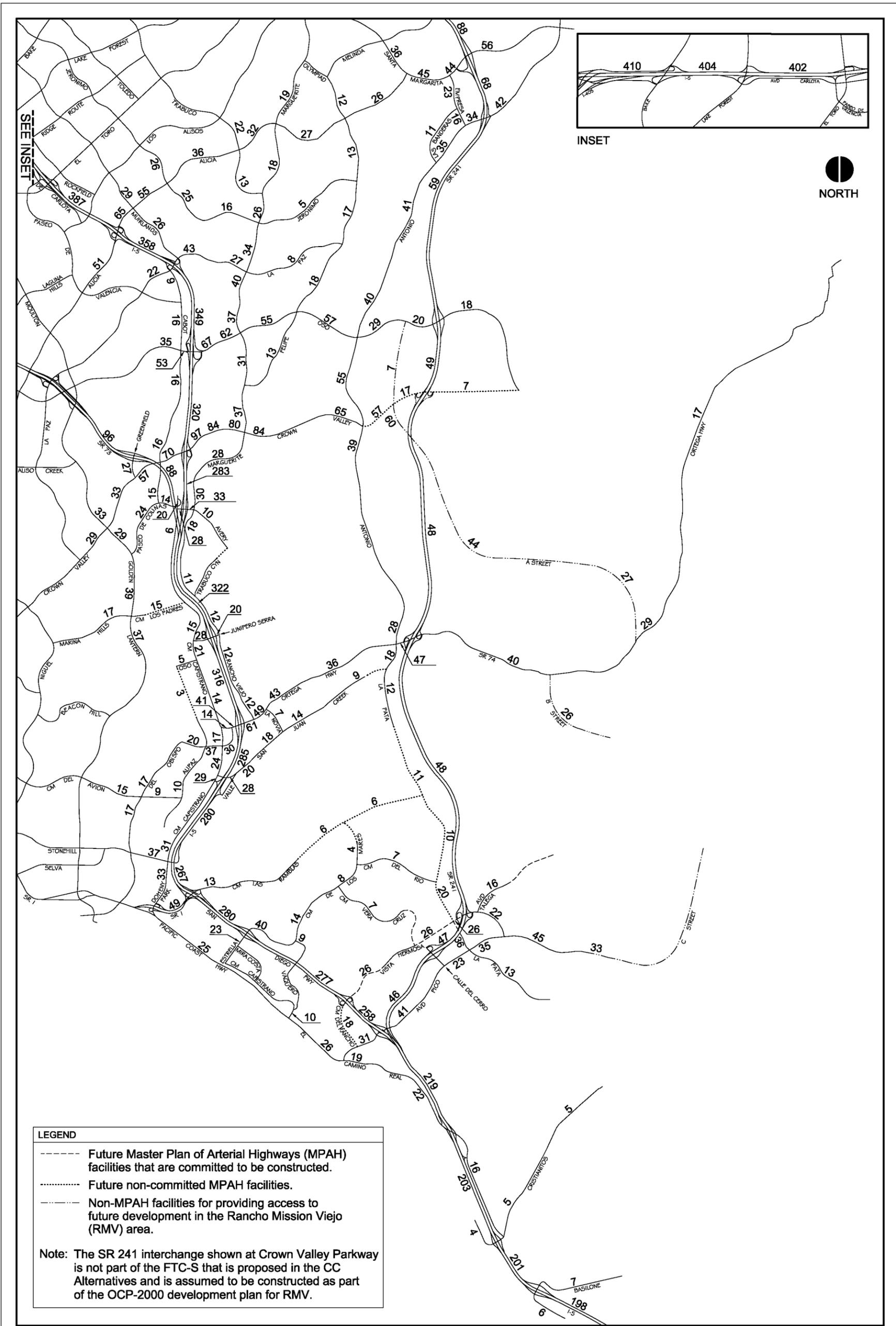
**2025 ADT Volumes (000s) - FEC-APV-Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)**



2025 ADT Volumes (000s) - CC-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)



2025 ADT Volumes (000s) - CC-Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)

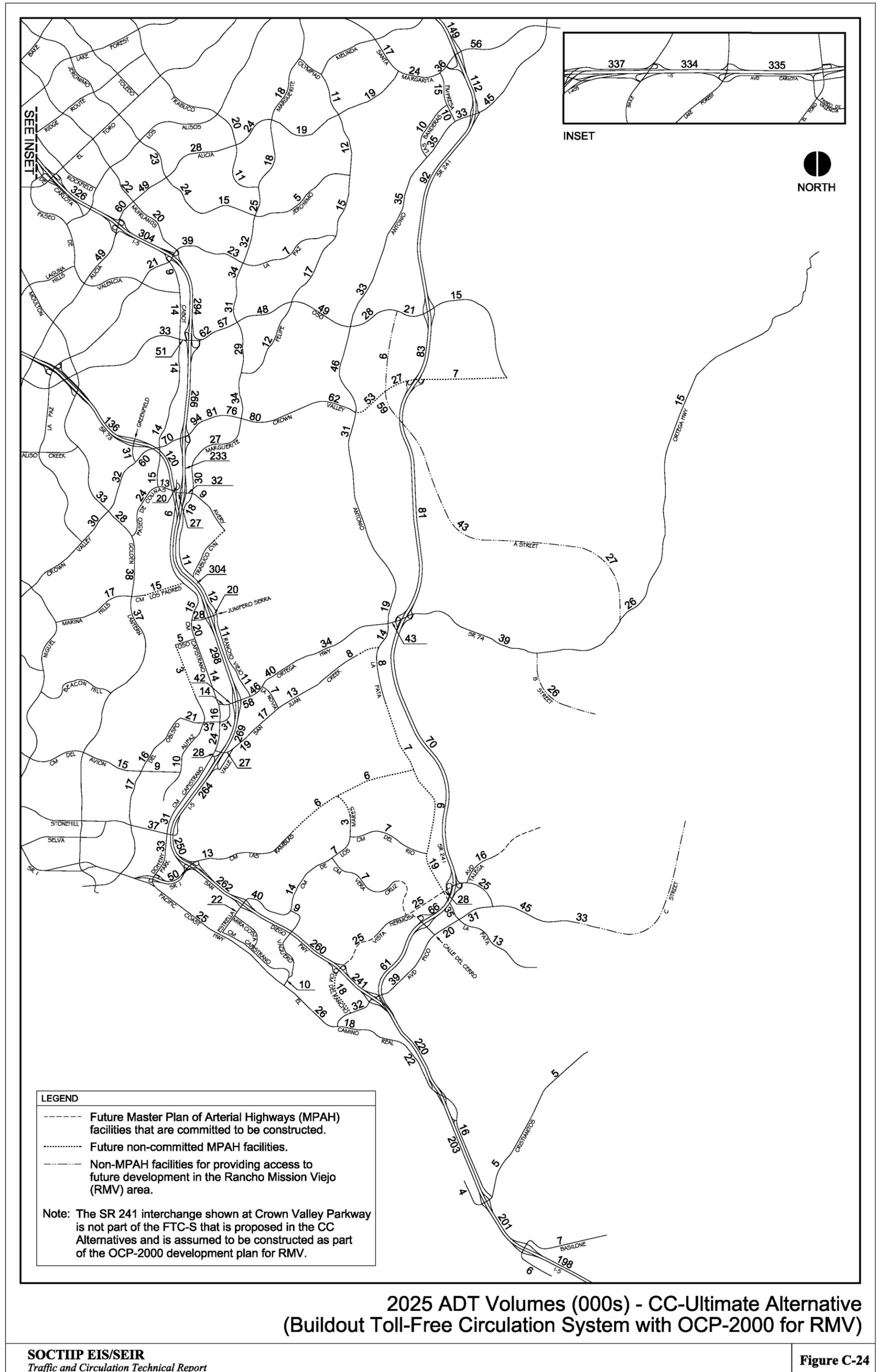


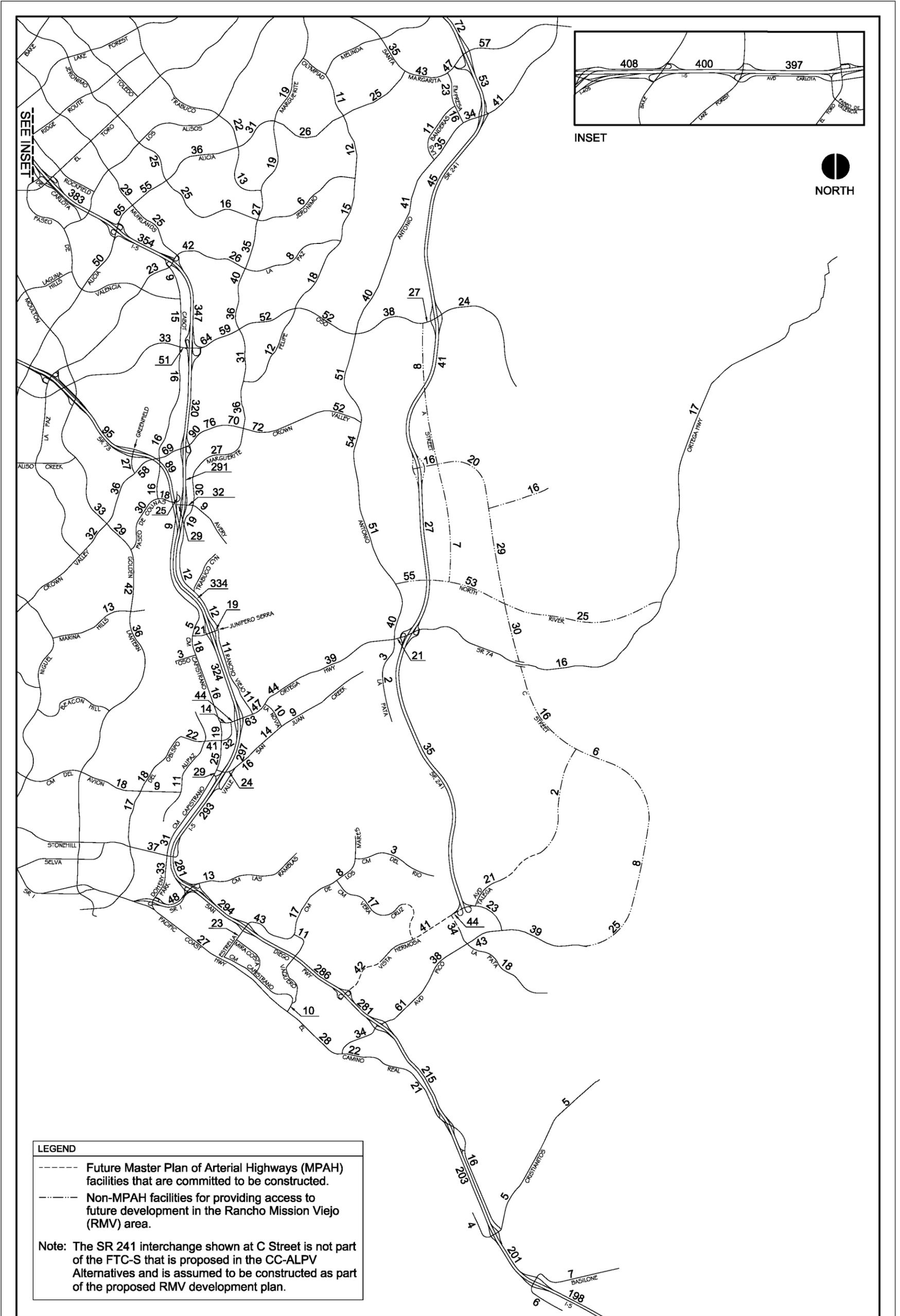
LEGEND

- Future Master Plan of Arterial Highways (MPAH) facilities that are committed to be constructed.
- Future non-committed MPAH facilities.
- Non-MPAH facilities for providing access to future development in the Rancho Mission Viejo (RMV) area.

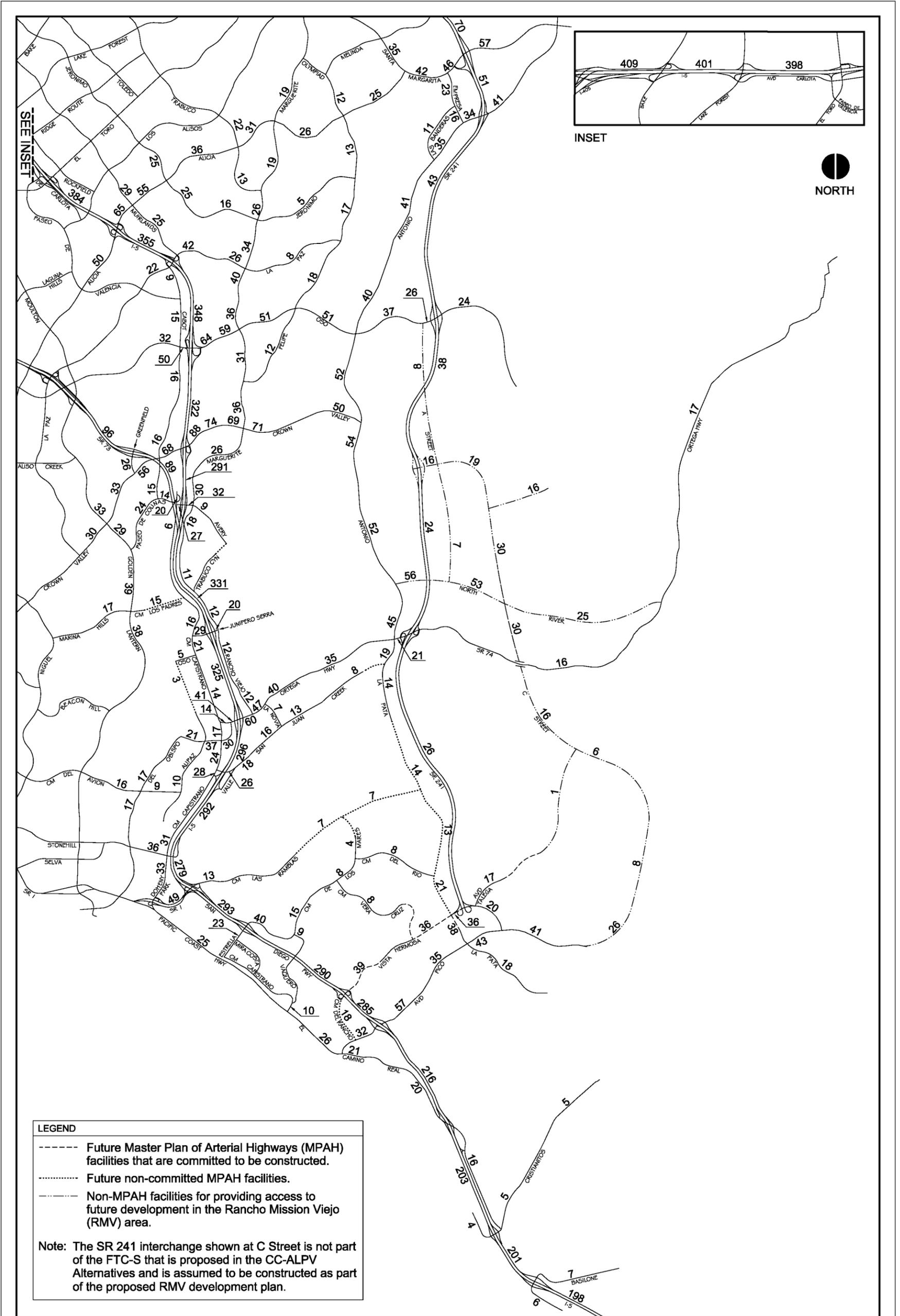
Note: The SR 241 interchange shown at Crown Valley Parkway is not part of the FTC-S that is proposed in the CC Alternatives and is assumed to be constructed as part of the OCP-2000 development plan for RMV.

2025 ADT Volumes (000s) - CC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)

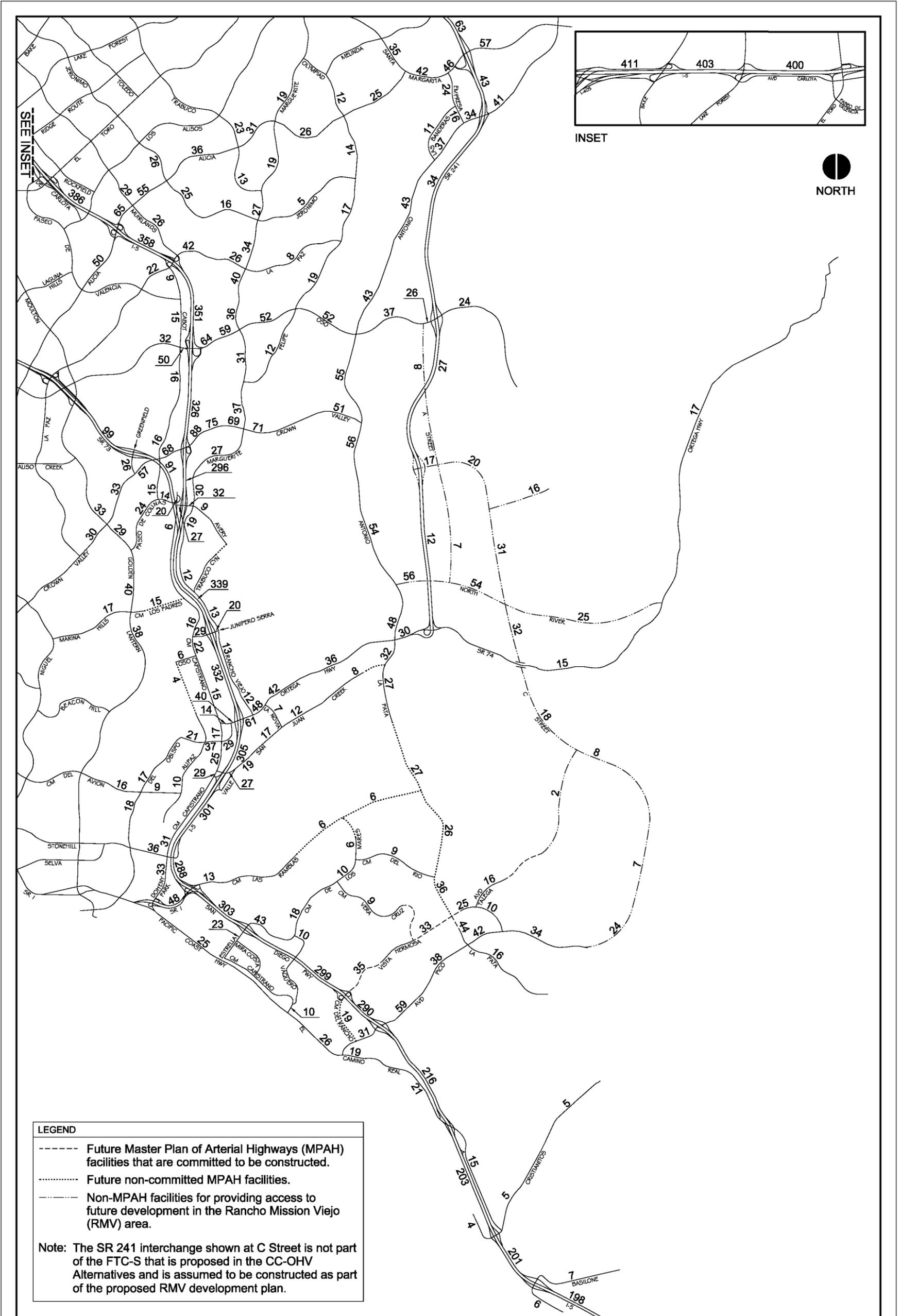




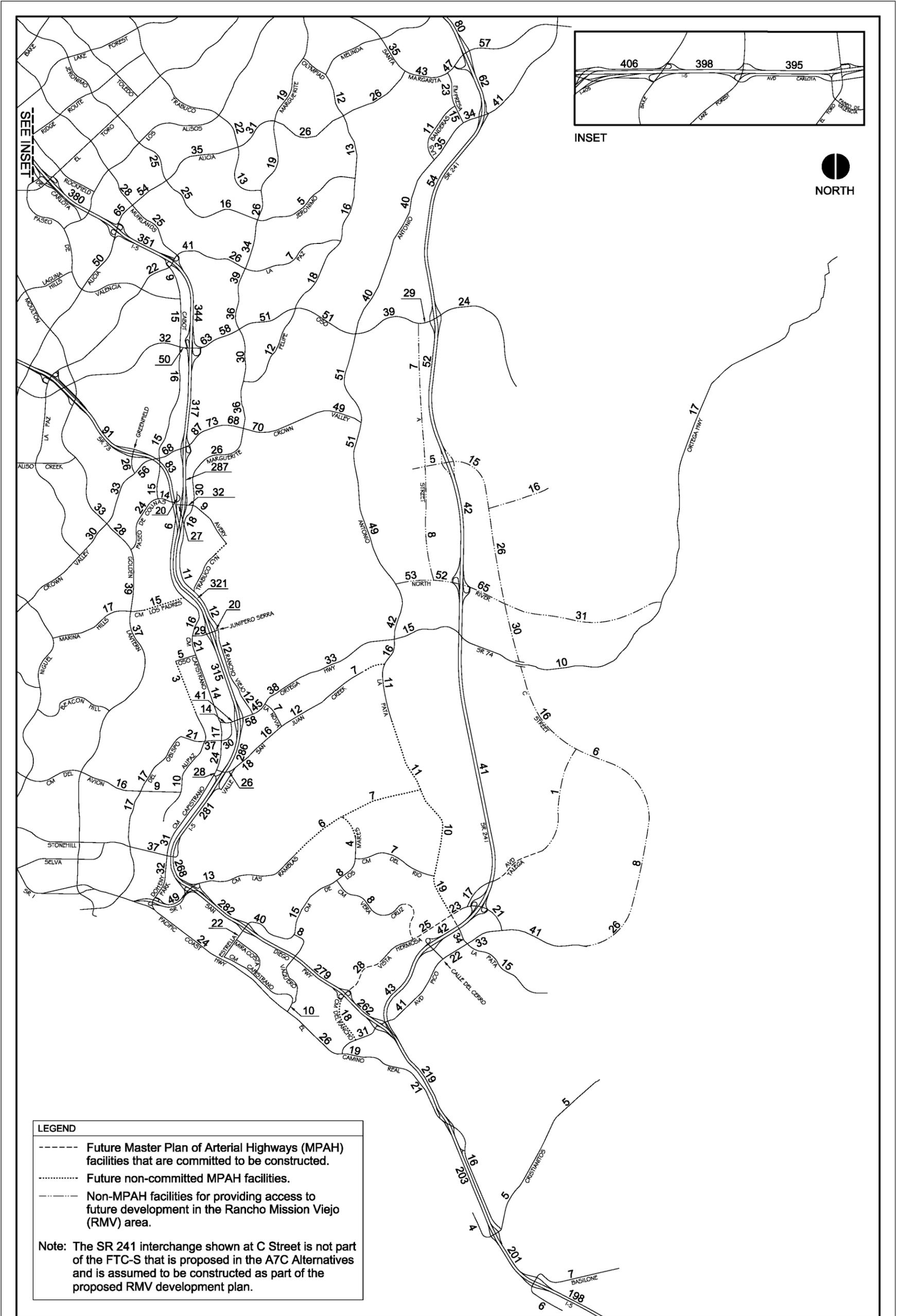
2025 ADT Volumes (000s) - CC-ALPV-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)



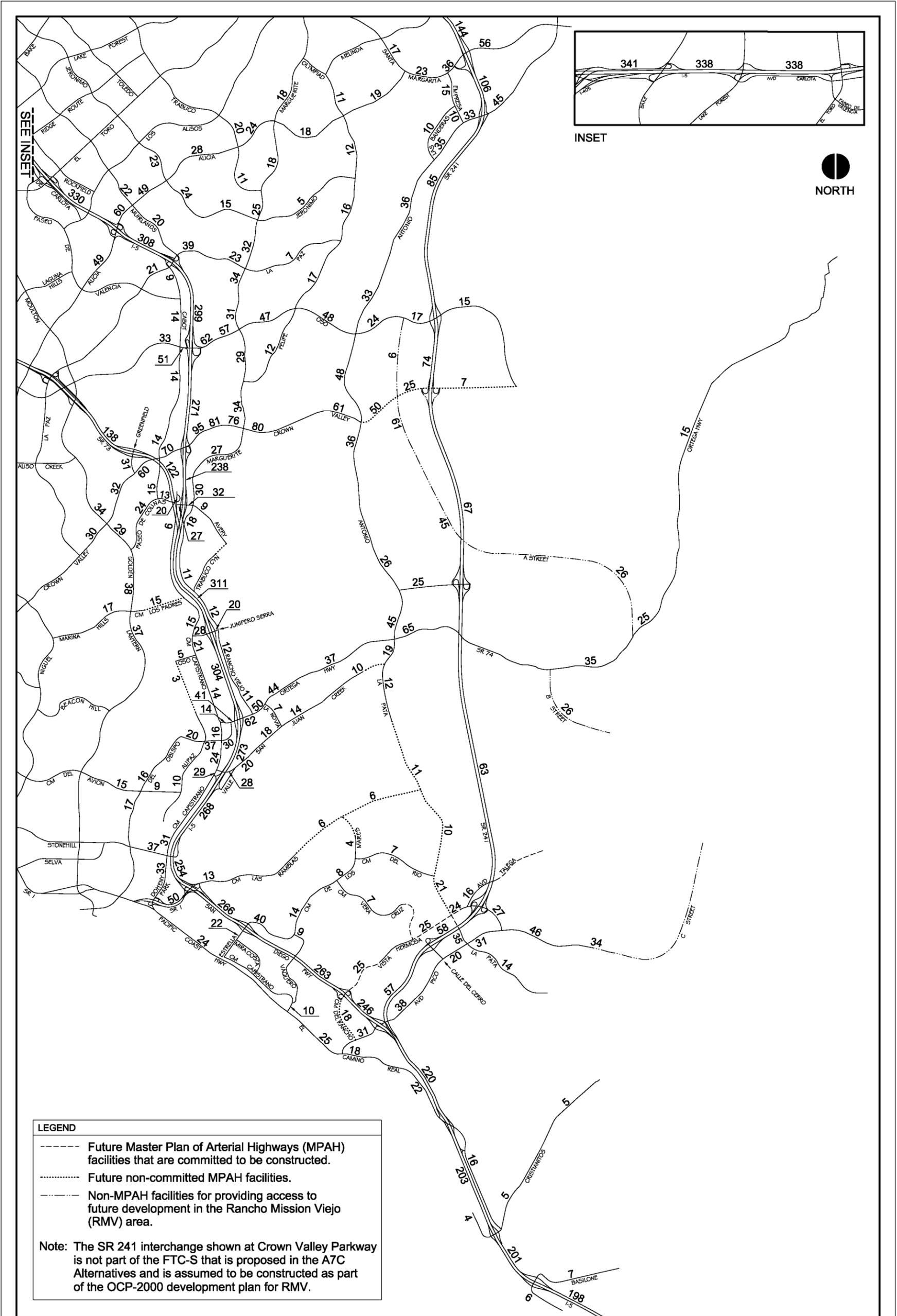
**2025 ADT Volumes (000s) - CC-ALPV-Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)**



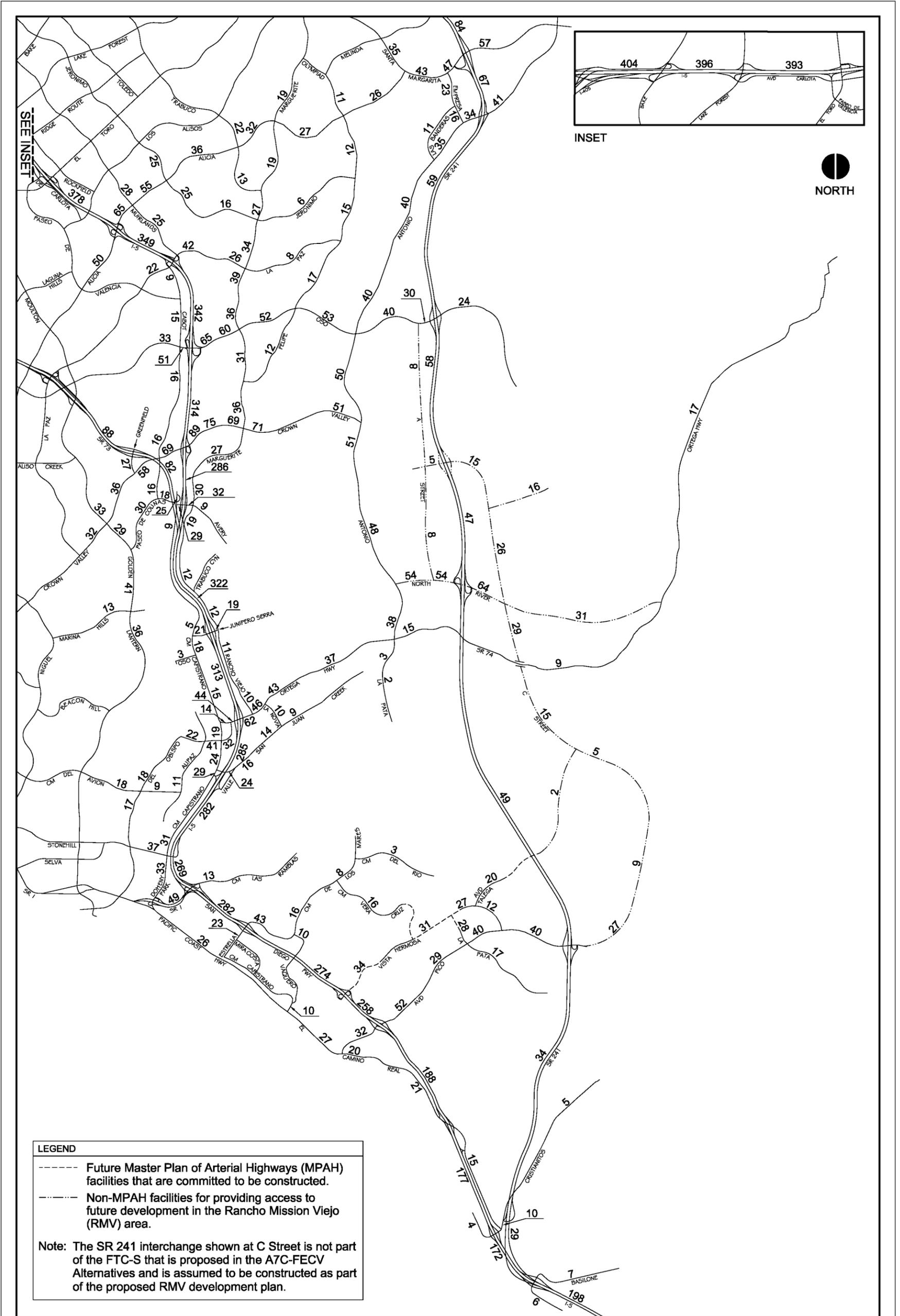
**2025 ADT Volumes (000s) - CC-OHV-Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)**



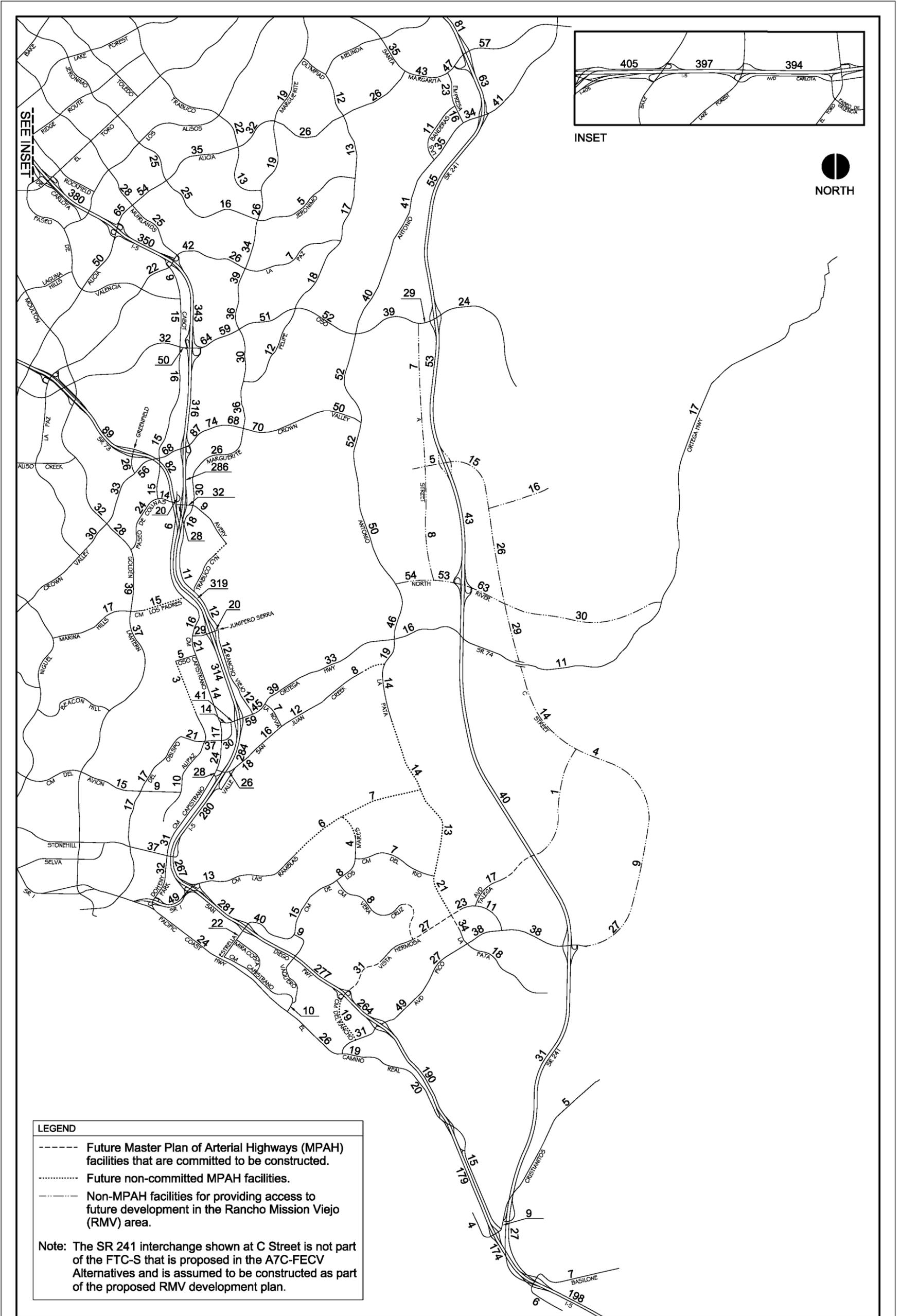
2025 ADT Volumes (000s) - A7C-Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)



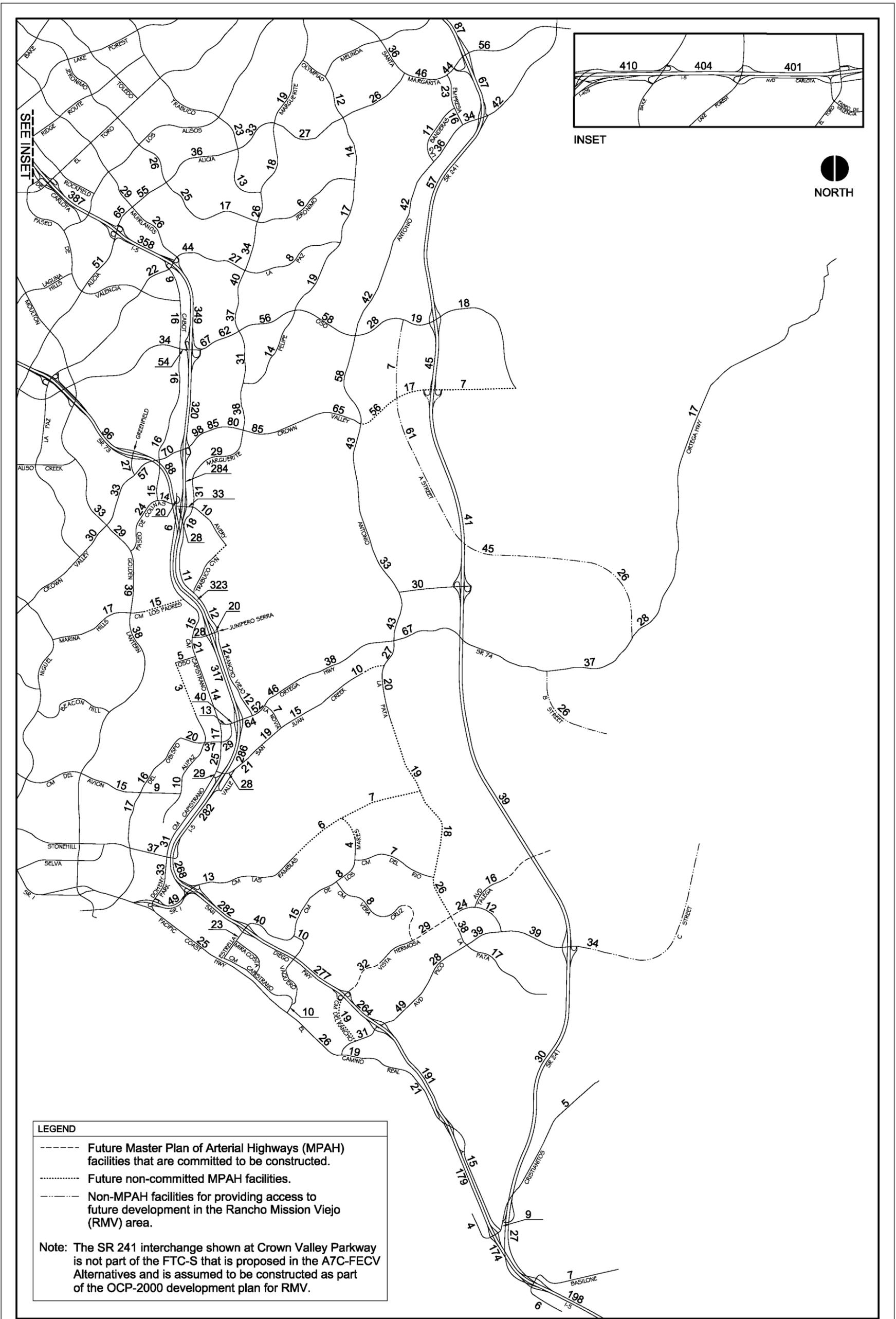
2025 ADT Volumes (000s) - A7C-Ultimate Alternative
(Buildout Toll-Free Circulation System with OCP-2000 for RMV)



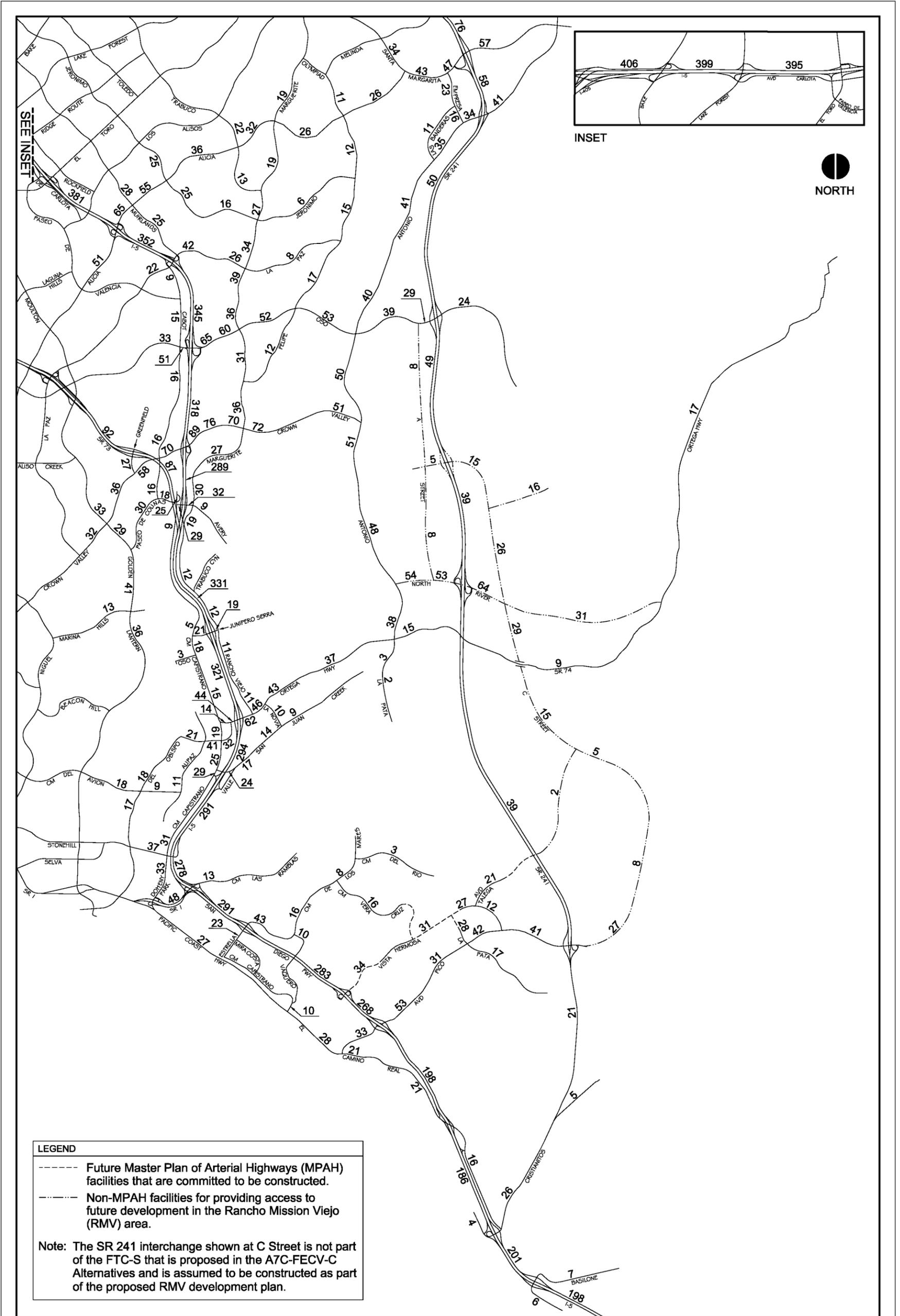
2025 ADT Volumes (000s) - A7C-FECV-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)



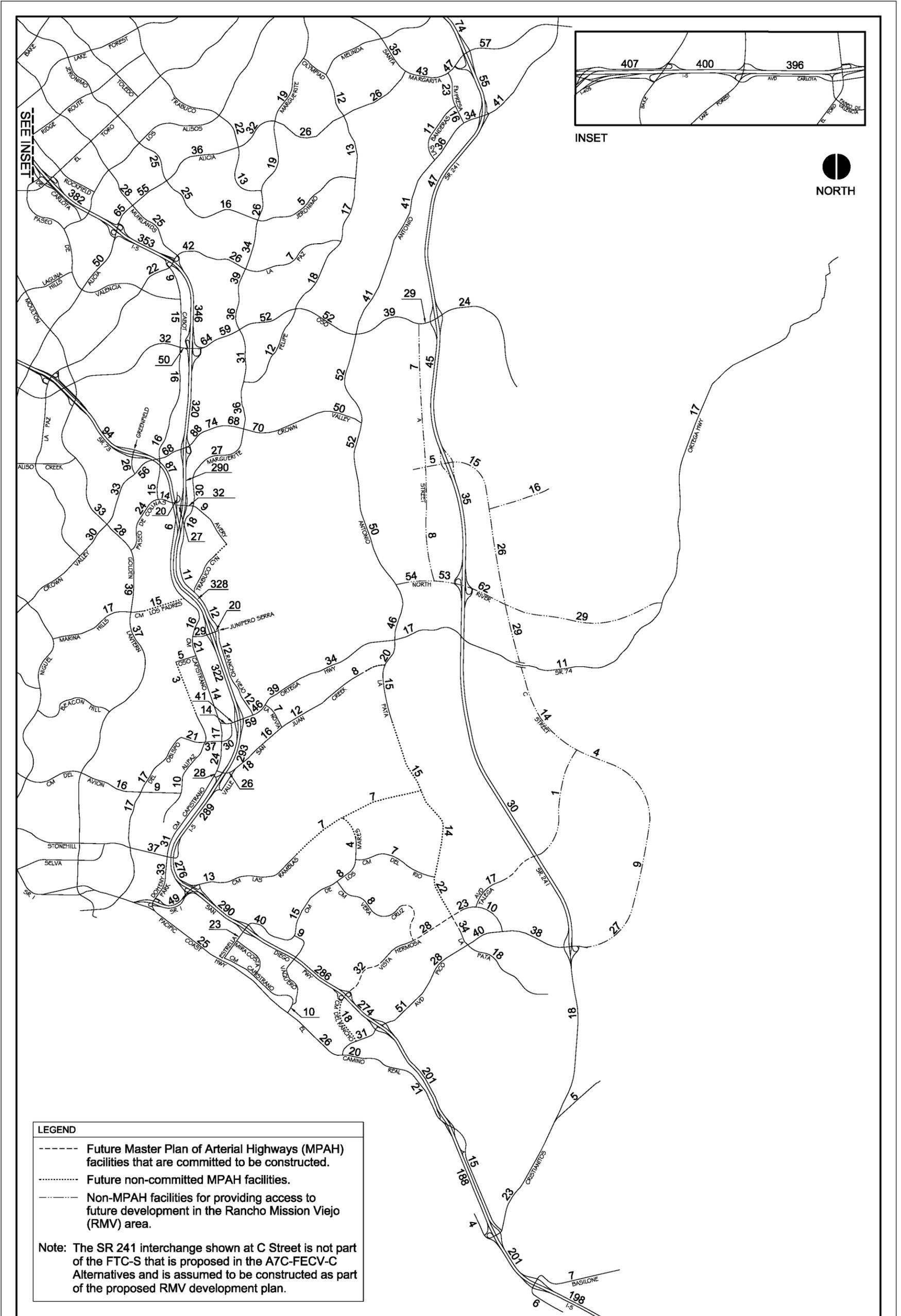
2025 ADT Volumes (000s) - A7C-FECV-Initial and Ultimate Alternatives
(Buildout Circulation System with Proposed RMV Plan)



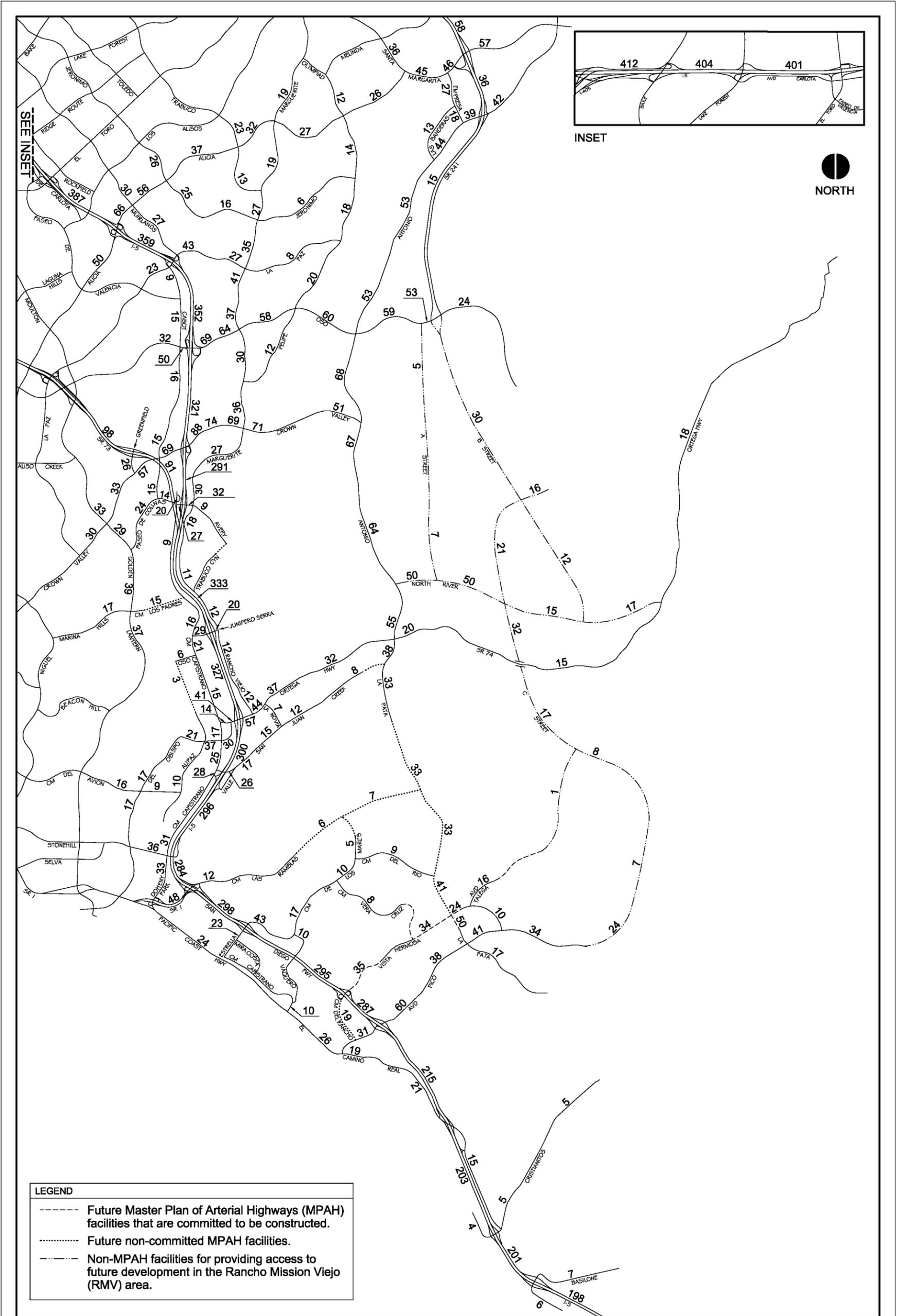
2025 ADT Volumes (000s) - A7C-FECV-Initial and Ultimate Alternatives
(Buildout Circulation System with OCP-2000 for RMV)



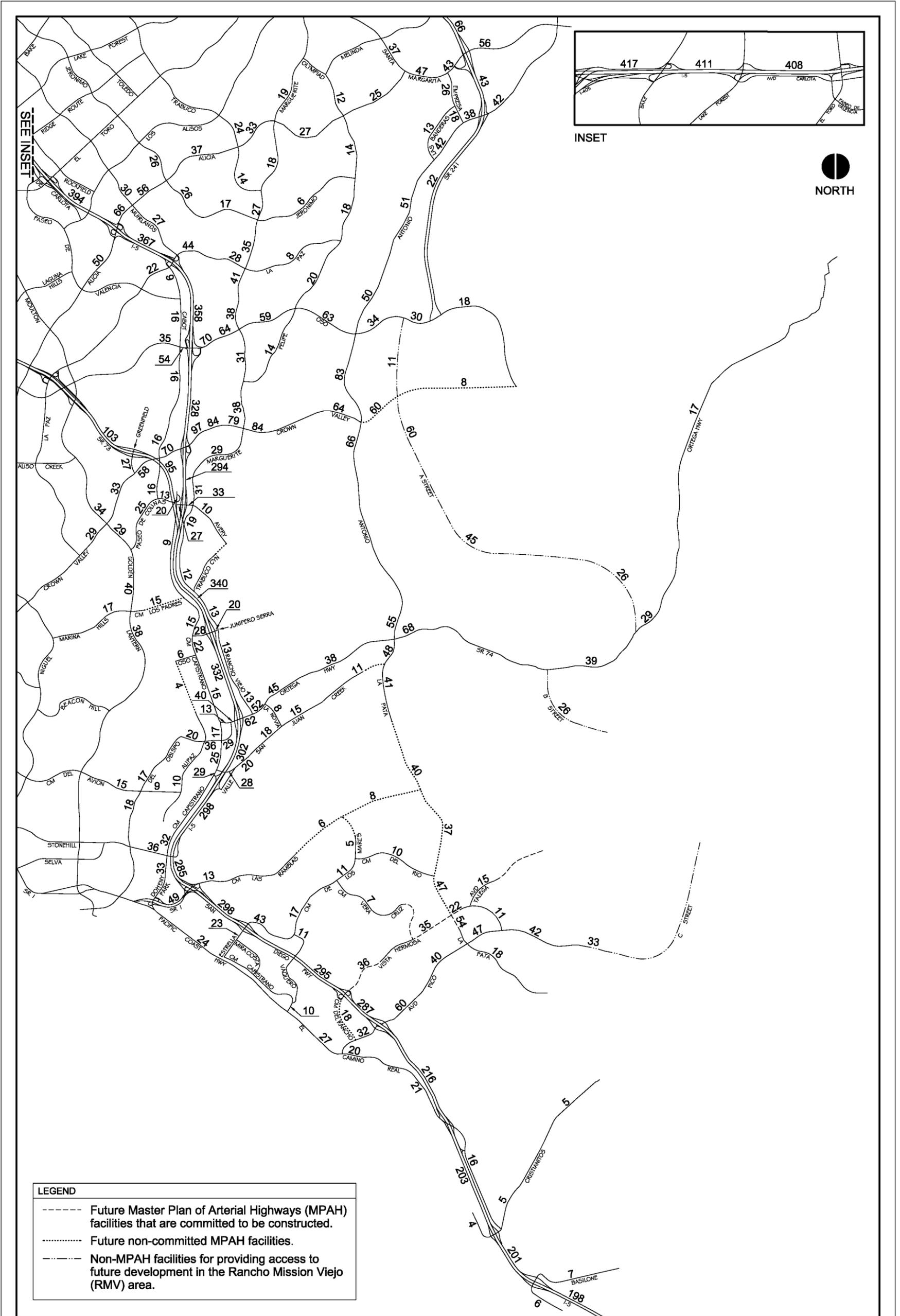
2025 ADT Volumes (000s) - A7C-FECV-C-Initial and Ultimate Alternatives
(Committed Circulation System with Proposed RMV Plan)



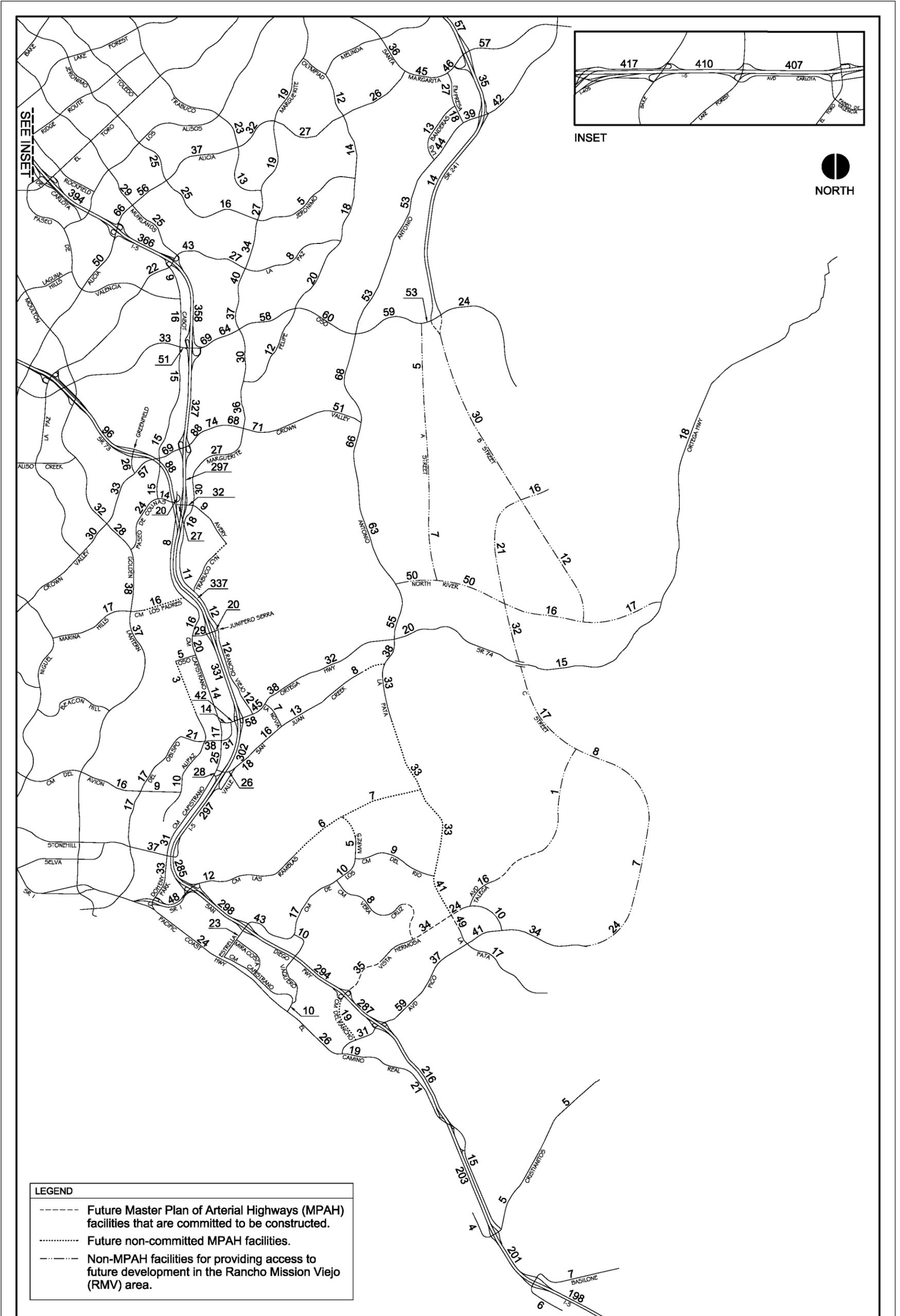
2025 ADT Volumes (000s) - A7C-FECV-C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)



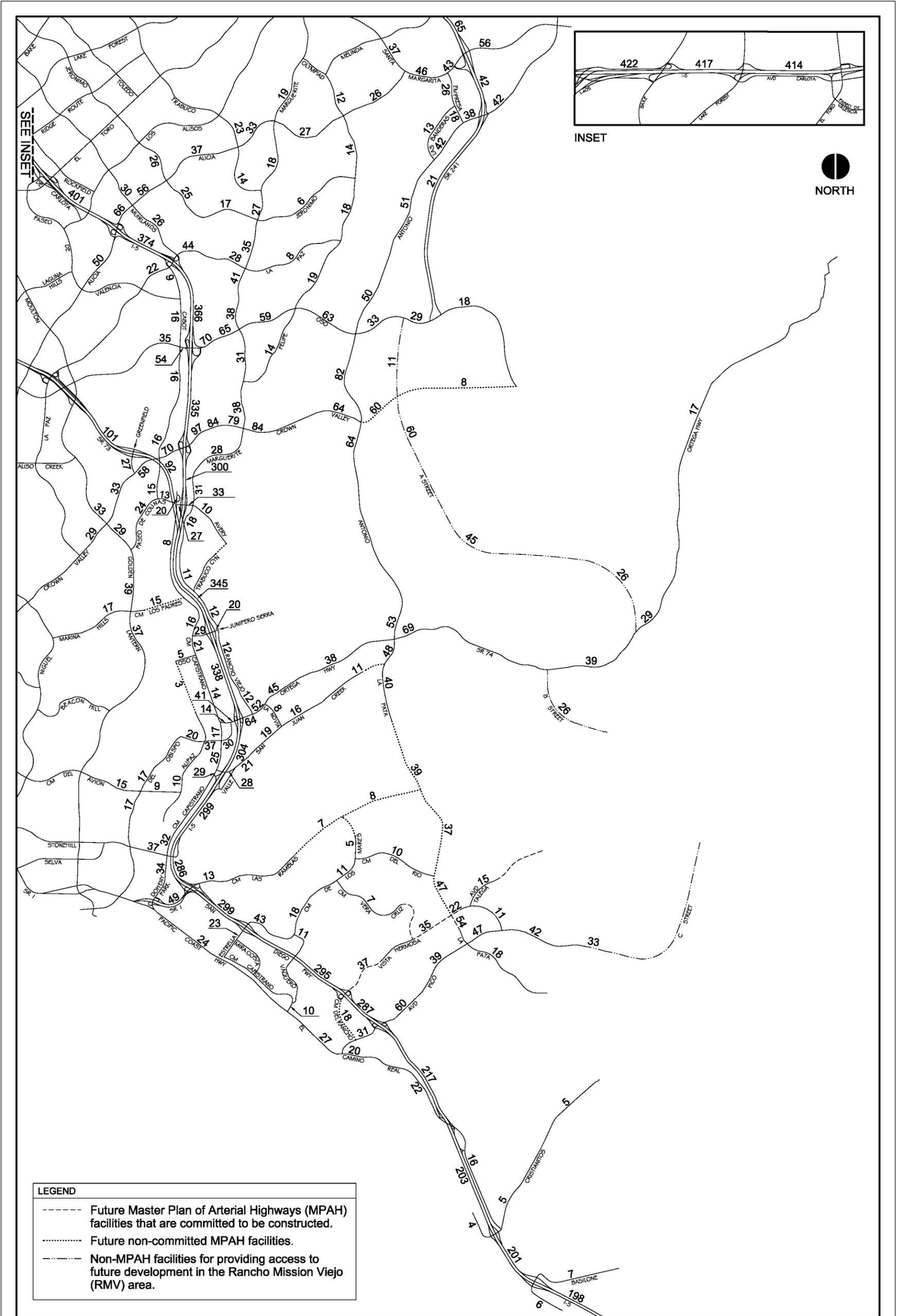
2025 ADT Volumes (000s) - AIO Alternative
(Buildout Circulation System with Proposed RMV Plan)



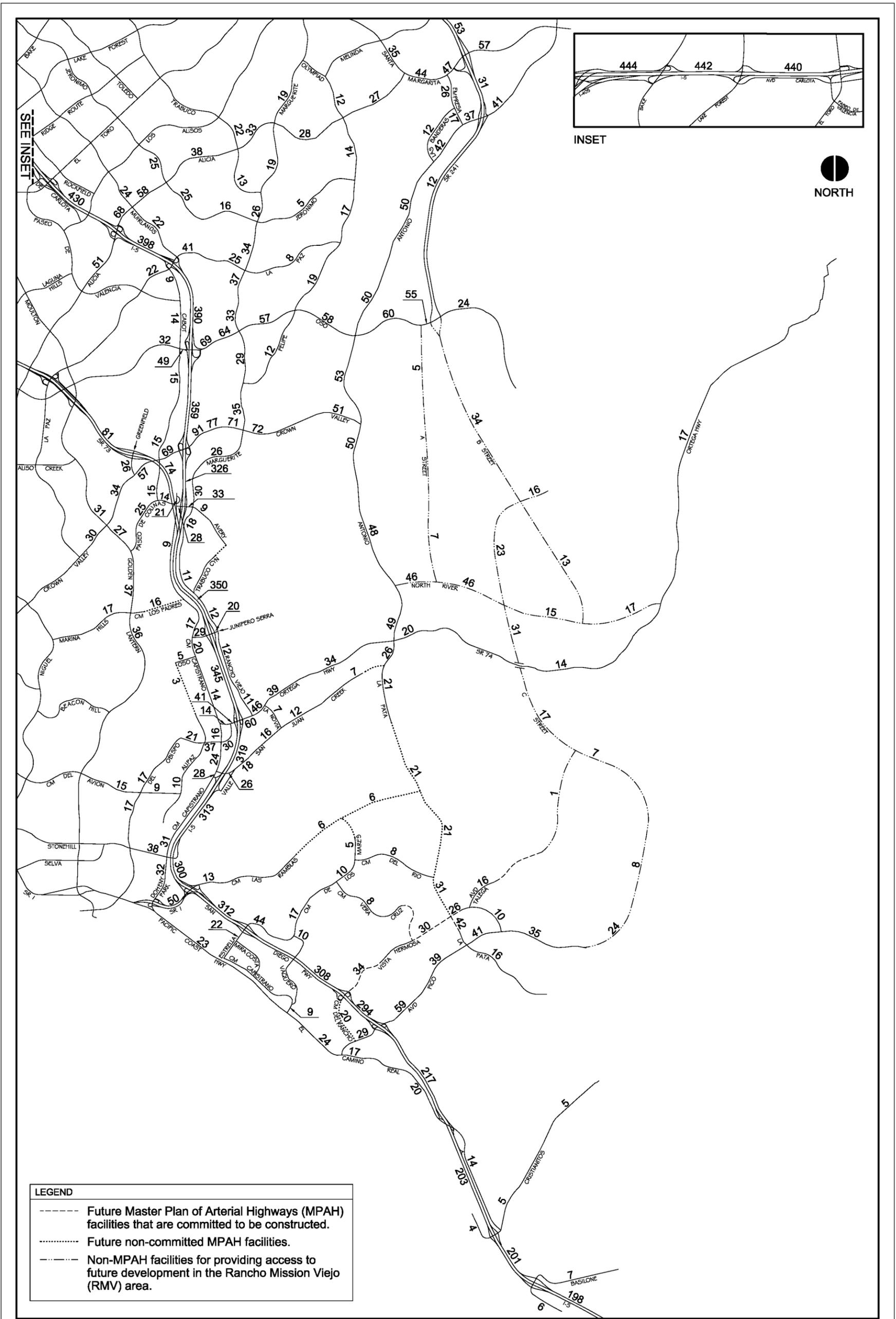
2025 ADT Volumes (000s) - AIO Alternative
(Buildout Circulation System with OCP-2000 for RMV)



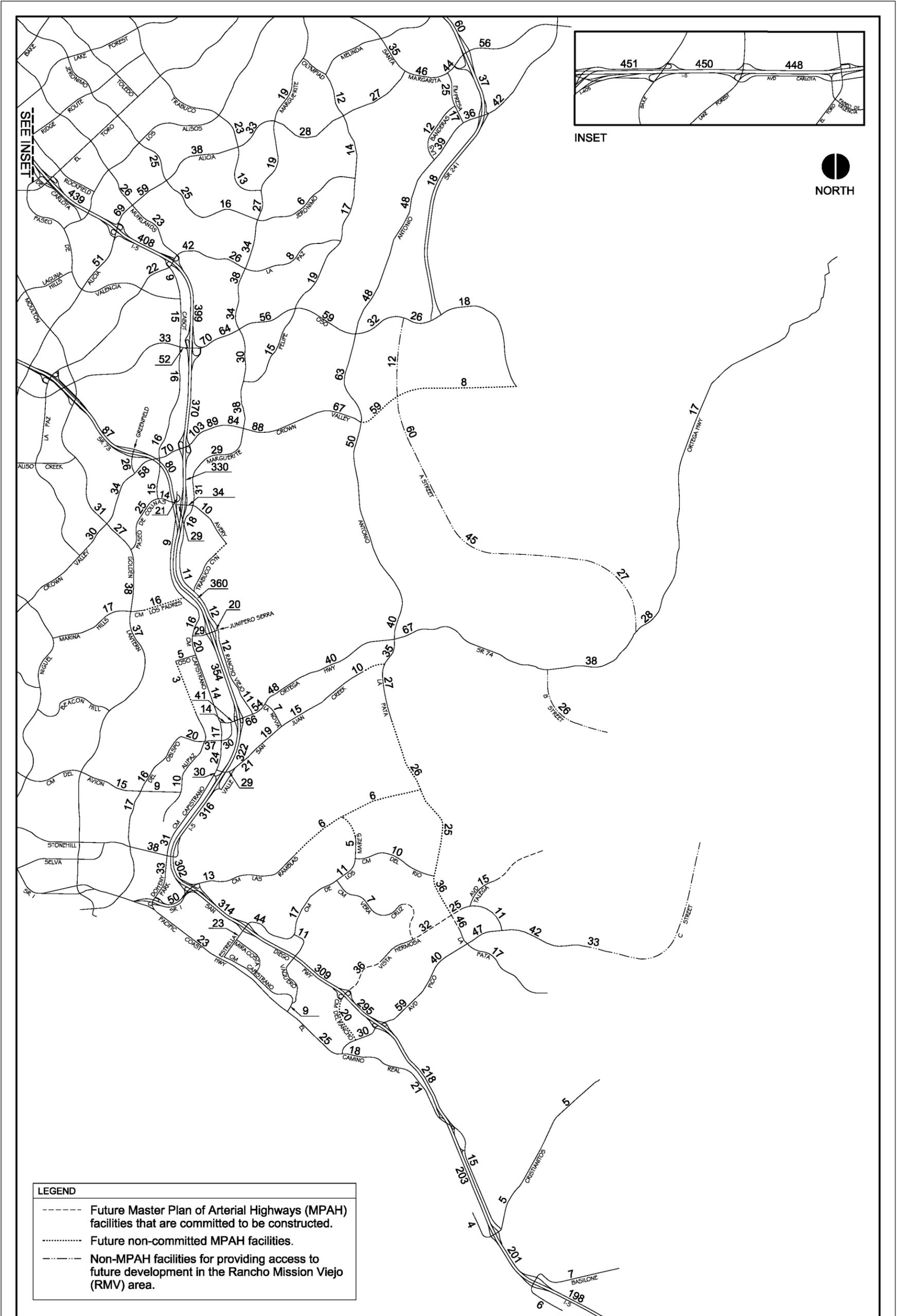
2025 ADT Volumes (000s) - AIP Alternative
(Buildout Circulation System with Proposed RMV Plan)



2025 ADT Volumes (000s) - AIP Alternative
(Buildout Circulation System with OCP-2000 for RMV)



2025 ADT Volumes (000s) - I-5 Alternative
(Buildout Circulation System with Proposed RMV Plan)



2025 ADT Volumes (000s) - I-5 Alternative
(Buildout Circulation System with OCP-2000 for RMV)

APPENDIX D
FREEWAY/TOLLWAY MAINLINE PEAK HOUR LOS
AND I-5 CONGESTION SUMMARIES

This appendix summarizes existing and long-range (year 2025) AM and PM peak hour V/C ratios and corresponding levels of service for freeway/tollway mainline segments in the SOCTIIP traffic analysis study area. Summaries of peak spreading and congested versus non-congested vehicle miles traveled (VMT) on I-5 under year 2025 conditions are also provided. The summary tables that are included in this appendix are listed below.

LIST OF TABLES

Table	Page
D-1 Existing Freeway/Tollway Mainline LOS Summary	D-6
D-2 2025 Freeway/Tollway Mainline LOS Summary – No Action Alternative (Committed Circulation System with Proposed RMV Plan).....	D-8
D-3 2025 Freeway/Tollway Mainline LOS Summary – No Action Alternative (Committed Circulation System with OCP-2000 for RMV).....	D-10
D-4 2025 Freeway/Tollway Mainline LOS Summary – No Action Alternative (Committed Circulation System with Existing General Plan for RMV).....	D-12
D-5 2025 Freeway/Tollway Mainline LOS Summary – No Action Alternative (Committed Circulation System with No Future Development in RMV).....	D-14
D-6 2025 Freeway/Tollway Mainline LOS Summary – No Action Alternative (Buildout Circulation System with Proposed RMV Plan).....	D-16
D-7 2025 Freeway/Tollway Mainline LOS Summary – No Action Alternative (Buildout Circulation System with OCP-2000 for RMV).....	D-18
D-8 2025 Freeway/Tollway Mainline LOS Summary – FEC-Initial and Ultimate (Committed Circulation System with Proposed RMV Plan).....	D-20
D-9 2025 Freeway/Tollway Mainline LOS Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	D-23
D-10 2025 Freeway/Tollway Mainline LOS Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	D-26
D-11 2025 Freeway/Tollway Mainline LOS Summary – FEC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	D-29
D-12 2025 Freeway/Tollway Mainline LOS Summary – FEC-TV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	D-32
D-13 2025 Freeway/Tollway Mainline LOS Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	D-35
D-14 2025 Freeway/Tollway Mainline LOS Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	D-38
D-15 2025 Freeway/Tollway Mainline LOS Summary – FEC-CV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	D-41
D-16 2025 Freeway/Tollway Mainline LOS Summary – FEC-CV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	D-44

LIST OF TABLES (cont)

Table	Page
D-17	2025 Freeway/Tollway Mainline LOS Summary – FEC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan) D-47
D-18	2025 Freeway/Tollway Mainline LOS Summary – FEC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan) D-50
D-19	2025 Freeway/Tollway Mainline LOS Summary – FEC-APV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan) D-53
D-20	2025 Freeway/Tollway Mainline LOS Summary – FEC-APV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan) D-56
D-21	2025 Freeway/Tollway Mainline LOS Summary – CC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan) D-59
D-22	2025 Freeway/Tollway Mainline LOS Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan) D-62
D-23	2025 Freeway/Tollway Mainline LOS Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV) D-65
D-24	2025 Freeway/Tollway Mainline LOS Summary – CC-Ultimate Alternatives (Buildout Toll-Free Circulation System with OCP-2000 for RMV)..... D-68
D-25	2025 Freeway/Tollway Mainline LOS Summary – CC-ALPV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan) D-71
D-26	2025 Freeway/Tollway Mainline LOS Summary – CC-ALPV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan) D-74
D-27	2025 Freeway/Tollway Mainline LOS Summary – CC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan) D-77
D-28	2025 Freeway/Tollway Mainline LOS Summary – CC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan) D-80
D-29	2025 Freeway/Tollway Mainline LOS Summary – A7C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan) D-83
D-30	2025 Freeway/Tollway Mainline LOS Summary – A7C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan) D-86
D-31	2025 Freeway/Tollway Mainline LOS Summary – A7C-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV) D-89
D-32	2025 Freeway/Tollway Mainline LOS Summary – A7C-FECV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan) D-92
D-33	2025 Freeway/Tollway Mainline LOS Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan) D-95
D-34	2025 Freeway/Tollway Mainline LOS Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV) D-98
D-35	2025 Freeway/Tollway Mainline LOS Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan) D-101
D-36	2025 Freeway/Tollway Mainline LOS Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan) D-104
D-37	2025 Freeway/Tollway Mainline LOS Summary – AIO Alternative (Buildout Circulation System with Proposed RMV Plan) D-107

LIST OF TABLES (cont)

Table	Page
D-38 2025 Freeway/Tollway Mainline LOS Summary – AIO Alternative (Buildout Circulation System with OCP-2000 for RMV).....	D-109
D-39 2025 Freeway/Tollway Mainline LOS Summary – AIP Alternative (Buildout Circulation System with Proposed RMV Plan)	D-111
D-40 2025 Freeway/Tollway Mainline LOS Summary – AIP Alternative (Buildout Circulation System with OCP-2000 for RMV).....	D-113
D-41 2025 Freeway/Tollway Mainline LOS Summary – I-5 Alternative (Committed Circulation System with Proposed RMV Plan)	D-115
D-42 2025 Freeway/Tollway Mainline LOS Summary – I-5 Alternative (Buildout Circulation System with Proposed RMV Plan)	D-117
D-43 2025 Freeway/Tollway Mainline LOS Summary – I-5 Alternative (Buildout Circulation System with OCP-2000 for RMV).....	D-119
D-44 Existing I-5 Congestion Summary	D-121
D-45 2025 I-5 Congestion Summary – No Action Alternative (Committed Circulation System with Proposed RMV Plan).....	D-122
D-46 2025 I-5 Congestion Summary – No Action Alternative (Committed Circulation System with OCP-2000 for RMV).....	D-123
D-47 2025 I-5 Congestion Summary – No Action Alternative (Committed Circulation System with Existing General Plan for RMV).....	D-124
D-48 2025 I-5 Congestion Summary – No Action Alternative (Committed Circulation System with No Future Development in RMV).....	D-125
D-49 2025 I-5 Congestion Summary – No Action Alternative (Buildout Circulation System with Proposed RMV Plan).....	D-126
D-50 2025 I-5 Congestion Summary – No Action Alternative (Buildout Circulation System with OCP-2000 for RMV).....	D-127
D-51 2025 I-5 Congestion Summary – FEC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	D-128
D-52 2025 I-5 Congestion Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	D-129
D-53 2025 I-5 Congestion Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	D-130
D-54 2025 I-5 Congestion Summary – FEC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	D-131
D-55 2025 I-5 Congestion Summary – FEC-TV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	D-132
D-56 2025 I-5 Congestion Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	D-133
D-57 2025 I-5 Congestion Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	D-134
D-58 2025 I-5 Congestion Summary – FEC-CV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	D-135

LIST OF TABLES (cont)

Table	Page
D-59	2025 I-5 Congestion Summary – FEC-CV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... D-136
D-60	2025 I-5 Congestion Summary – FEC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... D-137
D-61	2025 I-5 Congestion Summary – FEC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... D-138
D-62	2025 I-5 Congestion Summary – FEC-APV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... D-139
D-63	2025 I-5 Congestion Summary – FEC-APV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... D-140
D-64	2025 I-5 Congestion Summary – CC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... D-141
D-65	2025 I-5 Congestion Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... D-142
D-66	2025 I-5 Congestion Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)..... D-143
D-67	2025 I-5 Congestion Summary – CC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV) D-144
D-68	2025 I-5 Congestion Summary – CC-ALPV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... D-145
D-69	2025 I-5 Congestion Summary – CC-ALPV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... D-146
D-70	2025 I-5 Congestion Summary – CC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... D-147
D-71	2025 I-5 Congestion Summary – CC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... D-148
D-72	2025 I-5 Congestion Summary – A7C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... D-149
D-73	2025 I-5 Congestion Summary – A7C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... D-150
D-74	2025 I-5 Congestion Summary – A7C-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV) D-151
D-75	2025 I-5 Congestion Summary – A7C-FECV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... D-152
D-76	2025 I-5 Congestion Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... D-153
D-77	2025 I-5 Congestion Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)..... D-154
D-78	2025 I-5 Congestion Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)..... D-155
D-79	2025 I-5 Congestion Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)..... D-156

LIST OF TABLES (cont)

<u>Table</u>	<u>Page</u>
D-80 2025 I-5 Congestion Summary – AIO Alternative (Buildout Circulation System with Proposed RMV Plan)	D-157
D-81 2025 I-5 Congestion Summary – AIO Alternative (Buildout Circulation System with OCP-2000 for RMV).....	D-158
D-82 2025 I-5 Congestion Summary – AIP Alternative (Buildout Circulation System with Proposed RMV Plan)	D-159
D-83 2025 I-5 Congestion Summary – AIP Alternative (Buildout Circulation System with OCP-2000 for RMV).....	D-160
D-84 2025 I-5 Congestion Summary – I-5 Alternative (Committed Circulation System with Proposed RMV Plan)	D-161
D-85 2025 I-5 Congestion Summary – I-5 Alternative (Buildout Circulation System with Proposed RMV Plan)	D-162
D-86 2025 I-5 Congestion Summary – I-5 Alternative (Buildout Circulation System with OCP-2000 for RMV).....	D-163

Table D-1
EXISTING FREEWAY/TOLLWAY MAINLINE LOS SUMMARY

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	16,500	.77	21,500	13,050	.61	C
I-5 n/o Lake Forest	Northbound	8+2H	19,500	14,300	.73	19,500	10,350	.53	C
I-5 n/o El Toro	Northbound	6+2H	15,500	13,520	.87	15,500	10,010	.65	C
I-5 n/o Alicia	Northbound	4+1H+1A	10,600	12,250	1.16	9,600	9,290	.97	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,100	10,600	1.05	9,600	8,900	.93	E
I-5 n/o Oso	Northbound	4+1H	9,600	10,070	1.05	9,600	8,950	.93	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,840	.83	9,600	8,740	.91	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	8,130	.85	9,600	7,460	.78	D
I-5 n/o SR 73	Northbound	4+1H	9,600	8,230	.86	9,600	7,350	.77	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	10,520	.77	13,600	8,950	.66	C
I-5 n/o Ortega	Northbound	5+1H	11,600	10,040	.87	11,600	8,550	.74	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	9,620	1.00	9,600	7,850	.82	D
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,640	1.00	9,600	8,080	.84	D
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	8,450	.88	9,600	6,950	.72	D
I-5 n/o Estrella	Northbound	4+1A	8,500	7,940	.93	8,500	6,890	.81	D
I-5 n/o Pico	Northbound	4	8,000	6,710	.84	8,000	6,130	.77	D
I-5 n/o El Camino Real	Northbound	4	8,000	5,760	.72	8,000	5,110	.64	C
I-5 n/o Cristianitos	Northbound	4	8,000	4,060	.51	8,000	4,070	.51	C
I-5 s/o Cristianitos	Northbound	4	8,000	3,750	.47	8,000	3,810	.48	B
I-5 n/o Basilone	Northbound	4	8,000	3,750	.47	8,000	3,810	.48	B
I-5 s/o Basilone	Northbound	4	8,000	3,830	.48	8,000	3,360	.42	B
SR 73 n/o Greenfield	Northbound	3	6,000	2,860	.48	6,000	1,540	.26	A
SR 73 n/o I-5	Northbound	3	6,000	2,290	.38	6,000	1,600	.27	A
SR 241 n/o Santa Margarita	Northbound	3	6,000	4,600	.77	6,000	1,180	.20	A
SR 241 n/o Antonio	Northbound	3	6,000	2,140	.36	6,000	360	.06	A
SR 241 n/o Oso	Northbound	2	4,000	610	.15	4,000	190	.05	A

Table D-1 (cont)
EXISTING FREEWAY/TOLLWAY MAINLINE LOS SUMMARY

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	12,710	.59	21,500	15,380	.72	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	10,230	.52	19,500	13,660	.70	C
I-5 n/o El Toro	Southbound	6+2H	15,500	8,880	.57	15,500	12,210	.79	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	8,350	.87	10,600	12,040	1.14	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	7,400	.77	10,100	10,670	1.06	F
I-5 n/o Oso	Southbound	4+1H	9,600	7,210	.75	9,600	10,170	1.06	F
I-5 n/o Crown Valley	Southbound	4+1H	9,600	7,390	.77	9,600	9,570	1.00	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,230	.65	10,600	8,310	.78	D
I-5 n/o SR 73	Southbound	4+1H	9,600	5,880	.61	9,600	7,770	.81	D
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	7,360	.54	13,600	10,270	.76	D
I-5 n/o Ortega	Southbound	5+1H	11,600	7,070	.61	11,600	9,870	.85	D
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	6,010	.63	9,600	8,540	.89	D
I-5 n/o Stonehill	Southbound	4+1H	9,600	5,810	.61	9,600	7,960	.83	D
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	5,810	.61	9,600	7,960	.83	D
I-5 n/o Estrella	Southbound	4+1A	8,000	6,150	.77	8,000	7,830	.98	E
I-5 n/o Pico	Southbound	4	8,000	5,480	.69	8,000	6,830	.85	D
I-5 n/o El Camino Real	Southbound	4	8,000	4,220	.53	8,000	6,080	.76	D
I-5 n/o Cristianitos	Southbound	4	8,000	3,410	.43	8,000	4,400	.55	C
I-5 s/o Cristianitos	Southbound	4	8,000	3,210	.40	8,000	4,070	.51	C
I-5 n/o Basitone	Southbound	4	8,000	3,210	.40	8,000	4,070	.51	C
I-5 s/o Basitone	Southbound	4	8,000	2,890	.36	8,000	4,130	.52	C
SR 73 n/o Greenfield	Southbound	4	8,000	1,310	.16	8,000	2,870	.36	B
SR 73 n/o I-5	Southbound	3	6,000	1,480	.25	6,000	2,500	.42	B
SR 241 n/o Santa Margarita	Southbound	2	4,000	890	.22	4,000	2,720	.68	C
SR 241 n/o Antonio	Southbound	3	6,000	330	.06	6,000	1,030	.17	A
SR 241 n/o Oso	Southbound	2	4,000	170	.04	4,000	330	.08	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-2

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,250	.85	21,500	16,090	.75	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,300	.89	19,500	13,920	.71	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,660	1.08	15,500	12,650	.82	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	13,140	1.04	11,600	10,600	.91	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,860	1.02	9,600	9,760	1.02	F
I-5 n/o Oso	Northbound	4+1H	9,600	10,550	1.10	9,600	9,720	1.01	F
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,270	.87	9,600	9,170	.96	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,760	.81	9,600	7,670	.80	D
I-5 n/o SR 73	Northbound	4+1H	9,600	7,560	.79	9,600	7,200	.75	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	13,410	.99	13,600	11,970	.88	D
I-5 n/o Ortega	Northbound	5+1H	11,600	12,440	1.07	11,600	11,070	.95	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	11,690	1.22	9,600	10,570	1.10	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	11,610	1.21	9,600	10,790	1.12	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	10,810	1.13	9,600	9,850	1.03	F
I-5 n/o Estrella	Northbound	4+1A	8,500	11,320	1.33	8,500	10,460	1.23	F
I-5 n/o Hermosa	Northbound	4	8,000	10,150	1.27	8,000	9,950	1.24	F
I-5 n/o Pico	Northbound	4+1A	9,000	9,510	1.06	9,000	9,360	1.04	F
I-5 n/o El Camino Real	Northbound	4	8,000	9,590	1.20	8,000	10,060	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,570	.68	9,600	5,060	.53	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,850	.61	9,600	4,770	.50	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	6,640	.69	9,600	2,380	.25	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	4,260	.56	7,600	1,380	.18	A
SR 241 n/o Oso	Northbound	3+1H	7,600	2,360	.31	7,600	580	.08	A

Table D-2 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	14,740	.69	21,500	17,520	.81	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,750	.65	19,500	15,590	.80	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,960	.71	15,500	14,630	.94	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,630	1.00	10,600	12,810	1.21	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,890	.93	10,600	11,110	1.05	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,600	.90	9,600	10,150	1.06	F
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,650	.90	9,600	9,540	.99	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,430	.77	9,600	7,750	.81	D
I-5 n/o SR 73	Southbound	4+1H	9,600	7,080	.74	9,600	7,320	.76	D
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	10,270	.76	13,600	13,360	.98	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,730	.84	11,600	12,520	1.08	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	9,050	.94	9,600	11,640	1.21	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	8,790	.92	9,600	11,500	1.20	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	8,790	.92	9,600	11,500	1.20	F
I-5 n/o Estrella	Southbound	4+1A	8,000	9,020	1.13	8,000	11,830	1.48	F
I-5 n/o Hermosa	Southbound	4	8,000	8,610	1.08	8,000	10,880	1.36	F
I-5 n/o Pico	Southbound	4+1A	9,000	8,040	.89	9,000	10,010	1.11	F
I-5 n/o El Camino Real	Southbound	4	8,000	8,090	1.01	8,000	10,820	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,460	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basitone	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 s/o Basitone	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,480	.36	9,600	6,710	.70	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,190	.33	9,600	6,040	.63	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,500	.16	9,600	5,160	.54	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	920	.12	7,600	3,570	.47	B
SR 241 n/o Oso	Southbound	3+1H	7,600	490	.06	7,600	1,910	.25	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-3

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,660	.87	21,500	16,190	.75	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,640	.90	19,500	14,060	.72	D
I-5 n/o El Toro	Northbound	6+1H	13,600	15,160	1.11	15,500	12,830	.83	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	13,520	1.07	11,600	10,760	.93	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	11,240	1.06	9,600	9,910	1.03	F
I-5 n/o Oso	Northbound	4+1H	9,600	10,840	1.13	9,600	9,900	1.03	F
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,450	.89	9,600	9,510	.99	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	8,090	.84	9,600	8,210	.86	D
I-5 n/o SR 73	Northbound	4+1H	9,600	7,940	.83	9,600	7,770	.81	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	14,190	1.04	13,600	12,540	.92	E
I-5 n/o Ortega	Northbound	5+1H	11,600	12,940	1.12	11,600	11,640	1.00	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	12,050	1.26	9,600	11,230	1.17	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	12,350	1.29	9,600	11,940	1.24	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	11,560	1.20	9,600	11,070	1.15	F
I-5 n/o Estrella	Northbound	4+1A	8,500	11,790	1.39	8,500	11,660	1.37	F
I-5 n/o Hermosa	Northbound	4	8,000	10,530	1.32	8,000	11,000	1.38	F
I-5 n/o Pico	Northbound	4+1A	9,000	9,600	1.07	9,000	9,830	1.09	F
I-5 n/o El Camino Real	Northbound	4	8,000	9,590	1.20	8,000	10,090	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,870	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	7,010	.73	9,600	5,180	.54	C
SR 73 n/o I-5	Northbound	4+1H	9,600	6,250	.65	9,600	4,770	.50	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	7,830	.82	9,600	2,610	.27	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	5,280	.69	7,600	1,560	.21	A
SR 241 n/o Oso	Northbound	3+1H	7,600	3,290	.43	7,600	750	.10	A

Table D-3 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	14,550	.68	21,500	17,870	.83	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,720	.65	19,500	15,840	.81	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,960	.71	15,500	14,980	.97	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,630	1.00	10,600	13,140	1.24	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,940	.93	10,600	11,370	1.07	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,710	.91	9,600	10,400	1.08	F
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,860	.92	9,600	9,910	1.03	F
I-5 n/o Avery	Southbound	4+1H+1A	9,600	8,000	.83	9,600	8,320	.87	D
I-5 n/o SR 73	Southbound	4+1H	9,600	7,740	.81	9,600	7,880	.82	D
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	10,930	.80	13,600	14,310	1.05	F
I-5 n/o Ortega	Southbound	5+1H	11,600	10,340	.89	11,600	13,270	1.14	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	10,120	1.05	9,600	12,360	1.29	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	10,070	1.05	9,600	12,390	1.29	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	10,070	1.05	9,600	12,390	1.29	F
I-5 n/o Estrella	Southbound	4+1A	8,000	10,210	1.28	8,000	12,610	1.58	F
I-5 n/o Hermosa	Southbound	4	8,000	9,520	1.19	8,000	11,560	1.45	F
I-5 n/o Pico	Southbound	4+1A	9,000	8,260	.92	9,000	10,280	1.14	F
I-5 n/o El Camino Real	Southbound	4	8,000	8,130	1.02	8,000	10,860	1.36	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,120	.77	8,000	7,440	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,080	.76	8,000	7,560	.95	E
I-5 n/o Basiline	Southbound	4	8,000	6,080	.76	8,000	7,560	.95	E
I-5 s/o Basiline	Southbound	4	8,000	5,760	.72	8,000	7,620	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,520	.37	9,600	7,190	.75	D
SR 73 n/o I-5	Southbound	4+1H	9,600	3,190	.33	9,600	6,430	.67	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,550	.16	9,600	6,050	.63	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	980	.13	7,600	4,270	.56	C
SR 241 n/o Oso	Southbound	3+1H	7,600	600	.08	7,600	2,450	.32	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-4

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,050	.84	21,500	16,000	.74	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,150	.88	19,500	13,810	.71	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,500	1.07	15,500	12,580	.81	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,940	1.03	11,600	10,560	.91	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,640	1.00	9,600	9,680	1.01	F
I-5 n/o Oso	Northbound	4+1H	9,600	10,390	1.08	9,600	9,620	1.00	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,270	.87	9,600	9,200	.96	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,730	.81	9,600	7,840	.82	D
I-5 n/o SR 73	Northbound	4+1H	9,600	7,550	.79	9,600	7,480	.78	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	13,150	.97	13,600	12,070	.89	D
I-5 n/o Ortega	Northbound	5+1H	11,600	12,210	1.05	11,600	11,160	.96	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	11,590	1.21	9,600	10,790	1.12	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	11,600	1.21	9,600	11,100	1.16	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	10,820	1.13	9,600	10,200	1.06	F
I-5 n/o Estrella	Northbound	4+1A	8,500	11,300	1.33	8,500	10,970	1.29	F
I-5 n/o Hermosa	Northbound	4	8,000	10,120	1.27	8,000	10,380	1.30	F
I-5 n/o Pico	Northbound	4+1A	9,000	9,400	1.04	9,000	9,570	1.06	F
I-5 n/o El Camino Real	Northbound	4	8,000	9,540	1.19	8,000	10,010	1.25	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,870	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,230	.65	9,600	4,890	.51	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,600	.58	9,600	4,600	.48	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	6,100	.64	9,600	2,260	.24	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	3,710	.49	7,600	1,300	.17	A
SR 241 n/o Oso	Northbound	3+1H	7,600	1,730	.23	7,600	570	.08	A

Table D-4 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	14,610	.68	21,500	17,550	.82	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,680	.65	19,500	15,360	.79	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,880	.70	15,500	14,410	.93	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,560	1.00	10,600	12,620	1.19	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,810	.92	10,600	11,130	1.05	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,500	.89	9,600	10,110	1.05	F
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,660	.90	9,600	9,620	1.00	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,630	.79	9,600	7,870	.82	D
I-5 n/o SR 73	Southbound	4+1H	9,600	7,310	.76	9,600	7,520	.78	D
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	10,320	.76	13,600	13,170	.97	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,780	.84	11,600	12,430	1.07	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	9,400	.98	9,600	11,740	1.22	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	9,240	.96	9,600	11,630	1.21	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	9,240	.96	9,600	11,630	1.21	F
I-5 n/o Estrella	Southbound	4+1A	8,000	9,510	1.19	8,000	12,020	1.50	F
I-5 n/o Hermosa	Southbound	4	8,000	8,940	1.12	8,000	11,030	1.38	F
I-5 n/o Pico	Southbound	4+1A	9,000	8,120	.90	9,000	10,090	1.12	F
I-5 n/o El Camino Real	Southbound	4	8,000	8,060	1.01	8,000	10,780	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,120	.77	8,000	7,440	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,090	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4	8,000	6,090	.76	8,000	7,550	.94	E
I-5 s/o Basiline	Southbound	4	8,000	5,770	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,300	.34	9,600	6,340	.66	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,020	.31	9,600	5,650	.59	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,430	.15	9,600	4,740	.49	B
SR 241 n/o Antonio	Southbound	3+1H	7,600	860	.11	7,600	3,140	.41	B
SR 241 n/o Oso	Southbound	3+1H	7,600	520	.07	7,600	1,490	.20	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-5

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH NO FUTURE DEVELOPMENT IN RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,670	.82	21,500	16,010	.74	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,800	.86	19,500	13,820	.71	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,140	1.04	15,500	12,460	.80	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,560	1.00	11,600	10,500	.91	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,350	.98	9,600	9,580	1.00	E
I-5 n/o Oso	Northbound	4+1H	9,600	10,120	1.05	9,600	9,540	.99	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,070	.86	9,600	9,130	.95	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,500	.78	9,600	7,710	.80	D
I-5 n/o SR 73	Northbound	4+1H	9,600	7,350	.77	9,600	7,280	.76	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,730	.94	13,600	11,790	.87	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,840	1.02	11,600	10,960	.94	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	11,460	1.19	9,600	10,700	1.11	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	11,400	1.19	9,600	11,060	1.15	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	10,630	1.11	9,600	10,200	1.06	F
I-5 n/o Estrella	Northbound	4+1A	8,500	11,120	1.31	8,500	10,870	1.28	F
I-5 n/o Hermosa	Northbound	4	8,000	9,950	1.24	8,000	10,310	1.29	F
I-5 n/o Pico	Northbound	4+1A	9,000	9,230	1.03	9,000	9,500	1.06	F
I-5 n/o El Camino Real	Northbound	4	8,000	9,540	1.19	8,000	9,980	1.25	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,870	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,960	.62	9,600	4,770	.50	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,380	.56	9,600	4,510	.47	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	5,400	.56	9,600	2,200	.23	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	3,090	.41	7,600	1,240	.16	A
SR 241 n/o Oso	Northbound	3+1H	7,600	1,260	.17	7,600	580	.08	A

Table D-5 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH NO FUTURE DEVELOPMENT IN RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	14,800	.69	21,500	17,240	.80	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,770	.65	19,500	15,510	.80	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,890	.70	15,500	14,420	.93	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,550	.99	10,600	12,590	1.19	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,800	.92	10,600	10,820	1.02	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,490	.88	9,600	9,930	1.03	F
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,660	.90	9,600	9,370	.98	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,560	.79	9,600	7,600	.79	D
I-5 n/o SR 73	Southbound	4+1H	9,600	7,140	.74	9,600	7,280	.76	D
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	10,230	.75	13,600	12,740	.94	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,690	.84	11,600	12,110	1.04	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	9,350	.97	9,600	11,510	1.20	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	9,180	.96	9,600	11,340	1.18	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	9,180	.96	9,600	11,340	1.18	F
I-5 n/o Estrella	Southbound	4+1A	8,000	9,490	1.19	8,000	11,790	1.47	F
I-5 n/o Hermosa	Southbound	4	8,000	8,960	1.12	8,000	10,830	1.35	F
I-5 n/o Pico	Southbound	4+1A	9,000	8,120	.90	9,000	9,920	1.10	F
I-5 n/o El Camino Real	Southbound	4	8,000	8,110	1.01	8,000	10,710	1.34	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,170	.77	8,000	7,400	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,520	.94	E
I-5 n/o Basiline	Southbound	4	8,000	6,140	.77	8,000	7,520	.94	E
I-5 s/o Basiline	Southbound	4	8,000	5,820	.73	8,000	7,580	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,370	.35	9,600	6,050	.63	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,090	.32	9,600	5,460	.57	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,430	.15	9,600	4,240	.44	B
SR 241 n/o Antonio	Southbound	3+1H	7,600	870	.11	7,600	2,680	.35	B
SR 241 n/o Oso	Southbound	3+1H	7,600	540	.07	7,600	1,110	.15	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-6

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,210	.85	21,500	16,150	.75	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,240	.88	19,500	13,980	.72	D
I-5 n/o El Toro	Northbound	6+1H	13,600	14,600	1.07	15,500	12,700	.82	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	13,100	1.04	11,600	10,620	.92	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,810	1.02	9,600	9,730	1.01	F
I-5 n/o Oso	Northbound	4+1H	9,600	10,590	1.10	9,600	9,620	1.00	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,340	.88	9,600	8,990	.94	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,700	.80	9,600	7,410	.77	D
I-5 n/o SR 73	Northbound	4+1H	9,600	7,330	.76	9,600	6,900	.72	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	13,190	.97	13,600	11,510	.85	D
I-5 n/o Ortega	Northbound	5+1H	11,600	12,140	1.05	11,600	10,900	.94	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	11,090	1.16	9,600	10,140	1.06	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,830	1.13	9,600	10,300	1.07	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	10,020	1.04	9,600	9,380	.98	E
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	10,330	1.08	9,600	10,020	1.04	F
I-5 n/o Hermosa	Northbound	4+1H	9,600	9,590	1.00	9,600	9,860	1.03	F
I-5 n/o Pico	Northbound	4+1H+1A	10,600	9,420	.89	10,600	9,660	.91	E
I-5 n/o El Camino Real	Northbound	4	8,000	9,570	1.20	8,000	10,080	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,560	.68	9,600	5,050	.53	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,870	.61	9,600	4,610	.48	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	6,680	.70	9,600	2,400	.25	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	4,270	.56	7,600	1,400	.18	A
SR 241 n/o Oso	Northbound	3+1H	7,600	2,350	.31	7,600	580	.08	A

Table D-6 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	14,720	.68	21,500	17,440	.81	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,730	.65	19,500	15,550	.80	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,950	.71	15,500	14,610	.94	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,620	1.00	10,600	12,740	1.20	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,850	.92	10,600	11,020	1.04	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,540	.89	9,600	10,130	1.06	F
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,560	.89	10,600	9,540	.90	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,220	.75	9,600	7,680	.80	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,670	.69	9,600	7,010	.73	D
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,710	.71	13,600	13,040	.96	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,410	.81	11,600	12,170	1.05	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,550	.89	9,600	10,920	1.14	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	8,290	.86	9,600	10,670	1.11	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	8,290	.86	9,600	10,670	1.11	F
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,710	.91	9,600	10,760	1.12	F
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,610	.90	9,600	10,240	1.07	F
I-5 n/o Pico	Southbound	4+1H+1A	10,600	8,230	.78	10,600	10,140	.96	E
I-5 n/o El Camino Real	Southbound	4	8,000	8,120	1.02	8,000	10,790	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,450	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,440	.36	9,600	6,820	.71	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,040	.32	9,600	6,030	.63	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,540	.16	9,600	5,240	.55	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	960	.13	7,600	3,630	.48	B
SR 241 n/o Oso	Southbound	3+1H	7,600	500	.07	7,600	1,930	.25	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-7

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,700	.87	21,500	16,120	.75	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,720	.91	19,500	14,050	.72	D
I-5 n/o El Toro	Northbound	6+1H	13,600	15,100	1.11	15,500	12,830	.83	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	13,460	1.07	11,600	10,780	.93	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	11,310	1.07	9,600	9,890	1.03	F
I-5 n/o Oso	Northbound	4+1H	9,600	10,670	1.11	9,600	9,860	1.03	F
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,690	.91	9,600	9,330	.97	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,940	.83	9,600	7,540	.79	D
I-5 n/o SR 73	Northbound	4+1H	9,600	7,470	.78	9,600	7,140	.74	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	13,760	1.01	13,600	11,920	.88	D
I-5 n/o Ortega	Northbound	5+1H	11,600	12,440	1.07	11,600	11,120	.96	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	11,370	1.18	9,600	10,390	1.08	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	11,220	1.17	9,600	10,650	1.11	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	10,430	1.09	9,600	9,710	1.01	F
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	10,570	1.10	9,600	10,230	1.07	F
I-5 n/o Hermosa	Northbound	4+1H	9,600	9,710	1.01	9,600	10,020	1.04	F
I-5 n/o Pico	Northbound	4+1H+1A	10,600	9,460	.89	10,600	9,760	.92	E
I-5 n/o El Camino Real	Northbound	4	8,000	9,590	1.20	8,000	10,110	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,320	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	7,100	.74	9,600	5,280	.55	C
SR 73 n/o I-5	Northbound	4+1H	9,600	6,290	.66	9,600	4,780	.50	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	7,540	.79	9,600	2,610	.27	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	5,010	.66	7,600	1,550	.20	A
SR 241 n/o Oso	Northbound	3+1H	7,600	2,980	.39	7,600	800	.11	A

Table D-7 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	14,570	.68	21,500	17,620	.82	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,730	.65	19,500	15,910	.82	D
I-5 n/o El Toro	Southbound	6+2H	15,500	11,000	.71	15,500	15,060	.97	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,650	1.01	10,600	13,270	1.25	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,910	.93	10,600	11,340	1.07	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,620	.90	9,600	10,430	1.09	F
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,710	.91	10,600	10,090	.95	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,320	.76	9,600	7,890	.82	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,750	.70	9,600	7,190	.75	D
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,810	.72	13,600	13,680	1.01	F
I-5 n/o Ortega	Southbound	5+1H	11,600	9,480	.82	11,600	12,690	1.09	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,690	.91	9,600	11,360	1.18	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	8,530	.89	9,600	11,150	1.16	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	8,530	.89	9,600	11,150	1.16	F
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,960	.93	9,600	10,990	1.14	F
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,840	.92	9,600	10,440	1.09	F
I-5 n/o Pico	Southbound	4+1H+1A	10,600	8,280	.78	10,600	10,220	.96	E
I-5 n/o El Camino Real	Southbound	4	8,000	8,140	1.02	8,000	10,830	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,120	.77	8,000	7,440	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,080	.76	8,000	7,560	.95	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,080	.63	9,600	7,560	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,480	.36	9,600	7,340	.76	D
SR 73 n/o I-5	Southbound	4+1H	9,600	3,070	.32	9,600	6,480	.68	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,570	.16	9,600	6,060	.63	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	990	.13	7,600	4,310	.57	C
SR 241 n/o Oso	Southbound	3+1H	7,600	610	.08	7,600	2,540	.33	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-8

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,500	.81	21,500	15,410	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,470	.84	19,500	13,300	.68	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,890	1.02	15,500	12,030	.78	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,230	.97	11,600	9,950	.86	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	9,940	.94	9,600	9,010	.94	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,760	1.02	9,600	8,840	.92	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,390	.79	9,600	8,360	.87	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,740	.70	9,600	6,830	.71	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,700	.70	9,600	6,410	.67	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	11,810	.87	13,600	10,410	.77	D
I-5 n/o Ortega	Northbound	5+1H	11,600	10,910	.94	11,600	9,680	.83	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,000	1.04	9,600	8,910	.93	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,890	1.03	9,600	9,180	.96	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,040	.94	9,600	8,080	.84	D
I-5 n/o Estrella	Northbound	4+1A	8,500	9,320	1.10	8,500	8,640	1.02	F
I-5 n/o Hermosa	Northbound	4	8,000	8,210	1.03	8,000	8,290	1.04	F
I-5 n/o Pico	Northbound	4+1A	9,000	7,600	.84	9,000	7,800	.87	D
I-5 n/o El Camino Real	Northbound	4	8,000	7,460	.93	8,000	7,990	1.00	E
I-5 n/o Cristianitos	Northbound	4	8,000	5,000	.63	8,000	5,700	.71	C
I-5 s/o Cristianitos	Northbound	4	8,000	4,860	.61	8,000	5,330	.67	C
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,700	.59	9,600	4,250	.44	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,110	.53	9,600	3,990	.42	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,590	.89	9,600	4,270	.44	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,400	.84	7,600	3,480	.46	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,870	.64	7,600	2,920	.38	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,570	.82	5,600	3,170	.57	C
SR 241 n/o North River	Northbound	2+1H	5,600	3,400	.61	5,600	2,610	.47	B

Table D-8 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Pico	Northbound	2+1H	5,600	3,040	.54	5,600	3,020	.54	C
SR 241 n/o Cristianitos	Northbound	2+1H	5,600	2,310	.41	5,600	2,240	.40	B
SR 241 n/o I-5	Northbound	2+1H	5,600	2,120	.38	5,600	1,980	.35	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,390	.67	21,500	16,460	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,410	.64	19,500	14,620	.75	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,630	.69	15,500	13,710	.88	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,290	.97	10,600	11,830	1.12	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,500	.89	10,600	9,970	.94	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,150	.85	9,600	9,020	.94	E
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,160	.85	9,600	8,410	.88	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,840	.71	9,600	6,550	.68	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,440	.67	9,600	6,240	.65	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,350	.69	13,600	11,530	.85	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,820	.76	11,600	10,880	.94	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,980	.83	9,600	9,650	1.01	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,690	.80	9,600	9,410	.98	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,690	.80	9,600	9,410	.98	E
I-5 n/o Estrella	Southbound	4+1A	8,000	7,990	1.00	8,000	9,490	1.19	F
I-5 n/o Hermosa	Southbound	4	8,000	7,800	.98	8,000	8,600	1.08	F
I-5 n/o Pico	Southbound	4+1A	9,000	7,140	.79	9,000	7,910	.88	D
I-5 n/o El Camino Real	Southbound	4	8,000	6,980	.87	8,000	8,170	1.02	F
I-5 n/o Cristianitos	Southbound	4	8,000	5,270	.66	8,000	5,180	.65	C
I-5 s/o Cristianitos	Southbound	4	8,000	5,170	.65	8,000	5,150	.64	C
I-5 s/o Basilone	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,170	.33	9,600	5,910	.62	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,910	.30	9,600	5,290	.55	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,330	.24	9,600	7,590	.79	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,950	.26	7,600	6,200	.82	D

Table D-8 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,750	.23	7,600	4,920	.65	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,860	.33	5,600	4,770	.85	D
SR 241 n/o North River	Southbound	2+1H	5,600	1,430	.26	5,600	3,670	.66	C
SR 241 n/o Pico	Southbound	2+1H	5,600	2,060	.37	5,600	3,440	.61	C
SR 241 n/o Cristianitos	Southbound	2+1H	5,600	1,230	.22	5,600	2,820	.50	B
SR 241 n/o I-5	Southbound	2+1H	5,600	940	.17	5,600	2,400	.43	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-9

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,570	.82	21,500	15,520	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,560	.85	19,500	13,410	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,990	1.03	15,500	12,120	.78	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,350	.98	11,600	10,030	.86	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,040	.95	9,600	9,100	.95	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,890	1.03	9,600	8,930	.93	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,630	.81	9,600	8,350	.87	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,950	.72	9,600	6,750	.70	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,670	.69	9,600	6,270	.65	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,030	.88	13,600	10,320	.76	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,000	.95	11,600	9,830	.85	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	9,930	1.03	9,600	8,940	.93	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,730	1.01	9,600	9,110	.95	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	8,890	.93	9,600	8,090	.84	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,140	.95	9,600	8,760	.91	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,360	.87	9,600	8,640	.90	E
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,960	.75	10,600	8,230	.78	D
I-5 n/o El Camino Real	Northbound	4	8,000	7,760	.97	8,000	8,320	1.04	F
I-5 n/o Cristianitos	Northbound	4	8,000	5,240	.66	8,000	5,970	.75	D
I-5 s/o Cristianitos	Northbound	4	8,000	5,120	.64	8,000	5,630	.70	C
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,030	.63	9,600	4,470	.47	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,350	.56	9,600	4,050	.42	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,260	.86	9,600	3,970	.41	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,020	.79	7,600	3,130	.41	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,450	.59	7,600	2,530	.33	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,060	.73	5,600	2,730	.49	B
SR 241 n/o North River	Northbound	2+1H	5,600	2,890	.52	5,600	2,130	.38	B

Table D-9 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Pico	Northbound	2+1H	5,600	2,460	.44	5,600	2,310	.41	B
SR 241 n/o Cristianitos	Northbound	2+1H	5,600	2,000	.36	5,600	1,890	.34	B
SR 241 n/o I-5	Northbound	2+1H	5,600	1,850	.33	5,600	1,690	.30	A
I-5 n/o Bake	Southbound	9+2H	21,500	14,440	.67	21,500	16,570	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,470	.64	19,500	14,710	.75	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,680	.69	15,500	13,810	.89	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,340	.97	10,600	11,950	1.13	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,540	.89	10,600	10,110	.95	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,210	.86	9,600	9,230	.96	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,220	.86	10,600	8,700	.82	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,830	.71	9,600	6,790	.71	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,250	.65	9,600	6,180	.64	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,080	.67	13,600	11,710	.86	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,790	.76	11,600	11,050	.95	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,850	.82	9,600	9,600	1.00	E
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,560	.79	9,600	9,230	.96	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,560	.79	9,600	9,230	.96	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,030	.84	9,600	9,260	.96	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	7,940	.83	9,600	8,730	.91	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,380	.70	10,600	8,370	.79	D
I-5 n/o El Camino Real	Southbound	4	8,000	7,160	.90	8,000	8,420	1.05	F
I-5 n/o Cristianitos	Southbound	4	8,000	5,380	.67	8,000	5,410	.68	C
I-5 s/o Cristianitos	Southbound	4	8,000	5,290	.66	8,000	5,420	.68	C
I-5 s/o Basilone	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,210	.33	9,600	6,180	.64	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,830	.29	9,600	5,520	.58	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,210	.23	9,600	7,200	.75	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,760	.23	7,600	5,740	.76	D

Table D-9 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,520	.20	7,600	4,450	.59	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,590	.28	5,600	4,210	.75	D
SR 241 n/o North River	Southbound	2+1H	5,600	1,100	.20	5,600	3,120	.56	C
SR 241 n/o Pico	Southbound	2+1H	5,600	1,480	.26	5,600	2,750	.49	B
SR 241 n/o Cristianitos	Southbound	2+1H	5,600	1,040	.19	5,600	2,530	.45	B
SR 241 n/o I-5	Southbound	2+1H	5,600	820	.15	5,600	2,130	.38	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-10

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,980	.84	21,500	15,510	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,910	.87	19,500	13,460	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,400	1.06	15,500	12,230	.79	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,740	1.01	11,600	10,140	.87	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,390	.98	9,600	9,200	.96	E
I-5 n/o Oso	Northbound	4+1H	9,600	10,060	1.05	9,600	9,100	.95	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,670	.82	9,600	8,490	.88	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,930	.72	9,600	6,600	.69	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,610	.69	9,600	6,170	.64	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,210	.90	13,600	10,180	.75	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,120	.96	11,600	9,660	.83	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,090	1.05	9,600	8,870	.92	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,870	1.03	9,600	9,080	.95	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,050	.94	9,600	8,040	.84	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,120	.95	9,600	8,700	.91	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,320	.87	9,600	8,590	.89	D
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,940	.75	10,600	8,170	.77	D
I-5 n/o El Camino Real	Northbound	4	8,000	7,770	.97	8,000	8,290	1.04	F
I-5 n/o Cristianitos	Northbound	4	8,000	5,290	.66	8,000	5,940	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	5,160	.65	8,000	5,580	.70	C
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,340	.66	9,600	4,490	.47	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,600	.58	9,600	4,010	.42	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	9,320	.97	9,600	4,150	.43	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,910	.91	7,600	3,250	.43	B
SR 241 n/o Oso	Northbound	3+1H	7,600	5,370	.71	7,600	2,580	.34	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,410	.79	5,600	2,440	.44	B
SR 241 n/o Ortega	Northbound	2+1H	5,600	4,270	.76	5,600	2,670	.48	B

Table D-10 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Pico	Northbound	2+1H	5,600	2,390	.43	5,600	2,590	.46	B
SR 241 n/o Cristianitos	Northbound	2+1H	5,600	2,000	.36	5,600	1,960	.35	B
SR 241 n/o I-5	Northbound	2+1H	5,600	1,820	.33	5,600	1,740	.31	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,310	.67	21,500	16,710	.78	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,440	.64	19,500	14,980	.77	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,710	.69	15,500	14,170	.91	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,350	.97	10,600	12,280	1.16	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,600	.90	10,600	10,290	.97	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,230	.86	9,600	9,410	.98	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,190	.85	10,600	8,920	.84	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,760	.70	9,600	6,660	.69	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,160	.64	9,600	6,110	.64	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	8,850	.65	13,600	11,910	.88	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,550	.74	11,600	11,180	.96	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,770	.81	9,600	9,690	1.01	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,520	.78	9,600	9,360	.98	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,520	.78	9,600	9,360	.98	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,020	.84	9,600	9,310	.97	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	7,920	.83	9,600	8,740	.91	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,360	.69	10,600	8,380	.79	D
I-5 n/o El Camino Real	Southbound	4	8,000	7,130	.89	8,000	8,460	1.06	F
I-5 n/o Cristianitos	Southbound	4	8,000	5,340	.67	8,000	5,420	.68	C
I-5 s/o Cristianitos	Southbound	4	8,000	5,250	.66	8,000	5,420	.68	C
I-5 s/o Basilone	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,110	.32	9,600	6,560	.68	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,700	.28	9,600	5,800	.60	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,180	.23	9,600	8,240	.86	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,710	.23	7,600	6,670	.88	D

Table D-10 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,430	.19	7,600	5,210	.69	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,200	.21	5,600	4,640	.83	D
SR 241 n/o Ortega	Southbound	2+1H	5,600	1,350	.24	5,600	4,430	.79	D
SR 241 n/o Pico	Southbound	2+1H	5,600	1,850	.33	5,600	2,820	.50	B
SR 241 n/o Cristianitos	Southbound	2+1H	5,600	1,100	.20	5,600	2,530	.45	B
SR 241 n/o I-5	Southbound	2+1H	5,600	840	.15	5,600	2,140	.38	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-11

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	16,250	.76	21,500	13,310	.62	C
I-5 n/o Lake Forest	Northbound	8+2H	19,500	15,620	.80	19,500	11,750	.60	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,970	1.03	15,500	10,730	.69	C
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,070	.96	11,600	9,260	.80	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,400	.98	9,600	8,480	.88	D
I-5 n/o Oso	Northbound	4+1H	9,600	9,720	1.01	9,600	8,300	.86	D
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,540	.81	9,600	7,830	.82	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,810	.71	9,600	5,970	.62	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,440	.67	9,600	5,420	.56	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,380	.91	13,600	9,950	.73	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,170	.96	11,600	9,460	.82	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,070	1.05	9,600	8,670	.90	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,930	1.03	9,600	8,880	.93	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,080	.95	9,600	7,760	.81	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,090	.95	9,600	8,380	.87	D
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,270	.86	9,600	8,290	.86	D
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,860	.74	10,600	7,860	.74	D
I-5 n/o El Camino Real	Northbound	4	8,000	7,710	.96	8,000	7,940	.99	E
I-5 n/o Cristianitos	Northbound	4	8,000	5,280	.66	8,000	5,630	.70	C
I-5 s/o Cristianitos	Northbound	4	8,000	5,100	.64	8,000	5,250	.66	C
I-5 s/o Basiline	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,870	.72	9,600	5,220	.54	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,940	.62	9,600	4,540	.47	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	10,360	1.08	9,600	6,000	.63	C
SR 241 n/o Antonio	Northbound	3+1H	7,600	7,360	.97	7,600	4,210	.55	C
SR 241 n/o Oso	Northbound	3+1H	7,600	5,460	.72	7,600	3,290	.43	B
SR 241 s/o Oso	Northbound	3+1H	7,600	4,930	.65	7,600	3,220	.42	B
SR 241 n/o Ortega	Northbound	3+1H	7,600	4,800	.63	7,600	3,480	.46	B

Table D-11 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Pico	Northbound	3+1H	7,600	2,590	.34	7,600	3,160	.42	B
SR 241 n/o Cristianitos	Northbound	3+1H	7,600	2,080	.27	7,600	2,320	.31	B
SR 241 n/o I-5	Northbound	3+1H	7,600	1,870	.25	7,600	2,070	.27	A
I-5 n/o Bake	Southbound	9+2H	21,500	12,360	.57	21,500	15,870	.74	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	10,860	.56	19,500	15,160	.78	D
I-5 n/o El Toro	Southbound	6+2H	15,500	9,310	.60	15,500	13,760	.89	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	8,420	.88	10,600	11,830	1.12	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	7,760	.81	10,600	10,240	.97	E
I-5 n/o Oso	Southbound	4+1H	9,600	7,260	.76	9,600	9,400	.98	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	7,200	.75	10,600	8,980	.85	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	5,760	.60	9,600	6,660	.69	C
I-5 n/o SR 73	Southbound	4+1H	9,600	5,080	.53	9,600	6,140	.64	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	8,510	.63	13,600	11,960	.88	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,210	.71	11,600	11,160	.96	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,420	.77	9,600	9,650	1.01	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,140	.74	9,600	9,350	.97	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,140	.74	9,600	9,350	.97	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	7,610	.79	9,600	9,230	.96	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	7,520	.78	9,600	8,640	.90	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	6,990	.66	10,600	8,320	.78	D
I-5 n/o El Camino Real	Southbound	4	8,000	6,730	.84	8,000	8,340	1.04	F
I-5 n/o Cristianitos	Southbound	4	8,000	4,970	.62	8,000	5,320	.67	C
I-5 s/o Cristianitos	Southbound	4	8,000	4,870	.61	8,000	5,300	.66	C
I-5 s/o Basilone	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	4,050	.42	9,600	6,700	.70	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,430	.36	9,600	5,820	.61	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	3,920	.41	9,600	9,440	.98	E
SR 241 n/o Antonio	Southbound	3+1H	7,600	2,850	.38	7,600	7,260	.96	E

Table D-11 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	2,120	.28	7,600	5,540	.73	D
SR 241 s/o Oso	Southbound	3+1H	7,600	2,040	.27	7,600	5,130	.68	C
SR 241 n/o Ortega	Southbound	3+1H	7,600	2,220	.29	7,600	5,030	.66	C
SR 241 n/o Pico	Southbound	3+1H	7,600	2,490	.33	7,600	3,090	.41	B
SR 241 n/o Cristianitos	Southbound	3+1H	7,600	1,520	.20	7,600	2,680	.35	B
SR 241 n/o I-5	Southbound	3+1H	7,600	1,210	.16	7,600	2,260	.30	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-12

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,520	.81	21,500	15,490	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,510	.85	19,500	13,380	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,930	1.02	15,500	12,090	.78	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,260	.97	11,600	10,000	.86	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	9,970	.94	9,600	9,070	.94	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,780	1.02	9,600	8,890	.93	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,410	.79	9,600	8,360	.87	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,730	.70	9,600	6,800	.71	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,660	.69	9,600	6,380	.66	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	11,830	.87	13,600	10,550	.78	D
I-5 n/o Ortega	Northbound	5+1H	11,600	10,950	.94	11,600	9,810	.85	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,030	1.04	9,600	9,000	.94	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,900	1.03	9,600	9,270	.97	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,050	.94	9,600	8,200	.85	D
I-5 n/o Estrella	Northbound	4+1A	8,500	9,320	1.10	8,500	8,730	1.03	F
I-5 n/o Hermosa	Northbound	4	8,000	8,260	1.03	8,000	8,420	1.05	F
I-5 n/o Pico	Northbound	4+1A	9,000	7,460	.83	9,000	7,620	.85	D
I-5 n/o El Camino Real	Northbound	7	14,000	9,740	.70	14,000	10,270	.73	D
I-5 n/o Cristianitos	Northbound	5	10,000	6,830	.68	10,000	7,350	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,750	.60	9,600	4,410	.46	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,170	.54	9,600	4,170	.43	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,540	.89	9,600	4,080	.43	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,340	.83	7,600	3,300	.43	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,800	.63	7,600	2,740	.36	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,500	.80	5,600	3,000	.54	C

Table D-12 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2+1H	5,600	3,350	.60	5,600	2,440	.44	B
SR 241 n/o Hermosa	Northbound	2+1H	5,600	3,050	.54	5,600	2,990	.53	C
SR 241 n/o Del Cerro	Northbound	2+1H	5,600	2,520	.45	5,600	2,600	.46	B
SR 241 n/o I-5	Northbound	2+1H	5,600	2,670	.48	5,600	2,860	.51	C
I-5 n/o Bake	Southbound	9+2H	21,500	14,470	.67	21,500	16,500	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,470	.64	19,500	14,650	.75	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,690	.69	15,500	13,730	.89	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,340	.97	10,600	11,850	1.12	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,550	.89	10,600	9,990	.94	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,200	.85	9,600	9,050	.94	E
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,210	.86	9,600	8,430	.88	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,870	.72	9,600	6,540	.68	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,460	.67	9,600	6,220	.65	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,410	.69	13,600	11,650	.86	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,880	.77	11,600	10,960	.94	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,000	.83	9,600	9,730	1.01	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,710	.80	9,600	9,500	.99	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,710	.80	9,600	9,500	.99	E
I-5 n/o Estrella	Southbound	4+1A	8,000	8,010	1.00	8,000	9,570	1.20	F
I-5 n/o Hermosa	Southbound	4	8,000	7,840	.98	8,000	8,770	1.10	F
I-5 n/o Pico	Southbound	4+1A	9,000	7,030	.78	9,000	7,840	.87	D
I-5 n/o El Camino Real	Southbound	7	14,000	8,230	.59	14,000	11,020	.79	D
I-5 n/o Cristianitos	Southbound	5	10,000	6,140	.61	10,000	7,450	.75	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basilone	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 s/o Basilone	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,210	.33	9,600	6,010	.63	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,950	.31	9,600	5,420	.56	C

Table D-12 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,260	.24	9,600	7,460	.78	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,880	.25	7,600	6,040	.79	D
SR 241 n/o Oso	Southbound	3+1H	7,600	1,690	.22	7,600	4,770	.63	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,790	.32	5,600	4,620	.83	D
SR 241 n/o North River	Southbound	2+1H	5,600	1,370	.24	5,600	3,480	.62	C
SR 241 n/o Hermosa	Southbound	2+1H	5,600	2,080	.37	5,600	3,280	.59	C
SR 241 n/o Del Cerro	Southbound	2+1H	5,600	1,730	.31	5,600	3,000	.54	C
SR 241 n/o I-5	Southbound	2+1H	5,600	1,760	.31	5,600	3,350	.60	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-13

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,620	.82	21,500	15,620	.73	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,630	.85	19,500	13,500	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,010	1.03	15,500	12,210	.79	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,370	.98	11,600	10,120	.87	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,080	.95	9,600	9,190	.96	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,950	1.04	9,600	9,020	.94	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,700	.82	9,600	8,420	.88	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,010	.73	9,600	6,810	.71	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,710	.70	9,600	6,330	.66	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,140	.89	13,600	10,450	.77	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,110	.96	11,600	9,960	.86	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,010	1.04	9,600	9,060	.94	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,810	1.02	9,600	9,220	.96	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,000	.94	9,600	8,200	.85	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,220	.96	9,600	8,880	.93	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,460	.88	9,600	8,780	.91	E
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,850	.74	10,600	8,140	.77	D
I-5 n/o El Camino Real	Northbound	7	14,000	9,740	.70	14,000	10,300	.74	D
I-5 n/o Cristianitos	Northbound	5	10,000	6,840	.68	10,000	7,350	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,110	.64	9,600	4,540	.47	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,430	.57	9,600	4,120	.43	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,130	.85	9,600	3,830	.40	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	5,890	.78	7,600	3,010	.40	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,320	.57	7,600	2,430	.32	B
SR 241 s/o Oso	Northbound	2+1H	5,600	3,930	.70	5,600	2,630	.47	B

Table D-13 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2+1H	5,600	2,780	.50	5,600	2,020	.36	B
SR 241 n/o Hermosa	Northbound	2+1H	5,600	2,380	.43	5,600	2,340	.42	B
SR 241 n/o Del Cerro	Northbound	2+1H	5,600	2,100	.38	5,600	2,190	.39	B
SR 241 n/o I-5	Northbound	2+1H	5,600	2,360	.42	5,600	2,580	.46	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,550	.68	21,500	16,630	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,600	.65	19,500	14,770	.76	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,800	.70	15,500	13,880	.90	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,450	.98	10,600	11,990	1.13	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,660	.90	10,600	10,160	.96	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,330	.87	9,600	9,280	.97	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,330	.87	10,600	8,740	.82	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,950	.72	9,600	6,840	.71	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,380	.66	9,600	6,220	.65	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,250	.68	13,600	11,840	.87	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,960	.77	11,600	11,140	.96	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,000	.83	9,600	9,700	1.01	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,710	.80	9,600	9,360	.98	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,710	.80	9,600	9,360	.98	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,170	.85	9,600	9,390	.98	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,090	.84	9,600	8,870	.92	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,390	.70	10,600	8,310	.78	D
I-5 n/o El Camino Real	Southbound	7	14,000	8,230	.59	14,000	11,040	.79	D
I-5 n/o Cristianitos	Southbound	5	10,000	6,140	.61	10,000	7,460	.75	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,260	.34	9,600	6,270	.65	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,870	.30	9,600	5,620	.59	C

Table D-13 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,060	.21	9,600	7,030	.73	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,620	.21	7,600	5,590	.74	D
SR 241 n/o Oso	Southbound	3+1H	7,600	1,400	.18	7,600	4,310	.57	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,450	.26	5,600	4,070	.73	D
SR 241 n/o North River	Southbound	2+1H	5,600	970	.17	5,600	3,010	.54	C
SR 241 n/o Hermosa	Southbound	2+1H	5,600	1,450	.26	5,600	2,630	.47	B
SR 241 n/o Del Cerro	Southbound	2+1H	5,600	1,300	.23	5,600	2,600	.46	B
SR 241 n/o I-5	Southbound	2+1H	5,600	1,530	.27	5,600	3,070	.55	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-14

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,060	.84	21,500	15,550	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,980	.87	19,500	13,520	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,420	1.06	15,500	12,280	.79	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,750	1.01	11,600	10,200	.88	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,420	.98	9,600	9,260	.96	E
I-5 n/o Oso	Northbound	4+1H	9,600	10,100	1.05	9,600	9,160	.95	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,700	.82	9,600	8,540	.89	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,980	.73	9,600	6,640	.69	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,650	.69	9,600	6,210	.65	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,310	.91	13,600	10,320	.76	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,220	.97	11,600	9,800	.84	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,180	1.06	9,600	8,970	.93	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,960	1.04	9,600	9,190	.96	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,150	.95	9,600	8,150	.85	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,220	.96	9,600	8,820	.92	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,440	.88	9,600	8,740	.91	E
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,850	.74	10,600	8,080	.76	D
I-5 n/o El Camino Real	Northbound	7	14,000	9,770	.70	14,000	10,330	.74	D
I-5 n/o Cristianitos	Northbound	5	10,000	6,840	.68	10,000	7,350	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,320	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,400	.67	9,600	4,580	.48	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,660	.59	9,600	4,110	.43	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	9,230	.96	9,600	4,030	.42	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,850	.90	7,600	3,140	.41	B
SR 241 n/o Oso	Northbound	3+1H	7,600	5,260	.69	7,600	2,490	.33	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,320	.77	5,600	2,340	.42	B

Table D-14 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Ortega	Northbound	2+1H	5,600	4,160	.74	5,600	2,590	.46	B
SR 241 n/o Hermosa	Northbound	2+1H	5,600	2,300	.41	5,600	2,630	.47	B
SR 241 n/o Del Cerro	Northbound	2+1H	5,600	2,120	.38	5,600	2,350	.42	B
SR 241 n/o I-5	Northbound	2+1H	5,600	2,310	.41	5,600	2,630	.47	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,460	.67	21,500	16,760	.78	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,540	.64	19,500	15,020	.77	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,810	.70	15,500	14,210	.92	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,470	.99	10,600	12,330	1.16	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,710	.91	10,600	10,330	.97	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,340	.87	9,600	9,460	.99	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,290	.86	10,600	8,980	.85	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,880	.72	9,600	6,690	.70	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,280	.65	9,600	6,140	.64	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,030	.66	13,600	12,040	.89	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,730	.75	11,600	11,310	.98	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,920	.83	9,600	9,790	1.02	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,670	.80	9,600	9,490	.99	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,670	.80	9,600	9,490	.99	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,160	.85	9,600	9,430	.98	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,070	.84	9,600	8,890	.93	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,370	.70	10,600	8,300	.78	D
I-5 n/o El Camino Real	Southbound	7	14,000	8,260	.59	14,000	11,060	.79	D
I-5 n/o Cristianitos	Southbound	5	10,000	6,120	.61	10,000	7,450	.75	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,080	.76	8,000	7,560	.95	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,080	.63	9,600	7,560	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,150	.33	9,600	6,630	.69	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,740	.29	9,600	5,900	.61	C

Table D-14 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,030	.21	9,600	8,130	.85	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,560	.21	7,600	6,580	.87	D
SR 241 n/o Oso	Southbound	3+1H	7,600	1,290	.17	7,600	5,130	.68	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,050	.19	5,600	4,530	.81	D
SR 241 n/o Ortega	Southbound	2+1H	5,600	1,220	.22	5,600	4,320	.77	D
SR 241 n/o Hermosa	Southbound	2+1H	5,600	1,840	.33	5,600	2,730	.49	B
SR 241 n/o Del Cerro	Southbound	2+1H	5,600	1,490	.27	5,600	2,660	.48	B
SR 241 n/o I-5	Southbound	2+1H	5,600	1,580	.28	5,600	3,070	.55	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-15

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,580	.82	21,500	15,580	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,550	.85	19,500	13,470	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,000	1.03	15,500	12,180	.79	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,360	.98	11,600	10,090	.87	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,090	.95	9,600	9,180	.96	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,860	1.03	9,600	8,990	.94	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,510	.80	9,600	8,500	.89	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,860	.71	9,600	6,980	.73	D
I-5 n/o SR 73	Northbound	4+1H	9,600	6,760	.70	9,600	6,550	.68	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,040	.89	13,600	10,730	.79	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,130	.96	11,600	9,980	.86	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,240	1.07	9,600	9,200	.96	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,110	1.05	9,600	9,470	.99	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,290	.97	9,600	8,420	.88	D
I-5 n/o Estrella	Northbound	4+1A	8,500	9,580	1.13	8,500	8,960	1.05	F
I-5 n/o Hermosa	Northbound	4	8,000	8,490	1.06	8,000	8,590	1.07	F
I-5 n/o Pico	Northbound	4+1A	9,000	7,940	.88	9,000	8,140	.90	E
I-5 n/o El Camino Real	Northbound	4	8,000	7,880	.99	8,000	8,440	1.06	F
I-5 n/o Cristianitos	Northbound	4	8,000	5,390	.67	8,000	6,060	.76	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,900	.61	9,600	4,430	.46	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,270	.55	9,600	4,180	.44	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,350	.87	9,600	3,930	.41	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,150	.81	7,600	3,140	.41	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,610	.61	7,600	2,560	.34	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,260	.76	5,600	2,820	.50	B

Table D-15 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2+1H	5,600	3,080	.55	5,600	2,250	.40	B
SR 241 n/o Pico	Northbound	2	4,000	2,720	.68	4,000	2,680	.67	C
I-5 n/o Bake	Southbound	9+2H	21,500	14,490	.67	21,500	16,640	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,500	.64	19,500	14,770	.76	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,720	.69	15,500	13,850	.89	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,370	.98	10,600	11,980	1.13	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,590	.89	10,600	10,150	.96	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,250	.86	9,600	9,180	.96	E
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,250	.86	9,600	8,590	.89	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,950	.72	9,600	6,730	.70	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,540	.68	9,600	6,400	.67	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,540	.70	13,600	11,870	.87	D
I-5 n/o Ortega	Southbound	5+1H	11,600	9,010	.78	11,600	11,170	.96	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,170	.85	9,600	9,980	1.04	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,880	.82	9,600	9,760	1.02	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,880	.82	9,600	9,760	1.02	F
I-5 n/o Estrella	Southbound	4+1A	8,000	8,170	1.02	8,000	9,850	1.23	F
I-5 n/o Hermosa	Southbound	4	8,000	7,980	1.00	8,000	8,990	1.12	F
I-5 n/o Pico	Southbound	4+1A	9,000	7,350	.82	9,000	8,310	.92	E
I-5 n/o El Camino Real	Southbound	4	8,000	7,240	.91	8,000	8,740	1.09	F
I-5 n/o Cristianitos	Southbound	4	8,000	5,510	.69	8,000	5,690	.71	C
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 s/o Basiline	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,260	.34	9,600	6,060	.63	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,000	.31	9,600	5,470	.57	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,170	.23	9,600	7,230	.75	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,770	.23	7,600	5,820	.77	D

Table D-15 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,580	.21	7,600	4,540	.60	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,700	.30	5,600	4,400	.79	D
SR 241 n/o North River	Southbound	2+1H	5,600	1,240	.22	5,600	3,270	.58	C
SR 241 n/o Pico	Southbound	2	4,000	1,880	.47	4,000	3,040	.76	D

Lane abbreviations: H – high occupancy vehicle (HOV) lane
 A – auxiliary lane
 All other entries represent mixed-flow (general purpose) lanes.

Table D-16

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,680	.82	21,500	15,660	.73	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,670	.85	19,500	13,550	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,110	1.04	15,500	12,260	.79	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,470	.99	11,600	10,180	.88	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,180	.96	9,600	9,250	.96	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,980	1.04	9,600	9,080	.95	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,740	.82	9,600	8,510	.89	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,060	.74	9,600	6,910	.72	D
I-5 n/o SR 73	Northbound	4+1H	9,600	6,750	.70	9,600	6,430	.67	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,260	.90	13,600	10,570	.78	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,220	.97	11,600	10,070	.87	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,140	1.06	9,600	9,170	.96	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,920	1.03	9,600	9,340	.97	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,100	.95	9,600	8,330	.87	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,380	.98	9,600	9,000	.94	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,620	.90	9,600	8,890	.93	E
I-5 n/o Pico	Northbound	4+1H+1A	10,600	8,270	.78	10,600	8,510	.80	D
I-5 n/o El Camino Real	Northbound	4	8,000	8,140	1.02	8,000	8,690	1.09	F
I-5 n/o Cristianitos	Northbound	4	8,000	5,590	.70	8,000	6,250	.78	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,190	.64	9,600	4,560	.48	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,510	.57	9,600	4,140	.43	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,010	.83	9,600	3,700	.39	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	5,790	.76	7,600	2,860	.38	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,180	.55	7,600	2,260	.30	A
SR 241 s/o Oso	Northbound	2+1H	5,600	3,760	.67	5,600	2,470	.44	B

Table D-16 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2+1H	5,600	2,580	.46	5,600	1,860	.33	B
SR 241 n/o Pico	Northbound	2	4,000	2,140	.54	4,000	2,070	.52	C
I-5 n/o Bake	Southbound	9+2H	21,500	14,560	.68	21,500	16,720	.78	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,620	.65	19,500	14,860	.76	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,820	.70	15,500	13,970	.90	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,470	.99	10,600	12,110	1.14	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,690	.91	10,600	10,280	.97	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,360	.87	9,600	9,380	.98	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,370	.87	10,600	8,860	.84	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,000	.73	9,600	6,950	.72	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,430	.67	9,600	6,340	.66	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,350	.69	13,600	12,000	.88	D
I-5 n/o Ortega	Southbound	5+1H	11,600	9,060	.78	11,600	11,320	.98	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,110	.84	9,600	9,860	1.03	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,820	.81	9,600	9,520	.99	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,820	.81	9,600	9,520	.99	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,280	.86	9,600	9,540	.99	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,200	.85	9,600	9,020	.94	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,680	.72	10,600	8,730	.82	D
I-5 n/o El Camino Real	Southbound	4	8,000	7,490	.94	8,000	8,930	1.12	F
I-5 n/o Cristianitos	Southbound	4	8,000	5,700	.71	8,000	5,860	.73	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basitone	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basitone	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,300	.34	9,600	6,320	.66	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,920	.30	9,600	5,660	.59	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,980	.21	9,600	6,880	.72	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,530	.20	7,600	5,420	.71	C

Table D-16 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,290	.17	7,600	4,120	.54	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,360	.24	5,600	3,890	.69	C
SR 241 n/o North River	Southbound	2+1H	5,600	850	.15	5,600	2,790	.50	B
SR 241 n/o Pico	Southbound	2	4,000	1,240	.31	4,000	2,400	.60	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-17

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,120	.84	21,500	16,040	.75	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,130	.88	19,500	13,860	.71	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,560	1.07	15,500	12,640	.82	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	13,000	1.03	11,600	10,550	.91	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,720	1.01	9,600	9,700	1.01	F
I-5 n/o Oso	Northbound	4+1H	9,600	10,470	1.09	9,600	9,620	1.00	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,190	.87	9,600	9,150	.95	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,680	.80	9,600	7,750	.81	D
I-5 n/o SR 73	Northbound	4+1H	9,600	7,520	.78	9,600	7,280	.76	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	13,280	.98	13,600	12,010	.88	D
I-5 n/o Ortega	Northbound	5+1H	11,600	12,350	1.06	11,600	11,120	.96	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	11,630	1.21	9,600	10,570	1.10	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	11,570	1.21	9,600	10,770	1.12	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	10,770	1.12	9,600	9,840	1.03	F
I-5 n/o Estrella	Northbound	4+1A	8,500	11,270	1.33	8,500	10,440	1.23	F
I-5 n/o Hermosa	Northbound	4	8,000	10,080	1.26	8,000	9,950	1.24	F
I-5 n/o Pico	Northbound	4+1A	9,000	9,470	1.05	9,000	9,370	1.04	F
I-5 n/o El Camino Real	Northbound	4	8,000	9,590	1.20	8,000	10,050	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,460	.67	9,600	5,030	.52	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,760	.60	9,600	4,730	.49	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	7,100	.74	9,600	2,650	.28	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	4,850	.64	7,600	1,900	.25	A
SR 241 n/o Oso	Northbound	3+1H	7,600	3,210	.42	7,600	1,370	.18	A
SR 241 s/o Oso	Northbound	2+1H	5,600	2,760	.49	5,600	1,390	.25	A

Table D-17 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2	4,000	1,250	.31	4,000	510	.13	A
I-5 n/o Bake	Southbound	9+2H	21,500	14,680	.68	21,500	17,380	.81	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,740	.65	19,500	15,510	.80	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,940	.71	15,500	14,560	.94	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,610	1.00	10,600	12,700	1.20	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,880	.93	10,600	10,960	1.03	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,580	.89	9,600	10,030	1.04	F
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,630	.90	9,600	9,490	.99	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,440	.78	9,600	7,780	.81	D
I-5 n/o SR 73	Southbound	4+1H	9,600	7,090	.74	9,600	7,340	.76	D
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	10,270	.76	13,600	13,320	.98	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,720	.84	11,600	12,490	1.08	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	9,030	.94	9,600	11,570	1.21	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	8,770	.91	9,600	11,450	1.19	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	8,770	.91	9,600	11,450	1.19	F
I-5 n/o Estrella	Southbound	4+1A	8,000	8,990	1.12	8,000	11,780	1.47	F
I-5 n/o Hermosa	Southbound	4	8,000	8,590	1.07	8,000	10,840	1.36	F
I-5 n/o Pico	Southbound	4+1A	9,000	8,040	.89	9,000	9,990	1.11	F
I-5 n/o El Camino Real	Southbound	4	8,000	8,090	1.01	8,000	10,810	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,460	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 s/o Basiline	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,460	.36	9,600	6,620	.69	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,170	.33	9,600	5,980	.62	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,670	.17	9,600	5,650	.59	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,290	.17	7,600	4,190	.55	C
SR 241 n/o Oso	Southbound	3+1H	7,600	1,140	.15	7,600	2,820	.37	B

Table D-17 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 s/o Oso	Southbound	2+1H	5,600	1,050	.19	5,600	2,610	.47	B
SR 241 n/o North River	Southbound	2	4,000	320	.08	4,000	1,260	.32	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-18

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(BULDOZT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,080	.84	21,500	16,070	.75	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,080	.88	19,500	13,880	.71	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,500	1.07	15,500	12,620	.81	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,940	1.03	11,600	10,520	.91	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,650	1.00	9,600	9,660	1.01	F
I-5 n/o Oso	Northbound	4+1H	9,600	10,490	1.09	9,600	9,550	.99	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,250	.87	9,600	9,000	.94	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,640	.80	9,600	7,420	.77	D
I-5 n/o SR 73	Northbound	4+1H	9,600	7,280	.76	9,600	6,930	.72	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	13,070	.96	13,600	11,580	.85	D
I-5 n/o Ortega	Northbound	5+1H	11,600	12,040	1.04	11,600	10,920	.94	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	11,040	1.15	9,600	10,150	1.06	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,810	1.13	9,600	10,300	1.07	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	10,000	1.04	9,600	9,360	.98	E
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	10,300	1.07	9,600	10,000	1.04	F
I-5 n/o Hermosa	Northbound	4+1H	9,600	9,530	.99	9,600	9,850	1.03	F
I-5 n/o Pico	Northbound	4+1H+1A	10,600	9,330	.88	10,600	9,640	.91	E
I-5 n/o El Camino Real	Northbound	4	8,000	9,570	1.20	8,000	10,080	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,470	.67	9,600	5,080	.53	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,790	.60	9,600	4,640	.48	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	7,150	.74	9,600	2,640	.28	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	4,860	.64	7,600	1,860	.24	A
SR 241 n/o Oso	Northbound	3+1H	7,600	3,190	.42	7,600	1,280	.17	A
SR 241 s/o Oso	Northbound	2+1H	5,600	2,760	.49	5,600	1,310	.23	A

Table D-18 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2	4,000	1,240	.31	4,000	450	.11	A
I-5 n/o Bake	Southbound	9+2H	21,500	14,660	.68	21,500	17,280	.80	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,710	.65	19,500	15,440	.79	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,920	.70	15,500	14,500	.94	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,580	1.00	10,600	12,600	1.19	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,810	.92	10,600	10,840	1.02	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,500	.89	9,600	9,970	1.04	F
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,540	.89	10,600	9,450	.89	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,210	.75	9,600	7,610	.79	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,650	.69	9,600	6,950	.72	D
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,740	.72	13,600	12,900	.95	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,440	.81	11,600	12,020	1.04	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,550	.89	9,600	10,940	1.14	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	8,290	.86	9,600	10,650	1.11	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	8,290	.86	9,600	10,650	1.11	F
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,710	.91	9,600	10,680	1.11	F
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,610	.90	9,600	10,170	1.06	F
I-5 n/o Pico	Southbound	4+1H+1A	10,600	8,200	.77	10,600	10,030	.95	E
I-5 n/o El Camino Real	Southbound	4	8,000	8,120	1.02	8,000	10,800	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,450	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,490	.36	9,600	6,660	.69	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,100	.32	9,600	5,950	.62	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,690	.18	9,600	5,780	.60	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,280	.17	7,600	4,290	.56	C
SR 241 n/o Oso	Southbound	3+1H	7,600	1,060	.14	7,600	2,900	.38	B

Table D-18 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour				
			Capacity	Volume	V/C	LOS	Capacity	Volume	V/C	LOS
SR 241 s/o Oso	Southbound	2+1H	5,600	980	.18	A	5,600	2,660	.48	B
SR 241 n/o North River	Southbound	2	4,000	270	.07	A	4,000	1,320	.33	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-19

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,710	.82	21,500	15,820	.74	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,690	.86	19,500	13,690	.70	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,100	1.04	15,500	12,400	.80	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,460	.99	11,600	10,330	.89	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,200	.96	9,600	9,420	.98	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,990	1.04	9,600	9,250	.96	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,650	.82	9,600	8,750	.91	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,010	.73	9,600	7,240	.75	D
I-5 n/o SR 73	Northbound	4+1H	9,600	6,910	.72	9,600	6,780	.71	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,270	.90	13,600	11,180	.82	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,310	.98	11,600	10,430	.90	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,450	1.09	9,600	9,650	1.01	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,280	1.07	9,600	9,880	1.03	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,460	.99	9,600	8,880	.93	E
I-5 n/o Estrella	Northbound	4+1A	8,500	9,780	1.15	8,500	9,410	1.11	F
I-5 n/o Hermosa	Northbound	4	8,000	8,720	1.09	8,000	8,930	1.12	F
I-5 n/o Pico	Northbound	4+1A	9,000	8,520	.95	9,000	8,850	.98	E
I-5 n/o El Camino Real	Northbound	4	8,000	9,610	1.20	8,000	10,080	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,820	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,970	.62	9,600	4,670	.49	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,360	.56	9,600	4,400	.46	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,120	.85	9,600	3,400	.35	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	5,920	.78	7,600	2,700	.36	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,360	.57	7,600	2,230	.29	A
SR 241 s/o Oso	Northbound	2+1H	5,600	4,050	.72	5,600	2,350	.42	B

Table D-19 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2+1H	5,600	2,840	.51	5,600	1,780	.32	B
SR 241 n/o Pico	Northbound	2	4,000	2,470	.62	4,000	2,200	.55	C
I-5 n/o Bake	Southbound	9+2H	21,500	14,630	.68	21,500	16,790	.78	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,680	.65	19,500	14,920	.77	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,880	.70	15,500	14,000	.90	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,530	.99	10,600	12,140	1.15	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,760	.91	10,600	10,320	.97	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,430	.88	9,600	9,360	.98	E
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,430	.88	9,600	8,770	.91	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,150	.74	9,600	6,940	.72	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,750	.70	9,600	6,560	.68	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,860	.73	13,600	12,170	.89	D
I-5 n/o Ortega	Southbound	5+1H	11,600	9,330	.80	11,600	11,430	.99	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,490	.88	9,600	10,280	1.07	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	8,210	.86	9,600	10,090	1.05	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	8,210	.86	9,600	10,090	1.05	F
I-5 n/o Estrella	Southbound	4+1A	8,000	8,490	1.06	8,000	10,190	1.27	F
I-5 n/o Hermosa	Southbound	4	8,000	8,200	1.03	8,000	9,310	1.16	F
I-5 n/o Pico	Southbound	4+1A	9,000	7,750	.86	9,000	9,290	1.03	F
I-5 n/o El Camino Real	Southbound	4	8,000	8,070	1.01	8,000	10,830	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,460	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basitone	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 s/o Basitone	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,370	.35	9,600	6,230	.65	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,110	.32	9,600	5,610	.58	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,870	.19	9,600	6,860	.71	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,570	.21	7,600	5,430	.71	C

Table D-19 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,470	.19	7,600	4,140	.54	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,430	.26	5,600	4,030	.72	D
SR 241 n/o North River	Southbound	2+1H	5,600	950	.17	5,600	2,880	.51	C
SR 241 n/o Pico	Southbound	2	4,000	1,620	.41	4,000	2,640	.66	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane
 A – auxiliary lane
 All other entries represent mixed-flow (general purpose) lanes.

Table D-20

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
(BULDOZT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,790	.83	21,500	15,860	.74	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,780	.86	19,500	13,680	.70	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,210	1.04	15,500	12,470	.80	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,590	1.00	11,600	10,380	.89	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,300	.97	9,600	9,470	.99	E
I-5 n/o Oso	Northbound	4+1H	9,600	10,110	1.05	9,600	9,350	.97	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,870	.84	9,600	8,740	.91	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,210	.75	9,600	7,140	.74	D
I-5 n/o SR 73	Northbound	4+1H	9,600	6,890	.72	9,600	6,640	.69	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,460	.92	13,600	11,030	.81	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,410	.98	11,600	10,490	.90	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,360	1.08	9,600	9,560	1.00	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,130	1.06	9,600	9,710	1.01	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,320	.97	9,600	8,750	.91	E
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,600	1.00	9,600	9,410	.98	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,860	.92	9,600	9,270	.97	E
I-5 n/o Pico	Northbound	4+1H+1A	10,600	8,880	.84	10,600	9,110	.86	D
I-5 n/o El Camino Real	Northbound	4	8,000	9,600	1.20	8,000	10,080	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,240	.65	9,600	4,820	.50	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,570	.58	9,600	4,390	.46	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	7,800	.81	9,600	3,180	.33	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	5,560	.73	7,600	2,440	.32	B
SR 241 n/o Oso	Northbound	3+1H	7,600	3,920	.52	7,600	1,930	.25	A
SR 241 s/o Oso	Northbound	2+1H	5,600	3,540	.63	5,600	1,980	.35	B

Table D-20 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2+1H	5,600	2,340	.42	5,600	1,350	.24	A
SR 241 n/o Pico	Northbound	2	4,000	1,820	.46	4,000	1,540	.39	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,640	.68	21,500	16,890	.79	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,680	.65	19,500	15,030	.77	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,890	.70	15,500	14,120	.91	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,550	.99	10,600	12,250	1.16	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,770	.91	10,600	10,450	.99	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,450	.88	9,600	9,560	1.00	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,470	.88	10,600	9,020	.85	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,110	.74	9,600	7,140	.74	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,530	.68	9,600	6,500	.68	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,560	.70	13,600	12,320	.91	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,270	.80	11,600	11,530	.99	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,340	.87	9,600	10,230	1.07	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	8,050	.84	9,600	9,910	1.03	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	8,050	.84	9,600	9,910	1.03	F
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,490	.88	9,600	9,920	1.03	F
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,410	.88	9,600	9,420	.98	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	8,010	.76	10,600	9,550	.90	E
I-5 n/o El Camino Real	Southbound	4	8,000	8,110	1.01	8,000	10,810	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,440	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basitone	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basitone	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,420	.36	9,600	6,580	.69	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,030	.32	9,600	5,820	.61	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,790	.19	9,600	6,460	.67	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,430	.19	7,600	4,990	.66	C

Table D-20 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,290	.17	7,600	3,670	.48	B
SR 241 s/o Oso	Southbound	2+1H	5,600	1,200	.21	5,600	3,460	.62	C
SR 241 n/o North River	Southbound	2+1H	5,600	670	.12	5,600	2,310	.41	B
SR 241 n/o Pico	Southbound	2	4,000	1,060	.27	4,000	1,800	.45	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane
 A – auxiliary lane
 All other entries represent mixed-flow (general purpose) lanes.

Table D-21

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,530	.82	21,500	15,450	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,520	.85	19,500	13,340	.68	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,920	1.02	15,500	12,060	.78	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,250	.97	11,600	9,980	.86	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	9,950	.94	9,600	9,020	.94	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,750	1.02	9,600	8,860	.92	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,360	.79	9,600	8,320	.87	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,660	.69	9,600	6,750	.70	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,590	.69	9,600	6,340	.66	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	11,700	.86	13,600	10,320	.76	D
I-5 n/o Ortega	Northbound	5+1H	11,600	10,850	.94	11,600	9,620	.83	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	9,870	1.03	9,600	8,800	.92	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,680	1.01	9,600	9,030	.94	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	8,850	.92	9,600	7,930	.83	D
I-5 n/o Estrella	Northbound	4+1A	8,500	9,090	1.07	8,500	8,460	1.00	E
I-5 n/o Hermosa	Northbound	4	8,000	8,040	1.01	8,000	8,220	1.03	F
I-5 n/o Pico	Northbound	4+1A	9,000	7,270	.81	9,000	7,430	.83	D
I-5 n/o El Camino Real	Northbound	7	14,000	9,740	.70	14,000	10,240	.73	D
I-5 n/o Cristianitos	Northbound	5	10,000	6,840	.68	10,000	7,350	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,700	.59	9,600	4,240	.44	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,100	.53	9,600	3,980	.41	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,630	.90	9,600	4,290	.45	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,450	.85	7,600	3,520	.46	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,990	.66	7,600	2,980	.39	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,470	.80	5,600	3,090	.55	C

Table D-21 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Ortega	Northbound	2+1H	5,600	3,160	.56	5,600	2,640	.47	B
SR 241 n/o Hermosa	Northbound	2+1H	5,600	3,430	.61	5,600	3,300	.59	C
SR 241 n/o Del Cerro	Northbound	2+1H	5,600	2,780	.50	5,600	2,830	.51	C
SR 241 n/o I-5	Northbound	2+1H	5,600	2,810	.50	5,600	3,030	.54	C
I-5 n/o Bake	Southbound	9+2H	21,500	14,430	.67	21,500	16,490	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,420	.64	19,500	14,600	.75	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,630	.69	15,500	13,690	.88	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,290	.97	10,600	11,810	1.11	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,510	.89	10,600	9,950	.94	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,140	.85	9,600	8,980	.94	E
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,100	.84	9,600	8,390	.87	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,760	.70	9,600	6,460	.67	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,320	.66	9,600	6,150	.64	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,210	.68	13,600	11,510	.85	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,670	.75	11,600	10,840	.93	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,760	.81	9,600	9,530	.99	E
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,450	.78	9,600	9,270	.97	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,450	.78	9,600	9,270	.97	E
I-5 n/o Estrella	Southbound	4+1A	8,000	7,760	.97	8,000	9,280	1.16	F
I-5 n/o Hermosa	Southbound	4	8,000	7,620	.95	8,000	8,550	1.07	F
I-5 n/o Pico	Southbound	4+1A	9,000	6,820	.76	9,000	7,540	.84	D
I-5 n/o El Camino Real	Southbound	7	14,000	8,220	.59	14,000	11,010	.79	D
I-5 n/o Cristianitos	Southbound	5	10,000	6,140	.61	10,000	7,460	.75	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 s/o Basiline	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,140	.33	9,600	5,920	.62	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,890	.30	9,600	5,360	.56	C

Table D-21 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,400	.25	9,600	7,520	.78	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	2,020	.27	7,600	6,120	.81	D
SR 241 n/o Oso	Southbound	3+1H	7,600	1,830	.24	7,600	4,860	.64	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,820	.33	5,600	4,440	.79	D
SR 241 n/o Ortega	Southbound	2+1H	5,600	1,560	.28	5,600	3,310	.59	C
SR 241 n/o Hermosa	Southbound	2+1H	5,600	2,300	.41	5,600	3,720	.66	C
SR 241 n/o Del Cerro	Southbound	2+1H	5,600	2,010	.36	5,600	3,410	.61	C
SR 241 n/o I-5	Southbound	2+1H	5,600	1,950	.35	5,600	3,680	.66	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-22

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,580	.82	21,500	15,510	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,590	.85	19,500	13,390	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,960	1.03	15,500	12,110	.78	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,310	.98	11,600	10,040	.87	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	9,990	.94	9,600	9,090	.95	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,850	1.03	9,600	8,930	.93	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,590	.81	9,600	8,320	.87	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,880	.72	9,600	6,690	.70	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,610	.69	9,600	6,220	.65	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	11,960	.88	13,600	10,180	.75	D
I-5 n/o Ortega	Northbound	5+1H	11,600	10,950	.94	11,600	9,720	.84	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	9,850	1.03	9,600	8,870	.92	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,660	1.01	9,600	9,040	.94	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	8,820	.92	9,600	7,980	.83	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,050	.94	9,600	8,650	.90	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,280	.86	9,600	8,570	.89	D
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,620	.72	10,600	7,900	.75	D
I-5 n/o El Camino Real	Northbound	7	14,000	9,740	.70	14,000	10,250	.73	D
I-5 n/o Cristianitos	Northbound	5	10,000	6,840	.68	10,000	7,350	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,020	.63	9,600	4,380	.46	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,350	.56	9,600	3,960	.41	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,340	.87	9,600	4,100	.43	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,130	.81	7,600	3,310	.44	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,610	.61	7,600	2,780	.37	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,050	.72	5,600	2,850	.51	C

Table D-22 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Ortega	Northbound	2+1H	5,600	2,750	.49	5,600	2,380	.43	B
SR 241 n/o Hermosa	Northbound	2+1H	5,600	2,800	.50	5,600	2,610	.47	B
SR 241 n/o Del Cerro	Northbound	2+1H	5,600	2,420	.43	5,600	2,550	.46	B
SR 241 n/o I-5	Northbound	2+1H	5,600	2,590	.46	5,600	2,810	.50	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,450	.67	21,500	16,590	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,450	.64	19,500	14,700	.75	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,670	.69	15,500	13,810	.89	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,320	.97	10,600	11,930	1.13	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,520	.89	10,600	10,080	.95	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,180	.85	9,600	9,200	.96	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,140	.85	10,600	8,670	.82	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,740	.70	9,600	6,710	.70	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,150	.64	9,600	6,120	.64	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	8,950	.66	13,600	11,660	.86	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,670	.75	11,600	11,020	.95	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,740	.81	9,600	9,540	.99	E
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,440	.78	9,600	9,190	.96	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,440	.78	9,600	9,190	.96	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	7,910	.82	9,600	9,200	.96	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	7,830	.82	9,600	8,700	.91	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,060	.67	10,600	7,970	.75	D
I-5 n/o El Camino Real	Southbound	7	14,000	8,220	.59	14,000	11,010	.79	D
I-5 n/o Cristianitos	Southbound	5	10,000	6,140	.61	10,000	7,460	.75	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,180	.33	9,600	6,280	.65	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,800	.29	9,600	5,540	.58	C

Table D-22 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,310	.24	9,600	7,200	.75	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,900	.25	7,600	5,770	.76	D
SR 241 n/o Oso	Southbound	3+1H	7,600	1,700	.22	7,600	4,550	.60	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,660	.30	5,600	4,050	.72	D
SR 241 n/o Ortega	Southbound	2+1H	5,600	1,390	.25	5,600	2,950	.53	C
SR 241 n/o Hermosa	Southbound	2+1H	5,600	1,680	.30	5,600	3,030	.54	C
SR 241 n/o Del Cerro	Southbound	2+1H	5,600	1,680	.30	5,600	3,070	.55	C
SR 241 n/o I-5	Southbound	2+1H	5,600	1,880	.34	5,600	3,430	.61	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-23

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,000	.84	21,500	15,480	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,910	.87	19,500	13,460	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,390	1.06	15,500	12,220	.79	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,700	1.01	11,600	10,150	.88	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,340	.98	9,600	9,190	.96	E
I-5 n/o Oso	Northbound	4+1H	9,600	10,010	1.04	9,600	9,100	.95	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,640	.82	9,600	8,480	.88	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,880	.72	9,600	6,600	.69	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,570	.68	9,600	6,160	.64	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,100	.89	13,600	10,150	.75	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,070	.95	11,600	9,650	.83	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,050	1.05	9,600	8,830	.92	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,880	1.03	9,600	9,030	.94	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,050	.94	9,600	7,970	.83	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,110	.95	9,600	8,620	.90	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,310	.87	9,600	8,560	.89	D
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,670	.72	10,600	7,880	.74	D
I-5 n/o El Camino Real	Northbound	7	14,000	9,770	.70	14,000	10,290	.74	D
I-5 n/o Cristianitos	Northbound	5	10,000	6,840	.68	10,000	7,350	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,320	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,260	.65	9,600	4,460	.46	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,530	.58	9,600	3,990	.42	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	9,390	.98	9,600	4,320	.45	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	7,000	.92	7,600	3,440	.45	B
SR 241 n/o Oso	Northbound	3+1H	7,600	5,450	.72	7,600	2,810	.37	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,190	.75	5,600	2,610	.47	B

Table D-23 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Ortega	Northbound	2+1H	5,600	3,730	.67	5,600	2,820	.50	B
SR 241 n/o Hermosa	Northbound	2+1H	5,600	2,710	.48	5,600	3,110	.56	C
SR 241 n/o Del Cerro	Northbound	2+1H	5,600	2,370	.42	5,600	2,710	.48	B
SR 241 n/o I-5	Northbound	2+1H	5,600	2,470	.44	5,600	2,880	.51	C
I-5 n/o Bake	Southbound	9+2H	21,500	14,350	.67	21,500	16,720	.78	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,470	.64	19,500	14,990	.77	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,740	.69	15,500	14,190	.92	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,380	.98	10,600	12,270	1.16	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,620	.90	10,600	10,270	.97	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,240	.86	9,600	9,390	.98	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,190	.85	10,600	8,890	.84	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,760	.70	9,600	6,630	.69	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,140	.64	9,600	6,070	.63	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	8,860	.65	13,600	11,890	.87	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,550	.74	11,600	11,160	.96	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,690	.80	9,600	9,690	1.01	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,420	.77	9,600	9,360	.98	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,420	.77	9,600	9,360	.98	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	7,920	.83	9,600	9,280	.97	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	7,830	.82	9,600	8,740	.91	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,010	.66	10,600	8,010	.76	D
I-5 n/o El Camino Real	Southbound	7	14,000	8,250	.59	14,000	11,030	.79	D
I-5 n/o Cristianitos	Southbound	5	10,000	6,120	.61	10,000	7,450	.75	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,080	.76	8,000	7,560	.95	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,080	.63	9,600	7,560	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,130	.33	9,600	6,560	.68	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,720	.28	9,600	5,820	.61	C

Table D-23 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,280	.24	9,600	8,290	.86	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,830	.24	7,600	6,720	.88	D
SR 241 n/o Oso	Southbound	3+1H	7,600	1,570	.21	7,600	5,240	.69	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,230	.22	5,600	4,390	.78	D
SR 241 n/o Ortega	Southbound	2+1H	5,600	1,590	.28	5,600	3,800	.68	C
SR 241 n/o Hermosa	Southbound	2+1H	5,600	2,260	.40	5,600	3,090	.55	C
SR 241 n/o Del Cerro	Southbound	2+1H	5,600	1,950	.35	5,600	3,070	.55	C
SR 241 n/o I-5	Southbound	2+1H	5,600	1,950	.35	5,600	3,380	.60	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-24

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	16,170	.75	21,500	13,290	.62	C
I-5 n/o Lake Forest	Northbound	8+2H	19,500	15,540	.80	19,500	11,730	.60	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,920	1.02	15,500	10,740	.69	C
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	11,930	.95	11,600	9,260	.80	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,350	.98	9,600	8,440	.88	D
I-5 n/o Oso	Northbound	4+1H	9,600	9,640	1.00	9,600	8,240	.86	D
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,480	.80	9,600	7,690	.80	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,710	.70	9,600	5,800	.60	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,380	.66	9,600	5,220	.54	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,190	.90	13,600	9,830	.72	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,040	.95	11,600	9,360	.81	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,020	1.04	9,600	8,540	.89	D
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,880	1.03	9,600	8,730	.91	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,020	.94	9,600	7,550	.79	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,000	.94	9,600	8,160	.85	D
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,210	.86	9,600	8,110	.84	D
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,570	.71	10,600	7,430	.70	C
I-5 n/o El Camino Real	Northbound	7	14,000	9,780	.70	14,000	10,340	.74	D
I-5 n/o Cristianitos	Northbound	5	10,000	6,860	.69	10,000	7,350	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,320	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,680	.70	9,600	5,260	.55	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,810	.61	9,600	4,620	.48	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	10,420	1.09	9,600	6,300	.66	C
SR 241 n/o Antonio	Northbound	3+1H	7,600	7,470	.98	7,600	4,540	.60	C
SR 241 n/o Oso	Northbound	3+1H	7,600	5,830	.77	7,600	3,670	.48	B
SR 241 s/o Oso	Northbound	3+1H	7,600	5,070	.67	7,600	3,680	.48	B

Table D-24 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Ortega	Northbound	3+1H	7,600	4,650	.61	7,600	4,010	.53	C
SR 241 n/o Hermosa	Northbound	3+1H	7,600	3,050	.40	7,600	3,920	.52	C
SR 241 n/o Del Cerro	Northbound	3+1H	7,600	2,640	.35	7,600	3,370	.44	B
SR 241 n/o I-5	Northbound	3+1H	7,600	2,530	.33	7,600	3,330	.44	B
I-5 n/o Bake	Southbound	9+2H	21,500	12,380	.58	21,500	15,900	.74	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	10,890	.56	19,500	15,170	.78	D
I-5 n/o El Toro	Southbound	6+2H	15,500	9,330	.60	15,500	13,760	.89	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	8,430	.88	10,600	11,830	1.12	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	7,760	.81	10,600	10,190	.96	E
I-5 n/o Oso	Southbound	4+1H	9,600	7,240	.75	9,600	9,370	.98	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	7,130	.74	10,600	8,890	.84	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	5,660	.59	9,600	6,580	.69	C
I-5 n/o SR 73	Southbound	4+1H	9,600	4,970	.52	9,600	6,020	.63	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	8,480	.62	13,600	11,840	.87	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,180	.71	11,600	11,050	.95	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,330	.76	9,600	9,640	1.00	E
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,030	.73	9,600	9,320	.97	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,030	.73	9,600	9,320	.97	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	7,480	.78	9,600	9,190	.96	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	7,400	.77	9,600	8,660	.90	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	6,630	.63	10,600	7,880	.74	D
I-5 n/o El Camino Real	Southbound	7	14,000	8,290	.59	14,000	11,070	.79	D
I-5 n/o Cristianitos	Southbound	5	10,000	6,120	.61	10,000	7,450	.75	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,080	.76	8,000	7,560	.95	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,080	.63	9,600	7,560	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	4,120	.43	9,600	6,720	.70	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,510	.37	9,600	5,820	.61	C

Table D-24 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	4,070	.42	9,600	9,450	.98	E
SR 241 n/o Antonio	Southbound	3+1H	7,600	3,090	.41	7,600	7,330	.96	E
SR 241 n/o Oso	Southbound	3+1H	7,600	2,430	.32	7,600	5,660	.74	D
SR 241 s/o Oso	Southbound	3+1H	7,600	2,250	.30	7,600	5,340	.70	C
SR 241 n/o Ortega	Southbound	3+1H	7,600	2,720	.36	7,600	4,740	.62	C
SR 241 n/o Hermosa	Southbound	3+1H	7,600	3,090	.41	7,600	3,550	.47	B
SR 241 n/o Del Cerro	Southbound	3+1H	7,600	2,630	.35	7,600	3,430	.45	B
SR 241 n/o I-5	Southbound	3+1H	7,600	2,370	.31	7,600	3,540	.47	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-25

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,660	.82	21,500	15,760	.73	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,630	.85	19,500	13,640	.70	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,090	1.04	15,500	12,340	.80	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,420	.99	11,600	10,260	.88	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,150	.96	9,600	9,340	.97	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,880	1.03	9,600	9,160	.95	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,560	.81	9,600	8,620	.90	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,890	.72	9,600	7,070	.74	D
I-5 n/o SR 73	Northbound	4+1H	9,600	6,800	.71	9,600	6,620	.69	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,130	.89	13,600	10,930	.80	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,220	.97	11,600	10,200	.88	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,300	1.07	9,600	9,410	.98	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,110	1.05	9,600	9,640	1.00	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,290	.97	9,600	8,610	.90	E
I-5 n/o Estrella	Northbound	4+1A	8,500	9,580	1.13	8,500	9,130	1.07	F
I-5 n/o Hermosa	Northbound	4	8,000	8,530	1.07	8,000	8,690	1.09	F
I-5 n/o Pico	Northbound	4+1A	9,000	8,710	.97	9,000	8,740	.97	E
I-5 n/o El Camino Real	Northbound	4	8,000	9,610	1.20	8,000	10,090	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,960	.62	9,600	4,580	.48	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,330	.56	9,600	4,310	.45	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,240	.86	9,600	3,620	.38	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,020	.79	7,600	2,810	.37	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,470	.59	7,600	2,250	.30	A
SR 241 s/o Oso	Northbound	2+1H	5,600	3,930	.70	5,600	2,340	.42	B

Table D-25 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Ortega	Northbound	2+1H	5,600	2,580	.46	5,600	1,860	.33	B
SR 241 n/o Hermosa	Northbound	2	4,000	2,750	.69	4,000	2,460	.62	C
I-5 n/o Bake	Southbound	9+2H	21,500	14,630	.68	21,500	16,780	.78	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,680	.65	19,500	14,890	.76	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,880	.70	15,500	13,970	.90	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,530	.99	10,600	12,100	1.14	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,760	.91	10,600	10,280	.97	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,430	.88	9,600	9,310	.97	E
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,410	.88	9,600	8,750	.91	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,110	.74	9,600	6,840	.71	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,690	.70	9,600	6,490	.68	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,790	.72	13,600	12,070	.89	D
I-5 n/o Ortega	Southbound	5+1H	11,600	9,250	.80	11,600	11,360	.98	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,390	.87	9,600	10,130	1.06	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	8,080	.84	9,600	9,900	1.03	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	8,080	.84	9,600	9,900	1.03	F
I-5 n/o Estrella	Southbound	4+1A	8,000	8,340	1.04	8,000	9,960	1.25	F
I-5 n/o Hermosa	Southbound	4	8,000	8,060	1.01	8,000	9,140	1.14	F
I-5 n/o Pico	Southbound	4+1A	9,000	7,900	.88	9,000	9,210	1.02	F
I-5 n/o El Camino Real	Southbound	4	8,000	8,090	1.01	8,000	10,820	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,460	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basitone	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 s/o Basitone	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,360	.35	9,600	6,160	.64	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,100	.32	9,600	5,580	.58	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,890	.20	9,600	6,890	.72	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,480	.19	7,600	5,460	.72	D

Table D-25 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,280	.17	7,600	4,160	.55	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,230	.22	5,600	3,740	.67	C
SR 241 n/o Ortega	Southbound	2+1H	5,600	960	.17	5,600	2,550	.46	B
SR 241 n/o Hermosa	Southbound	2	4,000	1,590	.40	4,000	2,900	.73	D

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-26

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
(BULDOZT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,750	.83	21,500	15,800	.73	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,740	.86	19,500	13,690	.70	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,140	1.04	15,500	12,420	.80	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,510	.99	11,600	10,350	.89	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,220	.96	9,600	9,430	.98	E
I-5 n/o Oso	Northbound	4+1H	9,600	10,040	1.05	9,600	9,300	.97	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,800	.83	9,600	8,660	.90	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,120	.74	9,600	7,050	.73	D
I-5 n/o SR 73	Northbound	4+1H	9,600	6,830	.71	9,600	6,540	.68	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,360	.91	13,600	10,800	.79	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,320	.98	11,600	10,280	.89	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,250	1.07	9,600	9,410	.98	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,000	1.04	9,600	9,580	1.00	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,190	.96	9,600	8,600	.90	E
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,490	.99	9,600	9,240	.96	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,750	.91	9,600	9,090	.95	E
I-5 n/o Pico	Northbound	4+1H+1A	10,600	8,990	.85	10,600	9,140	.86	D
I-5 n/o El Camino Real	Northbound	4	8,000	9,610	1.20	8,000	10,090	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,250	.65	9,600	4,690	.49	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,530	.58	9,600	4,260	.44	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	7,910	.82	9,600	3,410	.36	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	5,690	.75	7,600	2,580	.34	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,110	.54	7,600	2,020	.27	A
SR 241 s/o Oso	Northbound	2+1H	5,600	3,520	.63	5,600	2,060	.37	B

Table D-26 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Ortega	Northbound	2+1H	5,600	2,170	.39	5,600	1,570	.28	A
SR 241 n/o Hermosa	Northbound	2	4,000	1,950	.49	4,000	1,580	.40	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,630	.68	21,500	16,880	.79	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,680	.65	19,500	14,990	.77	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,880	.70	15,500	14,090	.91	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,540	.99	10,600	12,220	1.15	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,760	.91	10,600	10,400	.98	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,440	.88	9,600	9,500	.99	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,420	.88	10,600	8,970	.85	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,060	.74	9,600	7,050	.73	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,480	.68	9,600	6,440	.67	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,430	.69	13,600	12,210	.90	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,140	.79	11,600	11,450	.99	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,220	.86	9,600	10,110	1.05	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,930	.83	9,600	9,790	1.02	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,930	.83	9,600	9,790	1.02	F
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,400	.88	9,600	9,840	1.03	F
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,300	.86	9,600	9,340	.97	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	8,090	.76	10,600	9,610	.91	E
I-5 n/o El Camino Real	Southbound	4	8,000	8,120	1.02	8,000	10,810	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,450	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basitone	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basitone	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,340	.35	9,600	6,530	.68	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,950	.31	9,600	5,770	.60	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,900	.20	9,600	6,550	.68	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,460	.19	7,600	5,120	.67	C

Table D-26 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,240	.16	7,600	3,870	.51	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,140	.20	5,600	3,320	.59	C
SR 241 n/o Ortega	Southbound	2+1H	5,600	850	.15	5,600	2,160	.39	B
SR 241 n/o Hermosa	Southbound	2	4,000	930	.23	4,000	1,940	.49	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-27

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,070	.84	21,500	16,080	.75	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,080	.88	19,500	13,880	.71	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,500	1.07	15,500	12,640	.82	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,950	1.03	11,600	10,570	.91	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,680	1.01	9,600	9,730	1.01	F
I-5 n/o Oso	Northbound	4+1H	9,600	10,410	1.08	9,600	9,640	1.00	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,120	.86	9,600	9,140	.95	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,600	.79	9,600	7,740	.81	D
I-5 n/o SR 73	Northbound	4+1H	9,600	7,430	.77	9,600	7,280	.76	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	13,200	.97	13,600	12,040	.89	D
I-5 n/o Ortega	Northbound	5+1H	11,600	12,240	1.06	11,600	11,150	.96	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	11,610	1.21	9,600	10,610	1.11	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	11,540	1.20	9,600	10,800	1.13	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	10,740	1.12	9,600	9,860	1.03	F
I-5 n/o Estrella	Northbound	4+1A	8,500	11,330	1.33	8,500	10,520	1.24	F
I-5 n/o Hermosa	Northbound	4	8,000	10,120	1.27	8,000	9,990	1.25	F
I-5 n/o Pico	Northbound	4+1A	9,000	9,450	1.05	9,000	9,390	1.04	F
I-5 n/o El Camino Real	Northbound	4	8,000	9,590	1.20	8,000	10,060	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,460	.67	9,600	5,060	.53	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,770	.60	9,600	4,760	.50	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	7,140	.74	9,600	2,580	.27	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	4,870	.64	7,600	1,690	.22	A
SR 241 n/o Oso	Northbound	3+1H	7,600	3,170	.42	7,600	1,040	.14	A
SR 241 s/o Oso	Northbound	2+1H	5,600	2,430	.43	5,600	930	.17	A

Table D-27 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Ortega	Northbound	2	4,000	760	.19	4,000	190	.05	A
I-5 n/o Bake	Southbound	9+2H	21,500	14,740	.69	21,500	17,370	.81	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,730	.65	19,500	15,470	.79	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,960	.71	15,500	14,490	.93	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,620	1.00	10,600	12,660	1.19	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,890	.93	10,600	10,910	1.03	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,590	.89	9,600	9,980	1.04	F
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,620	.90	9,600	9,440	.98	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,420	.77	9,600	7,680	.80	D
I-5 n/o SR 73	Southbound	4+1H	9,600	7,090	.74	9,600	7,260	.76	D
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	10,310	.76	13,600	13,280	.98	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,760	.84	11,600	12,450	1.07	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	9,060	.94	9,600	11,570	1.21	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	8,790	.92	9,600	11,440	1.19	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	8,790	.92	9,600	11,440	1.19	F
I-5 n/o Estrella	Southbound	4+1A	8,000	9,020	1.13	8,000	11,820	1.48	F
I-5 n/o Hermosa	Southbound	4	8,000	8,600	1.08	8,000	10,860	1.36	F
I-5 n/o Pico	Southbound	4+1A	9,000	8,020	.89	9,000	10,000	1.11	F
I-5 n/o El Camino Real	Southbound	4	8,000	8,090	1.01	8,000	10,810	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,460	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 s/o Basiline	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,500	.36	9,600	6,690	.70	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,220	.34	9,600	6,020	.63	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,590	.17	9,600	5,520	.58	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,070	.14	7,600	4,020	.53	C
SR 241 n/o Oso	Southbound	3+1H	7,600	780	.10	7,600	2,650	.35	B

Table D-27 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 s/o Oso	Southbound	2+1H	5,600	560	.10	5,600	2,060	.37	B
SR 241 n/o Ortega	Southbound	2	4,000	150	.04	4,000	720	.18	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-28

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(BULDOZT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,990	.84	21,500	16,000	.74	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,010	.87	19,500	13,890	.71	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,410	1.06	15,500	12,610	.81	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,840	1.02	11,600	10,500	.91	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,550	1.00	9,600	9,650	1.01	F
I-5 n/o Oso	Northbound	4+1H	9,600	10,380	1.08	9,600	9,540	.99	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,150	.86	9,600	8,930	.93	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,510	.78	9,600	7,370	.77	D
I-5 n/o SR 73	Northbound	4+1H	9,600	7,150	.74	9,600	6,880	.72	D
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,920	.95	13,600	11,360	.84	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,930	1.03	11,600	10,760	.93	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,940	1.14	9,600	10,050	1.05	F
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,780	1.12	9,600	10,210	1.06	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,970	1.04	9,600	9,270	.97	E
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	10,270	1.07	9,600	9,900	1.03	F
I-5 n/o Hermosa	Northbound	4+1H	9,600	9,540	.99	9,600	9,710	1.01	F
I-5 n/o Pico	Northbound	4+1H+1A	10,600	9,410	.89	10,600	9,550	.90	E
I-5 n/o El Camino Real	Northbound	4	8,000	9,570	1.20	8,000	10,080	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,450	.67	9,600	4,920	.51	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,770	.60	9,600	4,480	.47	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	7,240	.75	9,600	2,840	.30	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	4,970	.65	7,600	1,950	.26	A
SR 241 n/o Oso	Northbound	3+1H	7,600	3,320	.44	7,600	1,340	.18	A
SR 241 s/o Oso	Northbound	2+1H	5,600	2,610	.47	5,600	1,280	.23	A

Table D-28 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Ortega	Northbound	2	4,000	1,080	.27	4,000	670	.17	A
I-5 n/o Bake	Southbound	9+2H	21,500	14,690	.68	21,500	17,270	.80	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,750	.65	19,500	15,370	.79	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,960	.71	15,500	14,420	.93	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,620	1.00	10,600	12,540	1.18	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,850	.92	10,600	10,770	1.02	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,540	.89	9,600	9,890	1.03	F
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,550	.89	10,600	9,350	.88	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,210	.75	9,600	7,460	.78	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,640	.69	9,600	6,830	.71	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,700	.71	13,600	12,780	.94	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,400	.81	11,600	11,920	1.03	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,530	.89	9,600	10,810	1.13	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	8,280	.86	9,600	10,570	1.10	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	8,280	.86	9,600	10,570	1.10	F
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,700	.91	9,600	10,680	1.11	F
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,610	.90	9,600	10,150	1.06	F
I-5 n/o Pico	Southbound	4+1H+1A	10,600	8,210	.77	10,600	10,070	.95	E
I-5 n/o El Camino Real	Southbound	4	8,000	8,120	1.02	8,000	10,800	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,450	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,450	.36	9,600	6,650	.69	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,060	.32	9,600	5,950	.62	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,660	.17	9,600	5,780	.60	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,170	.15	7,600	4,290	.56	C
SR 241 n/o Oso	Southbound	3+1H	7,600	910	.12	7,600	2,940	.39	B

Table D-28 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 s/o Oso	Southbound	2+1H	5,600	720	.13	5,600	2,370	.42	B
SR 241 n/o Ortega	Southbound	2	4,000	390	.10	4,000	1,050	.26	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-29

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,510	.81	21,500	15,450	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,490	.85	19,500	13,340	.68	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,900	1.02	15,500	12,070	.78	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,220	.97	11,600	9,990	.86	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	9,930	.94	9,600	9,040	.94	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,740	1.01	9,600	8,880	.93	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,350	.79	9,600	8,340	.87	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,660	.69	9,600	6,770	.71	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,620	.69	9,600	6,360	.66	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	11,730	.86	13,600	10,380	.76	D
I-5 n/o Ortega	Northbound	5+1H	11,600	10,850	.94	11,600	9,690	.84	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	9,940	1.04	9,600	8,870	.92	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,750	1.02	9,600	9,110	.95	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	8,930	.93	9,600	8,020	.84	D
I-5 n/o Estrella	Northbound	4+1A	8,500	9,160	1.08	8,500	8,550	1.01	F
I-5 n/o Hermosa	Northbound	4	8,000	8,110	1.01	8,000	8,290	1.04	F
I-5 n/o Pico	Northbound	4+1A	9,000	7,330	.81	9,000	7,480	.83	D
I-5 n/o El Camino Real	Northbound	7	14,000	9,760	.70	14,000	10,270	.73	D
I-5 n/o Cristianitos	Northbound	5	10,000	6,840	.68	10,000	7,350	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,710	.59	9,600	4,270	.44	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,110	.53	9,600	4,020	.42	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,670	.90	9,600	4,250	.44	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,480	.85	7,600	3,480	.46	B
SR 241 n/o Oso	Northbound	3+1H	7,600	5,000	.66	7,600	2,920	.38	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,580	.82	5,600	3,110	.56	C

Table D-29 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2+1H	5,600	3,660	.65	5,600	2,750	.49	B
SR 241 n/o Hermosa	Northbound	2+1H	5,600	3,340	.60	5,600	3,250	.58	C
SR 241 n/o Del Cerro	Northbound	2+1H	5,600	2,700	.48	5,600	2,810	.50	B
SR 241 n/o I-5	Northbound	2+1H	5,600	2,770	.49	5,600	2,990	.53	C
I-5 n/o Bake	Southbound	9+2H	21,500	14,400	.67	21,500	16,450	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,430	.64	19,500	14,610	.75	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,650	.69	15,500	13,690	.88	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,300	.97	10,600	11,810	1.11	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,510	.89	10,600	9,940	.94	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,150	.85	9,600	9,020	.94	E
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,130	.85	9,600	8,380	.87	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,790	.71	9,600	6,470	.67	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,350	.66	9,600	6,150	.64	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,250	.68	13,600	11,510	.85	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,710	.75	11,600	10,860	.94	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,810	.81	9,600	9,550	.99	E
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,520	.78	9,600	9,330	.97	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,520	.78	9,600	9,330	.97	E
I-5 n/o Estrella	Southbound	4+1A	8,000	7,830	.98	8,000	9,370	1.17	F
I-5 n/o Hermosa	Southbound	4	8,000	7,680	.96	8,000	8,600	1.08	F
I-5 n/o Pico	Southbound	4+1A	9,000	6,900	.77	9,000	7,660	.85	D
I-5 n/o El Camino Real	Southbound	7	14,000	8,240	.59	14,000	11,040	.79	D
I-5 n/o Cristianitos	Southbound	5	10,000	6,140	.61	10,000	7,460	.75	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basilone	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 s/o Basilone	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,150	.33	9,600	5,900	.61	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,900	.30	9,600	5,350	.56	C

Table D-29 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-TV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,430	.25	9,600	7,590	.79	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	2,040	.27	7,600	6,180	.81	D
SR 241 n/o Oso	Southbound	3+1H	7,600	1,850	.24	7,600	4,930	.65	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,890	.34	5,600	4,580	.82	D
SR 241 n/o North River	Southbound	2+1H	5,600	1,660	.30	5,600	3,700	.66	C
SR 241 n/o Hermosa	Southbound	2+1H	5,600	2,240	.40	5,600	3,650	.65	C
SR 241 n/o Del Cerro	Southbound	2+1H	5,600	1,930	.34	5,600	3,270	.58	C
SR 241 n/o I-5	Southbound	2+1H	5,600	1,890	.34	5,600	3,540	.63	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-30

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,550	.82	21,500	15,540	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,550	.85	19,500	13,420	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,970	1.03	15,500	12,120	.78	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,320	.98	11,600	10,040	.87	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,020	.95	9,600	9,100	.95	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,850	1.03	9,600	8,920	.93	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,580	.81	9,600	8,330	.87	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,890	.72	9,600	6,700	.70	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,630	.69	9,600	6,220	.65	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	11,980	.88	13,600	10,260	.75	D
I-5 n/o Ortega	Northbound	5+1H	11,600	10,980	.95	11,600	9,780	.84	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	9,910	1.03	9,600	8,910	.93	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,720	1.01	9,600	9,070	.94	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	8,870	.92	9,600	8,040	.84	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,090	.95	9,600	8,700	.91	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,320	.87	9,600	8,620	.90	E
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,700	.73	10,600	7,990	.75	D
I-5 n/o El Camino Real	Northbound	7	14,000	9,750	.70	14,000	10,270	.73	D
I-5 n/o Cristianitos	Northbound	5	10,000	6,840	.68	10,000	7,350	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,020	.63	9,600	4,460	.46	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,350	.56	9,600	4,040	.42	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,350	.87	9,600	4,020	.42	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,120	.81	7,600	3,220	.42	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,590	.60	7,600	2,660	.35	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,100	.73	5,600	2,780	.50	B

Table D-30 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2+1H	5,600	3,250	.58	5,600	2,420	.43	B
SR 241 n/o Hermosa	Northbound	2+1H	5,600	2,710	.48	5,600	2,470	.44	B
SR 241 n/o Del Cerro	Northbound	2+1H	5,600	2,340	.42	5,600	2,350	.42	B
SR 241 n/o I-5	Northbound	2+1H	5,600	2,510	.45	5,600	2,720	.49	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,450	.67	21,500	16,580	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,450	.64	19,500	14,720	.75	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,680	.69	15,500	13,820	.89	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,330	.97	10,600	11,950	1.13	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,550	.89	10,600	10,090	.95	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,190	.85	9,600	9,210	.96	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,170	.85	10,600	8,660	.82	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,780	.71	9,600	6,740	.70	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,190	.64	9,600	6,130	.64	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,000	.66	13,600	11,680	.86	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,710	.75	11,600	11,020	.95	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,780	.81	9,600	9,590	1.00	E
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,480	.78	9,600	9,250	.96	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,480	.78	9,600	9,250	.96	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	7,960	.83	9,600	9,260	.96	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	7,880	.82	9,600	8,750	.91	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,210	.68	10,600	8,130	.77	D
I-5 n/o El Camino Real	Southbound	7	14,000	8,220	.59	14,000	11,030	.79	D
I-5 n/o Cristianitos	Southbound	5	10,000	6,140	.61	10,000	7,460	.75	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,190	.33	9,600	6,190	.64	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,810	.29	9,600	5,550	.58	C

Table D-30 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,310	.24	9,600	7,200	.75	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,890	.25	7,600	5,780	.76	D
SR 241 n/o Oso	Southbound	3+1H	7,600	1,680	.22	7,600	4,530	.60	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,670	.30	5,600	4,110	.73	D
SR 241 n/o North River	Southbound	2+1H	5,600	1,430	.26	5,600	3,250	.58	C
SR 241 n/o Hermosa	Southbound	2+1H	5,600	1,580	.28	5,600	2,940	.53	C
SR 241 n/o Del Cerro	Southbound	2+1H	5,600	1,530	.27	5,600	2,840	.51	C
SR 241 n/o I-5	Southbound	2+1H	5,600	1,730	.31	5,600	3,250	.58	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-31

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	16,190	.75	21,500	13,320	.62	C
I-5 n/o Lake Forest	Northbound	8+2H	19,500	15,570	.80	19,500	11,750	.60	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,930	1.02	15,500	10,760	.69	C
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,030	.95	11,600	9,280	.80	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,400	.98	9,600	8,490	.88	D
I-5 n/o Oso	Northbound	4+1H	9,600	9,630	1.00	9,600	8,290	.86	D
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,530	.80	9,600	7,750	.81	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,700	.70	9,600	5,880	.61	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,360	.66	9,600	5,320	.55	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,340	.91	13,600	9,960	.73	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,170	.96	11,600	9,470	.82	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,030	1.04	9,600	8,580	.89	D
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,820	1.02	9,600	8,770	.91	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	8,960	.93	9,600	7,620	.79	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	8,960	.93	9,600	8,260	.86	D
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,130	.85	9,600	8,200	.85	D
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,510	.71	10,600	7,550	.71	C
I-5 n/o El Camino Real	Northbound	7	14,000	9,790	.70	14,000	10,350	.74	D
I-5 n/o Cristianitos	Northbound	5	10,000	6,860	.69	10,000	7,350	.74	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,320	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,790	.71	9,600	5,300	.55	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,980	.62	9,600	4,640	.48	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	10,350	1.08	9,600	6,170	.64	C
SR 241 n/o Antonio	Northbound	3+1H	7,600	7,380	.97	7,600	4,410	.58	C
SR 241 n/o Oso	Northbound	3+1H	7,600	5,520	.73	7,600	3,570	.47	B
SR 241 s/o Oso	Northbound	3+1H	7,600	4,580	.60	7,600	3,360	.44	B

Table D-31 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Ortega	Northbound	3+1H	7,600	3,520	.46	7,600	3,610	.48	B
SR 241 n/o Hermosa	Northbound	3+1H	7,600	3,100	.41	7,600	3,420	.45	B
SR 241 n/o Del Cerro	Northbound	3+1H	7,600	2,570	.34	7,600	3,100	.41	B
SR 241 n/o I-5	Northbound	3+1H	7,600	2,610	.34	7,600	3,210	.42	B
I-5 n/o Bake	Southbound	9+2H	21,500	12,390	.58	21,500	15,900	.74	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	10,890	.56	19,500	15,060	.77	D
I-5 n/o El Toro	Southbound	6+2H	15,500	9,340	.60	15,500	13,710	.88	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	8,440	.88	10,600	11,820	1.12	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	7,770	.81	10,600	10,210	.96	E
I-5 n/o Oso	Southbound	4+1H	9,600	7,260	.76	9,600	9,390	.98	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	7,160	.75	10,600	8,950	.84	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	5,690	.59	9,600	6,610	.69	C
I-5 n/o SR 73	Southbound	4+1H	9,600	5,010	.52	9,600	6,060	.63	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	8,530	.63	13,600	11,940	.88	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,230	.71	11,600	11,150	.96	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,350	.77	9,600	9,660	1.01	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,030	.73	9,600	9,310	.97	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,030	.73	9,600	9,310	.97	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	7,510	.78	9,600	9,160	.95	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	7,420	.77	9,600	8,620	.90	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	6,730	.63	10,600	7,990	.75	D
I-5 n/o El Camino Real	Southbound	7	14,000	8,270	.59	14,000	11,090	.79	D
I-5 n/o Cristianitos	Southbound	5	10,000	6,120	.61	10,000	7,450	.75	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,080	.76	8,000	7,560	.95	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,080	.63	9,600	7,560	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	4,120	.43	9,600	6,770	.71	C
SR 73 n/o I-5	Southbound	4+1H	9,600	3,520	.37	9,600	5,870	.61	C

Table D-31 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	4,080	.43	9,600	9,440	.98	E
SR 241 n/o Antonio	Southbound	3+1H	7,600	3,090	.41	7,600	7,270	.96	E
SR 241 n/o Oso	Southbound	3+1H	7,600	2,450	.32	7,600	5,580	.73	D
SR 241 s/o Oso	Southbound	3+1H	7,600	2,240	.29	7,600	4,870	.64	C
SR 241 n/o Ortega	Southbound	3+1H	7,600	2,720	.36	7,600	4,020	.53	C
SR 241 n/o Hermosa	Southbound	3+1H	7,600	2,700	.36	7,600	3,460	.46	B
SR 241 n/o Del Cerro	Southbound	3+1H	7,600	2,270	.30	7,600	3,170	.42	B
SR 241 n/o I-5	Southbound	3+1H	7,600	2,270	.30	7,600	3,420	.45	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-32

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,470	.81	21,500	15,370	.71	C
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,450	.84	19,500	13,290	.68	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,870	1.02	15,500	12,010	.77	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,200	.97	11,600	9,950	.86	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	9,920	.94	9,600	9,050	.94	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,720	1.01	9,600	8,910	.93	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,330	.79	9,600	8,400	.88	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,660	.69	9,600	6,870	.72	D
I-5 n/o SR 73	Northbound	4+1H	9,600	6,620	.69	9,600	6,460	.67	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	11,710	.86	13,600	10,270	.76	D
I-5 n/o Ortega	Northbound	5+1H	11,600	10,860	.94	11,600	9,580	.83	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	9,960	1.04	9,600	8,820	.92	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,760	1.02	9,600	9,070	.94	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	8,930	.93	9,600	7,920	.83	D
I-5 n/o Estrella	Northbound	4+1A	8,500	9,210	1.08	8,500	8,490	1.00	E
I-5 n/o Hermosa	Northbound	4	8,000	8,100	1.01	8,000	8,170	1.02	F
I-5 n/o Pico	Northbound	4+1A	9,000	7,510	.83	9,000	7,690	.85	D
I-5 n/o El Camino Real	Northbound	4	8,000	7,370	.92	8,000	7,860	.98	E
I-5 n/o Cristianitos	Northbound	4	8,000	4,930	.62	8,000	5,570	.70	C
I-5 s/o Cristianitos	Northbound	4	8,000	4,790	.60	8,000	5,190	.65	C
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,680	.59	9,600	4,070	.42	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,090	.53	9,600	3,800	.40	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,700	.91	9,600	4,430	.46	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,510	.86	7,600	3,650	.48	B
SR 241 n/o Oso	Northbound	3+1H	7,600	5,020	.66	7,600	3,080	.41	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,590	.82	5,600	3,250	.58	C
SR 241 n/o North River	Northbound	2+1H	5,600	3,720	.66	5,600	2,890	.52	C

Table D-32 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Pico	Northbound	2+1H	5,600	3,280	.59	5,600	3,220	.58	C
SR 241 n/o Cristianitos	Northbound	2+1H	5,600	2,410	.43	5,600	2,390	.43	B
SR 241 n/o I-5	Northbound	2+1H	5,600	2,180	.39	5,600	2,120	.38	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,260	.66	21,500	16,400	.76	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,330	.63	19,500	14,530	.75	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,580	.68	15,500	13,590	.88	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,250	.96	10,600	11,730	1.11	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,430	.88	10,600	9,880	.93	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,060	.84	9,600	9,020	.94	E
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,050	.84	9,600	8,410	.88	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,710	.70	9,600	6,540	.68	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,280	.65	9,600	6,250	.65	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,150	.67	13,600	11,380	.84	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,610	.74	11,600	10,740	.93	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,760	.81	9,600	9,500	.99	E
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,470	.78	9,600	9,230	.96	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,470	.78	9,600	9,230	.96	E
I-5 n/o Estrella	Southbound	4+1A	8,000	7,800	.98	8,000	9,280	1.16	F
I-5 n/o Hermosa	Southbound	4	8,000	7,600	.95	8,000	8,390	1.05	F
I-5 n/o Pico	Southbound	4+1A	9,000	6,990	.78	9,000	7,730	.86	D
I-5 n/o El Camino Real	Southbound	4	8,000	6,810	.85	8,000	7,940	.99	E
I-5 n/o Cristianitos	Southbound	4	8,000	5,110	.64	8,000	4,950	.62	C
I-5 s/o Cristianitos	Southbound	4	8,000	4,980	.62	8,000	4,900	.61	C
I-5 s/o Basiline	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,120	.33	9,600	5,730	.60	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,870	.30	9,600	5,130	.53	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,570	.27	9,600	7,760	.81	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	2,180	.29	7,600	6,350	.84	D

Table D-32 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,980	.26	7,600	5,080	.67	C
SR 241 s/o Oso	Southbound	2+1H	5,600	2,010	.36	5,600	4,780	.85	D
SR 241 n/o North River	Southbound	2+1H	5,600	1,760	.31	5,600	3,890	.69	C
SR 241 n/o Pico	Southbound	2+1H	5,600	2,210	.39	5,600	3,800	.68	C
SR 241 n/o Cristianitos	Southbound	2+1H	5,600	1,410	.25	5,600	3,070	.55	C
SR 241 n/o I-5	Southbound	2+1H	5,600	1,130	.20	5,600	2,660	.48	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-33

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,530	.82	21,500	15,460	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,520	.85	19,500	13,340	.68	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,940	1.03	15,500	12,080	.78	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,300	.98	11,600	10,000	.86	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,000	.94	9,600	9,060	.94	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,840	1.03	9,600	8,910	.93	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,580	.81	9,600	8,320	.87	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,880	.72	9,600	6,700	.70	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,630	.69	9,600	6,230	.65	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	11,930	.88	13,600	10,160	.75	D
I-5 n/o Ortega	Northbound	5+1H	11,600	10,910	.94	11,600	9,700	.84	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	9,880	1.03	9,600	8,830	.92	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,680	1.01	9,600	9,000	.94	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	8,840	.92	9,600	7,950	.83	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,080	.95	9,600	8,630	.90	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,290	.86	9,600	8,520	.89	D
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,870	.74	10,600	8,100	.76	D
I-5 n/o El Camino Real	Northbound	4	8,000	7,700	.96	8,000	8,190	1.02	F
I-5 n/o Cristianitos	Northbound	4	8,000	5,170	.65	8,000	5,840	.73	D
I-5 s/o Cristianitos	Northbound	4	8,000	5,070	.63	8,000	5,480	.69	C
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,960	.62	9,600	4,350	.45	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,300	.55	9,600	3,930	.41	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,390	.87	9,600	4,130	.43	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,160	.81	7,600	3,320	.44	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,610	.61	7,600	2,730	.36	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,140	.74	5,600	2,850	.51	C
SR 241 n/o North River	Northbound	2+1H	5,600	3,290	.59	5,600	2,490	.44	B

Table D-33 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Pico	Northbound	2+1H	5,600	2,610	.47	5,600	2,460	.44	B
SR 241 n/o Cristianitos	Northbound	2+1H	5,600	2,070	.37	5,600	2,030	.36	B
SR 241 n/o I-5	Northbound	2+1H	5,600	1,910	.34	5,600	1,830	.33	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,420	.67	21,500	16,530	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,440	.64	19,500	14,690	.75	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,660	.69	15,500	13,780	.89	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,320	.97	10,600	11,910	1.12	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,540	.89	10,600	10,070	.95	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,170	.85	9,600	9,200	.96	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,160	.85	10,600	8,640	.82	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,770	.71	9,600	6,710	.70	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,180	.64	9,600	6,130	.64	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	8,960	.66	13,600	11,600	.85	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,680	.75	11,600	10,930	.94	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,750	.81	9,600	9,500	.99	E
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,460	.78	9,600	9,150	.95	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,460	.78	9,600	9,150	.95	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	7,930	.83	9,600	9,160	.95	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	7,850	.82	9,600	8,640	.90	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,330	.69	10,600	8,290	.78	D
I-5 n/o El Camino Real	Southbound	4	8,000	7,100	.89	8,000	8,340	1.04	F
I-5 n/o Cristianitos	Southbound	4	8,000	5,310	.66	8,000	5,300	.66	C
I-5 s/o Cristianitos	Southbound	4	8,000	5,220	.65	8,000	5,320	.67	C
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,160	.33	9,600	6,220	.65	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,780	.29	9,600	5,470	.57	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,350	.24	9,600	7,310	.76	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,900	.25	7,600	5,860	.77	D

Table D-33 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,670	.22	7,600	4,570	.60	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,660	.30	5,600	4,200	.75	D
SR 241 n/o North River	Southbound	2+1H	5,600	1,410	.25	5,600	3,350	.60	C
SR 241 n/o Pico	Southbound	2+1H	5,600	1,520	.27	5,600	2,970	.53	C
SR 241 n/o Cristianitos	Southbound	2+1H	5,600	1,110	.20	5,600	2,630	.47	B
SR 241 n/o I-5	Southbound	2+1H	5,600	890	.16	5,600	2,240	.40	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-34

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,970	.84	21,500	15,460	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,910	.87	19,500	13,480	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,310	1.05	15,500	12,230	.79	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,600	1.00	11,600	10,140	.87	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,450	.99	9,600	9,210	.96	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,760	1.02	9,600	9,120	.95	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,740	.82	9,600	8,540	.89	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,930	.72	9,600	6,670	.69	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,600	.69	9,600	6,250	.65	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,200	.90	13,600	10,190	.75	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,130	.96	11,600	9,680	.83	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	9,990	1.04	9,600	8,820	.92	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,840	1.03	9,600	9,050	.94	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,020	.94	9,600	8,000	.83	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,090	.95	9,600	8,660	.90	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,270	.86	9,600	8,530	.89	D
I-5 n/o Pico	Northbound	4+1H+1A	10,600	7,880	.74	10,600	8,100	.76	D
I-5 n/o El Camino Real	Northbound	4	8,000	7,750	.97	8,000	8,190	1.02	F
I-5 n/o Cristianitos	Northbound	4	8,000	5,240	.66	8,000	5,810	.73	D
I-5 s/o Cristianitos	Northbound	4	8,000	5,130	.64	8,000	5,450	.68	C
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,350	.66	9,600	4,440	.46	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,600	.58	9,600	3,950	.41	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	9,250	.96	9,600	4,300	.45	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,820	.90	7,600	3,380	.44	B
SR 241 n/o Oso	Northbound	3+1H	7,600	5,210	.69	7,600	2,720	.36	B
SR 241 s/o Oso	Northbound	2+1H	5,600	3,790	.68	5,600	2,440	.44	B
SR 241 n/o Ortega	Northbound	2+1H	5,600	3,010	.54	5,600	2,570	.46	B

Table D-34 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Pico	Northbound	2+1H	5,600	2,460	.44	5,600	2,540	.45	B
SR 241 n/o Cristianitos	Northbound	2+1H	5,600	2,010	.36	5,600	2,060	.37	B
SR 241 n/o I-5	Northbound	2+1H	5,600	1,850	.33	5,600	1,870	.33	B
I-5 n/o Bake	Southbound	9+2H	21,500	14,310	.67	21,500	16,660	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,450	.64	19,500	14,960	.77	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,710	.69	15,500	14,140	.91	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,360	.98	10,600	12,310	1.16	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,600	.90	10,600	10,280	.97	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,240	.86	9,600	9,390	.98	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,230	.86	10,600	8,910	.84	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,770	.71	9,600	6,640	.69	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,160	.64	9,600	6,080	.63	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	8,870	.65	13,600	11,880	.87	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,560	.74	11,600	11,100	.96	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	7,760	.81	9,600	9,660	1.01	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,510	.78	9,600	9,320	.97	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,510	.78	9,600	9,320	.97	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,020	.84	9,600	9,270	.97	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	7,920	.83	9,600	8,700	.91	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,370	.70	10,600	8,330	.79	D
I-5 n/o El Camino Real	Southbound	4	8,000	7,130	.89	8,000	8,380	1.05	F
I-5 n/o Cristianitos	Southbound	4	8,000	5,310	.66	8,000	5,330	.67	C
I-5 s/o Cristianitos	Southbound	4	8,000	5,220	.65	8,000	5,350	.67	C
I-5 s/o Basilone	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,120	.33	9,600	6,610	.69	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,710	.28	9,600	5,800	.60	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,310	.24	9,600	8,280	.86	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,840	.24	7,600	6,680	.88	D

Table D-34 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,580	.21	7,600	5,210	.69	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,260	.23	5,600	4,150	.74	D
SR 241 n/o Ortega	Southbound	2+1H	5,600	1,570	.28	5,600	3,440	.61	C
SR 241 n/o Pico	Southbound	2+1H	5,600	1,690	.30	5,600	2,920	.52	C
SR 241 n/o Cristianitos	Southbound	2+1H	5,600	1,100	.20	5,600	2,600	.46	B
SR 241 n/o I-5	Southbound	2+1H	5,600	860	.15	5,600	2,200	.39	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-35

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,550	.82	21,500	15,540	.72	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,530	.85	19,500	13,430	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	13,980	1.03	15,500	12,150	.78	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,330	.98	11,600	10,090	.87	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,060	.95	9,600	9,170	.96	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,830	1.02	9,600	9,010	.94	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,460	.80	9,600	8,500	.89	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	6,810	.71	9,600	6,970	.73	D
I-5 n/o SR 73	Northbound	4+1H	9,600	6,740	.70	9,600	6,550	.68	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	11,980	.88	13,600	10,630	.78	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,080	.96	11,600	9,900	.85	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,200	1.06	9,600	9,140	.95	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,030	1.04	9,600	9,410	.98	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,220	.96	9,600	8,340	.87	D
I-5 n/o Estrella	Northbound	4+1A	8,500	9,520	1.12	8,500	8,870	1.04	F
I-5 n/o Hermosa	Northbound	4	8,000	8,430	1.05	8,000	8,510	1.06	F
I-5 n/o Pico	Northbound	4+1A	9,000	7,890	.88	9,000	8,040	.89	D
I-5 n/o El Camino Real	Northbound	4	8,000	7,860	.98	8,000	8,400	1.05	F
I-5 n/o Cristianitos	Northbound	4	8,000	5,350	.67	8,000	6,000	.75	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 s/o Basillone	Northbound	4	8,000	7,050	.88	8,000	6,860	.86	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,840	.61	9,600	4,340	.45	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,240	.55	9,600	4,070	.42	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,450	.88	9,600	4,030	.42	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	6,230	.82	7,600	3,230	.43	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,690	.62	7,600	2,660	.35	B
SR 241 s/o Oso	Northbound	2+1H	5,600	4,230	.76	5,600	2,830	.51	C

Table D-35 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2+1H	5,600	3,340	.60	5,600	2,460	.44	B
SR 241 n/o Pico	Northbound	2	4,000	2,890	.72	4,000	2,770	.69	C
I-5 n/o Bake	Southbound	9+2H	21,500	14,480	.67	21,500	16,600	.77	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,490	.64	19,500	14,760	.76	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,700	.69	15,500	13,850	.89	D
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,350	.97	10,600	11,980	1.13	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,570	.89	10,600	10,140	.96	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,240	.86	9,600	9,170	.96	E
I-5 n/o Crown Valley	Southbound	4+1H	9,600	8,240	.86	9,600	8,570	.89	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,940	.72	9,600	6,680	.70	C
I-5 n/o SR 73	Southbound	4+1H	9,600	6,520	.68	9,600	6,360	.66	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,460	.70	13,600	11,800	.87	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,920	.77	11,600	11,100	.96	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,100	.84	9,600	9,910	1.03	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,810	.81	9,600	9,690	1.01	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,810	.81	9,600	9,690	1.01	F
I-5 n/o Estrella	Southbound	4+1A	8,000	8,100	1.01	8,000	9,770	1.22	F
I-5 n/o Hermosa	Southbound	4	8,000	7,910	.99	8,000	8,910	1.11	F
I-5 n/o Pico	Southbound	4+1A	9,000	7,330	.81	9,000	8,280	.92	E
I-5 n/o El Camino Real	Southbound	4	8,000	7,230	.90	8,000	8,720	1.09	F
I-5 n/o Cristianitos	Southbound	4	8,000	5,480	.69	8,000	5,650	.71	C
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 s/o Basiline	Southbound	4	8,000	5,790	.72	8,000	7,610	.95	E
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,200	.33	9,600	6,070	.63	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,940	.31	9,600	5,450	.57	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,270	.24	9,600	7,280	.76	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,860	.24	7,600	5,850	.77	D

Table D-35 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,650	.22	7,600	4,550	.60	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,670	.30	5,600	4,230	.76	D
SR 241 n/o North River	Southbound	2+1H	5,600	1,430	.26	5,600	3,350	.60	C
SR 241 n/o Pico	Southbound	2	4,000	1,850	.46	4,000	3,210	.80	D

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-36

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	17,640	.82	21,500	15,640	.73	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	16,630	.85	19,500	13,520	.69	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,070	1.03	15,500	12,230	.79	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,430	.99	11,600	10,140	.87	D
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,140	.96	9,600	9,220	.96	E
I-5 n/o Oso	Northbound	4+1H	9,600	9,950	1.04	9,600	9,050	.94	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	8,680	.82	9,600	8,460	.88	D
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,000	.73	9,600	6,850	.71	C
I-5 n/o SR 73	Northbound	4+1H	9,600	6,720	.70	9,600	6,360	.66	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,180	.90	13,600	10,470	.77	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,120	.96	11,600	9,970	.86	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,090	1.05	9,600	9,120	.95	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	9,880	1.03	9,600	9,290	.97	E
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,070	.94	9,600	8,280	.86	D
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,340	.97	9,600	8,950	.93	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	8,590	.89	9,600	8,840	.92	E
I-5 n/o Pico	Northbound	4+1H+1A	10,600	8,250	.78	10,600	8,480	.80	D
I-5 n/o El Camino Real	Northbound	4	8,000	8,140	1.02	8,000	8,670	1.08	F
I-5 n/o Cristianitos	Northbound	4	8,000	5,560	.70	8,000	6,200	.78	D
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,170	.64	9,600	4,530	.47	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,460	.57	9,600	4,110	.43	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,130	.85	9,600	3,810	.40	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	5,900	.78	7,600	2,970	.39	B
SR 241 n/o Oso	Northbound	3+1H	7,600	4,310	.57	7,600	2,380	.31	B
SR 241 s/o Oso	Northbound	2+1H	5,600	3,800	.68	5,600	2,480	.44	B

Table D-36 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o North River	Northbound	2+1H	5,600	2,960	.53	5,600	2,100	.38	B
SR 241 n/o Pico	Northbound	2	4,000	2,190	.55	4,000	2,030	.51	C
I-5 n/o Bake	Southbound	9+2H	21,500	14,530	.68	21,500	16,700	.78	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,560	.64	19,500	14,840	.76	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,780	.70	15,500	13,940	.90	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,440	.98	10,600	12,070	1.14	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,670	.90	10,600	10,240	.97	E
I-5 n/o Oso	Southbound	4+1H	9,600	8,320	.87	9,600	9,360	.98	E
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,320	.87	10,600	8,810	.83	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,940	.72	9,600	6,890	.72	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,370	.66	9,600	6,280	.65	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,260	.68	13,600	11,900	.88	D
I-5 n/o Ortega	Southbound	5+1H	11,600	8,970	.77	11,600	11,240	.97	E
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,040	.84	9,600	9,800	1.02	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,760	.81	9,600	9,450	.98	E
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,760	.81	9,600	9,450	.98	E
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,230	.86	9,600	9,480	.99	E
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,150	.85	9,600	8,970	.93	E
I-5 n/o Pico	Southbound	4+1H+1A	10,600	7,680	.72	10,600	8,720	.82	D
I-5 n/o El Camino Real	Southbound	4	8,000	7,510	.94	8,000	8,950	1.12	F
I-5 n/o Cristianitos	Southbound	4	8,000	5,680	.71	8,000	5,840	.73	D
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basitone	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basitone	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,270	.34	9,600	6,280	.65	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,890	.30	9,600	5,630	.59	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	2,080	.22	9,600	6,960	.73	D
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,630	.21	7,600	5,500	.72	D

Table D-36 (cont)
2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
SR 241 n/o Oso	Southbound	3+1H	7,600	1,390	.18	7,600	4,210	.55	C
SR 241 s/o Oso	Southbound	2+1H	5,600	1,350	.24	5,600	3,800	.68	C
SR 241 n/o North River	Southbound	2+1H	5,600	1,110	.20	5,600	2,950	.53	C
SR 241 n/o Pico	Southbound	2	4,000	1,140	.29	4,000	2,470	.62	C

Lane abbreviations: H – high occupancy vehicle (HOV) lane
A – auxiliary lane
All other entries represent mixed-flow (general purpose) lanes.

Table D-37

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,030	.84	21,500	15,980	.74	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,060	.87	19,500	13,790	.71	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,420	1.06	15,500	12,550	.81	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	12,890	1.02	11,600	10,450	.90	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	10,580	1.00	9,600	9,580	1.00	E
I-5 n/o Oso	Northbound	4+1H	9,600	10,320	1.08	9,600	9,460	.99	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,000	.85	9,600	8,740	.91	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,250	.76	9,600	7,010	.73	D
I-5 n/o SR 73	Northbound	4+1H	9,600	6,900	.72	9,600	6,460	.67	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	12,690	.93	13,600	10,900	.80	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,590	1.00	11,600	10,360	.89	D
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,510	1.09	9,600	9,580	1.00	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,270	1.07	9,600	9,720	1.01	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,450	.98	9,600	8,760	.91	E
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,780	1.02	9,600	9,430	.98	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	9,040	.94	9,600	9,300	.97	E
I-5 n/o Pico	Northbound	4+1H+1A	10,600	9,030	.85	10,600	9,250	.87	D
I-5 n/o El Camino Real	Northbound	4	8,000	9,590	1.20	8,000	10,070	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,310	.91	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,450	.67	9,600	4,880	.51	C
SR 73 n/o I-5	Northbound	4+1H	9,600	5,780	.60	9,600	4,450	.46	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	7,060	.74	9,600	2,670	.28	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	4,670	.61	7,600	1,630	.21	A
SR 241 n/o Oso	Northbound	3+1H	7,600	2,640	.35	7,600	620	.08	A

Table D-37 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – AIO ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	14,710	.68	21,500	17,270	.80	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,710	.65	19,500	15,350	.79	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,930	.71	15,500	14,410	.93	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,600	1.00	10,600	12,580	1.19	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,820	.92	10,600	10,800	1.02	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,460	.88	9,600	9,890	1.03	F
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,340	.87	10,600	9,250	.87	D
I-5 n/o Avery	Southbound	4+1H+1A	9,600	6,970	.73	9,600	7,160	.75	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,390	.67	9,600	6,520	.68	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,350	.69	13,600	12,500	.92	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,050	.78	11,600	11,700	1.01	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,220	.86	9,600	10,390	1.08	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,910	.82	9,600	10,100	1.05	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,910	.82	9,600	10,100	1.05	F
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,370	.87	9,600	10,150	1.06	F
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,290	.86	9,600	9,650	1.01	F
I-5 n/o Pico	Southbound	4+1H+1A	10,600	8,080	.76	10,600	9,720	.92	E
I-5 n/o El Camino Real	Southbound	4	8,000	8,110	1.01	8,000	10,810	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,140	.77	8,000	7,440	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,110	.76	8,000	7,550	.94	E
I-5 n/o Basiline	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,350	.35	9,600	6,650	.69	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,950	.31	9,600	5,980	.62	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,600	.17	9,600	5,630	.59	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,010	.13	7,600	4,020	.53	C
SR 241 n/o Oso	Southbound	3+1H	7,600	510	.07	7,600	2,120	.28	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-38

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,460	.86	21,500	16,020	.75	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,490	.90	19,500	13,940	.71	C
I-5 n/o El Toro	Northbound	6+1H	13,600	14,770	1.09	15,500	12,740	.82	D
I-5 n/o Alicia	Northbound	5+1H+1A	12,600	13,140	1.04	11,600	10,670	.92	E
I-5 n/o La Paz	Northbound	4+1H+1A	10,600	11,010	1.04	9,600	9,740	1.01	F
I-5 n/o Oso	Northbound	4+1H	9,600	10,330	1.08	9,600	9,630	1.00	E
I-5 n/o Crown Valley	Northbound	4+1H+1A	10,600	9,270	.87	9,600	8,960	.93	E
I-5 n/o Avery	Northbound	4+1H+1A	9,600	7,440	.78	9,600	7,050	.73	D
I-5 n/o SR 73	Northbound	4+1H	9,600	6,990	.73	9,600	6,560	.68	C
I-5 n/o Junipero Serra	Northbound	6+1H	13,600	13,060	.96	13,600	11,120	.82	D
I-5 n/o Ortega	Northbound	5+1H	11,600	11,870	1.02	11,600	10,550	.91	E
I-5 n/o Camino Capistrano	Northbound	4+1H	9,600	10,760	1.12	9,600	9,640	1.00	E
I-5 n/o Stonehill	Northbound	4+1H	9,600	10,600	1.10	9,600	9,860	1.03	F
I-5 n/o PCH/Las Ramblas	Northbound	4+1H	9,600	9,800	1.02	9,600	8,880	.93	E
I-5 n/o Estrella	Northbound	4+1H+1A	9,600	9,880	1.03	9,600	9,500	.99	E
I-5 n/o Hermosa	Northbound	4+1H	9,600	9,100	.95	9,600	9,340	.97	E
I-5 n/o Pico	Northbound	4+1H+1A	10,600	9,080	.86	10,600	9,250	.87	D
I-5 n/o El Camino Real	Northbound	4	8,000	9,600	1.20	8,000	10,110	1.26	F
I-5 n/o Cristianitos	Northbound	4	8,000	6,830	.85	8,000	7,350	.92	E
I-5 s/o Cristianitos	Northbound	4	8,000	6,970	.87	8,000	7,320	.92	E
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,320	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,840	.71	9,600	5,060	.53	C
SR 73 n/o I-5	Northbound	4+1H	9,600	6,070	.63	9,600	4,560	.48	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,130	.85	9,600	2,940	.31	B
SR 241 n/o Antonio	Northbound	3+1H	7,600	5,600	.74	7,600	1,860	.24	A
SR 241 n/o Oso	Northbound	3+1H	7,600	3,570	.47	7,600	950	.13	A

Table D-38 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – AIO ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	14,570	.68	21,500	17,350	.81	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	12,720	.65	19,500	15,610	.80	D
I-5 n/o El Toro	Southbound	6+2H	15,500	10,980	.71	15,500	14,770	.95	E
I-5 n/o Alicia	Southbound	4+1H+1A	9,600	9,620	1.00	10,600	12,980	1.22	F
I-5 n/o La Paz	Southbound	4+1H+1A	9,600	8,860	.92	10,600	11,020	1.04	F
I-5 n/o Oso	Southbound	4+1H	9,600	8,500	.89	9,600	10,100	1.05	F
I-5 n/o Crown Valley	Southbound	4+1H+1A	9,600	8,380	.87	10,600	9,610	.91	E
I-5 n/o Avery	Southbound	4+1H+1A	9,600	7,030	.73	9,600	7,390	.77	D
I-5 n/o SR 73	Southbound	4+1H	9,600	6,410	.67	9,600	6,700	.70	C
I-5 n/o Junipero Serra	Southbound	6+1H	13,600	9,350	.69	13,600	12,960	.95	E
I-5 n/o Ortega	Southbound	5+1H	11,600	9,030	.78	11,600	12,050	1.04	F
I-5 n/o Camino Capistrano	Southbound	4+1H	9,600	8,200	.85	9,600	10,630	1.11	F
I-5 n/o Stonehill	Southbound	4+1H	9,600	7,930	.83	9,600	10,420	1.09	F
I-5 n/o PCH/Las Ramblas	Southbound	4+1H	9,600	7,930	.83	9,600	10,420	1.09	F
I-5 n/o Estrella	Southbound	4+1H+1A	9,600	8,440	.88	9,600	10,280	1.07	F
I-5 n/o Hermosa	Southbound	4+1H	9,600	8,340	.87	9,600	9,730	1.01	F
I-5 n/o Pico	Southbound	4+1H+1A	10,600	8,090	.76	10,600	9,750	.92	E
I-5 n/o El Camino Real	Southbound	4	8,000	8,140	1.02	8,000	10,830	1.35	F
I-5 n/o Cristianitos	Southbound	4	8,000	6,120	.77	8,000	7,440	.93	E
I-5 s/o Cristianitos	Southbound	4	8,000	6,080	.76	8,000	7,560	.95	E
I-5 n/o Basitone	Southbound	4+1H	9,600	6,080	.63	9,600	7,560	.79	D
I-5 s/o Basitone	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,340	.35	9,600	7,100	.74	D
SR 73 n/o I-5	Southbound	4+1H	9,600	2,930	.31	9,600	6,270	.65	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,650	.17	9,600	6,470	.67	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,060	.14	7,600	4,900	.64	C
SR 241 n/o Oso	Southbound	3+1H	7,600	630	.08	7,600	3,090	.41	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-39

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – AIP ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,210	.85	21,500	16,330	.76	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,260	.89	19,500	14,240	.73	D
I-5 n/o El Toro	Northbound	6+2H	15,500	14,720	.95	15,500	12,970	.84	D
I-5 n/o Alicia	Northbound	5+2H+1A	14,500	13,180	.91	13,500	10,990	.81	D
I-5 n/o La Paz	Northbound	4+2H+1A	12,500	11,120	.89	11,500	10,060	.87	D
I-5 n/o Oso	Northbound	4+2H	11,500	10,520	.91	11,500	9,890	.86	D
I-5 n/o Crown Valley	Northbound	4+2H+1A	12,500	9,640	.77	11,500	9,170	.80	D
I-5 n/o Avery	Northbound	4+2H+1A	11,500	7,860	.68	11,500	7,470	.65	C
I-5 n/o SR 73	Northbound	4+2H	11,500	7,670	.67	11,500	6,970	.61	C
I-5 n/o Junipero Serra	Northbound	6+2H	15,500	13,310	.86	15,500	11,160	.72	D
I-5 n/o Ortega	Northbound	5+2H	13,500	12,190	.90	13,500	10,640	.79	D
I-5 n/o Camino Capistrano	Northbound	4+2H+1A	11,500	10,940	.95	11,500	9,700	.84	D
I-5 n/o Stonehill	Northbound	4+2H	11,500	10,550	.92	11,500	9,780	.85	D
I-5 n/o PCH/Las Ramblas	Northbound	4+2H	11,500	9,640	.84	11,500	8,750	.76	D
I-5 n/o Estrella	Northbound	4+2H+1A	11,500	9,820	.85	11,500	9,370	.81	D
I-5 n/o Hermosa	Northbound	4+2H	11,500	9,070	.79	11,500	9,230	.80	D
I-5 n/o Pico	Northbound	4+2H+1A	12,500	9,090	.73	12,500	9,130	.73	D
I-5 n/o El Camino Real	Northbound	4+1H+1A	9,600	9,660	1.01	9,600	10,190	1.06	F
I-5 n/o Cristianitos	Northbound	4+1H	9,600	6,870	.72	9,600	7,350	.77	D
I-5 s/o Cristianitos	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,350	.66	9,600	4,620	.48	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,640	.59	9,600	4,190	.44	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	6,920	.72	9,600	2,600	.27	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	4,520	.59	7,600	1,580	.21	A
SR 241 n/o Oso	Northbound	3+1H	7,600	2,520	.33	7,600	600	.08	A

Table D-39 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – AIP ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	14,910	.69	21,500	17,470	.81	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	13,040	.67	19,500	15,610	.80	D
I-5 n/o El Toro	Southbound	6+2H	15,500	11,340	.73	15,500	14,740	.95	E
I-5 n/o Alicia	Southbound	4+2H+1A	11,500	10,060	.87	12,500	12,960	1.04	F
I-5 n/o La Paz	Southbound	4+2H+1A	11,500	9,240	.80	12,500	11,180	.89	D
I-5 n/o Oso	Southbound	4+2H	11,500	8,770	.76	11,500	10,370	.90	E
I-5 n/o Crown Valley	Southbound	4+2H+1A	11,500	8,650	.75	12,500	9,660	.77	D
I-5 n/o Avery	Southbound	4+2H+1A	11,500	7,250	.63	11,500	7,590	.66	C
I-5 n/o SR 73	Southbound	4+2H	11,500	6,680	.58	11,500	7,140	.62	C
I-5 n/o Junipero Serra	Southbound	6+2H	15,500	9,500	.61	15,500	13,030	.84	D
I-5 n/o Ortega	Southbound	5+2H	13,500	9,190	.68	13,500	12,200	.90	E
I-5 n/o Camino Capistrano	Southbound	4+2H+1A	11,500	8,300	.72	11,500	10,580	.92	E
I-5 n/o Stonehill	Southbound	4+2H	11,500	7,980	.69	11,500	10,260	.89	D
I-5 n/o PCH/Las Ramblas	Southbound	4+2H	11,500	7,980	.69	11,500	10,260	.89	D
I-5 n/o Estrella	Southbound	4+2H+1A	11,500	8,390	.73	11,500	10,180	.89	D
I-5 n/o Hermosa	Southbound	4+2H	11,500	8,310	.72	11,500	9,680	.84	D
I-5 n/o Pico	Southbound	4+2H+1A	12,500	8,060	.64	12,500	9,680	.77	D
I-5 n/o El Camino Real	Southbound	4+1H+1A	9,600	8,150	.85	9,600	10,950	1.14	F
I-5 n/o Cristianitos	Southbound	4+1H	9,600	6,150	.64	9,600	7,470	.78	D
I-5 s/o Cristianitos	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 n/o Basiline	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,200	.33	9,600	6,620	.69	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,820	.29	9,600	5,880	.61	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,570	.16	9,600	5,560	.58	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	990	.13	7,600	3,950	.52	C
SR 241 n/o Oso	Southbound	3+1H	7,600	500	.07	7,600	2,050	.27	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-40

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – AIP ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,560	.86	21,500	16,410	.76	D
I-5 n/o Lake Forest	Northbound	8+2H	19,500	17,620	.90	19,500	14,450	.74	D
I-5 n/o El Toro	Northbound	6+2H	15,500	15,050	.97	15,500	13,190	.85	D
I-5 n/o Alicia	Northbound	5+2H+1A	14,500	13,560	.94	13,500	11,230	.83	D
I-5 n/o La Paz	Northbound	4+2H+1A	12,500	11,430	.91	11,500	10,210	.89	D
I-5 n/o Oso	Northbound	4+2H	11,500	10,830	.94	11,500	10,070	.88	D
I-5 n/o Crown Valley	Northbound	4+2H+1A	12,500	9,810	.78	11,500	9,410	.82	D
I-5 n/o Avery	Northbound	4+2H+1A	11,500	8,010	.70	11,500	7,520	.65	C
I-5 n/o SR 73	Northbound	4+2H	11,500	7,780	.68	11,500	7,050	.61	C
I-5 n/o Junipero Serra	Northbound	6+2H	15,500	13,720	.89	15,500	11,370	.73	D
I-5 n/o Ortega	Northbound	5+2H	13,500	12,590	.93	13,500	10,820	.80	D
I-5 n/o Camino Capistrano	Northbound	4+2H+1A	11,500	11,130	.97	11,500	9,790	.85	D
I-5 n/o Stonehill	Northbound	4+2H	11,500	10,870	.95	11,500	9,940	.86	D
I-5 n/o PCH/Las Ramblas	Northbound	4+2H	11,500	9,990	.87	11,500	8,900	.77	D
I-5 n/o Estrella	Northbound	4+2H+1A	11,500	9,950	.87	11,500	9,460	.82	D
I-5 n/o Hermosa	Northbound	4+2H	11,500	9,180	.80	11,500	9,270	.81	D
I-5 n/o Pico	Northbound	4+2H+1A	12,500	9,150	.73	12,500	9,200	.74	D
I-5 n/o El Camino Real	Northbound	4+1H+1A	9,600	9,700	1.01	9,600	10,250	1.07	F
I-5 n/o Cristianitos	Northbound	4+1H	9,600	6,880	.72	9,600	7,360	.77	D
I-5 s/o Cristianitos	Northbound	4+1H	9,600	6,970	.73	9,600	7,320	.76	D
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,320	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,630	.69	9,600	4,810	.50	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,940	.62	9,600	4,330	.45	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	8,030	.84	9,600	2,900	.30	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	5,480	.72	7,600	1,850	.24	A
SR 241 n/o Oso	Northbound	3+1H	7,600	3,440	.45	7,600	960	.13	A

Table D-40 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – AIP ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	14,840	.69	21,500	17,530	.82	D
I-5 n/o Lake Forest	Southbound	8+2H	19,500	13,060	.67	19,500	15,830	.81	D
I-5 n/o El Toro	Southbound	6+2H	15,500	11,410	.74	15,500	15,060	.97	E
I-5 n/o Alicia	Southbound	4+2H+1A	11,500	10,150	.88	12,500	13,320	1.07	F
I-5 n/o La Paz	Southbound	4+2H+1A	11,500	9,340	.81	12,500	11,350	.91	E
I-5 n/o Oso	Southbound	4+2H	11,500	8,890	.77	11,500	10,530	.92	E
I-5 n/o Crown Valley	Southbound	4+2H+1A	11,500	8,720	.76	12,500	10,040	.80	D
I-5 n/o Avery	Southbound	4+2H+1A	11,500	7,350	.64	11,500	7,770	.68	C
I-5 n/o SR 73	Southbound	4+2H	11,500	6,750	.59	11,500	7,350	.64	C
I-5 n/o Junipero Serra	Southbound	6+2H	15,500	9,500	.61	15,500	13,570	.88	D
I-5 n/o Ortega	Southbound	5+2H	13,500	9,170	.68	13,500	12,690	.94	E
I-5 n/o Camino Capistrano	Southbound	4+2H+1A	11,500	8,260	.72	11,500	10,870	.95	E
I-5 n/o Stonehill	Southbound	4+2H	11,500	7,980	.69	11,500	10,540	.92	E
I-5 n/o PCH/Las Ramblas	Southbound	4+2H	11,500	7,980	.69	11,500	10,540	.92	E
I-5 n/o Estrella	Southbound	4+2H+1A	11,500	8,440	.73	11,500	10,330	.90	E
I-5 n/o Hermosa	Southbound	4+2H	11,500	8,340	.73	11,500	9,740	.85	D
I-5 n/o Pico	Southbound	4+2H+1A	12,500	8,090	.65	12,500	9,790	.78	D
I-5 n/o El Camino Real	Southbound	4+1H+1A	9,600	8,200	.85	9,600	11,010	1.15	F
I-5 n/o Cristianitos	Southbound	4+1H	9,600	6,120	.64	9,600	7,470	.78	D
I-5 s/o Cristianitos	Southbound	4+1H	9,600	6,080	.63	9,600	7,560	.79	D
I-5 n/o Basiline	Southbound	4+1H	9,600	6,080	.63	9,600	7,560	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	3,130	.33	9,600	7,030	.73	D
SR 73 n/o I-5	Southbound	4+1H	9,600	2,750	.29	9,600	6,220	.65	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,620	.17	9,600	6,590	.69	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	1,030	.14	7,600	4,820	.63	C
SR 241 n/o Oso	Southbound	3+1H	7,600	600	.08	7,600	3,000	.39	B

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-41

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – I-5 ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,930	.88	21,500	17,210	.80	D
I-5 n/o Lake Forest	Northbound	9+2H	21,500	18,050	.84	21,500	15,350	.71	C
I-5 n/o El Toro	Northbound	7+2H	17,500	16,460	.94	17,500	14,260	.81	D
I-5 n/o Alicia	Northbound	5+2H+1A	14,500	14,930	1.03	13,500	12,470	.92	E
I-5 n/o La Paz	Northbound	5+2H+1A	14,500	13,000	.90	13,500	11,390	.84	D
I-5 n/o Oso	Northbound	5+2H+1A	14,500	12,390	.85	13,500	11,330	.84	D
I-5 n/o Crown Valley	Northbound	5+2H+1A	14,500	11,100	.77	13,500	10,670	.79	D
I-5 n/o Avery	Northbound	5+2H+1A	13,500	9,420	.70	13,500	9,060	.67	C
I-5 n/o SR 73	Northbound	5+2H	13,500	9,280	.69	13,500	8,650	.64	C
I-5 n/o Junipero Serra	Northbound	7+2H	17,500	14,740	.84	17,500	12,730	.73	D
I-5 n/o Ortega	Northbound	6+2H+1A	16,500	13,990	.85	15,500	12,100	.78	D
I-5 n/o Camino Capistrano	Northbound	5+2H+1A	13,500	13,110	.97	13,500	11,480	.85	D
I-5 n/o Stonehill	Northbound	5+2H	13,500	12,910	.96	13,500	11,730	.87	D
I-5 n/o PCH/Las Ramblas	Northbound	5+2H	13,500	11,910	.88	13,500	10,470	.78	D
I-5 n/o Estrella	Northbound	6+1H+1A	13,600	12,190	.90	13,600	11,130	.82	D
I-5 n/o Hermosa	Northbound	6+1H	13,600	11,080	.81	13,600	10,750	.79	D
I-5 n/o Pico	Northbound	6+1H+1A	14,600	10,350	.71	14,600	10,240	.70	C
I-5 n/o El Camino Real	Northbound	5+1H+1A	11,600	9,900	.85	11,600	10,410	.90	E
I-5 n/o Cristianitos	Northbound	5+1H	11,600	6,920	.60	11,600	7,410	.64	C
I-5 s/o Cristianitos	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	5,930	.62	9,600	4,260	.44	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,460	.57	9,600	4,080	.43	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	6,290	.66	9,600	2,250	.23	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	3,900	.51	7,600	1,290	.17	A
SR 241 n/o Oso	Northbound	3+1H	7,600	2,040	.27	7,600	530	.07	A

Table D-41 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – I-5 ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	15,800	.73	21,500	18,760	.87	D
I-5 n/o Lake Forest	Southbound	9+2H	21,500	14,040	.65	21,500	17,360	.81	D
I-5 n/o El Toro	Southbound	7+2H	17,500	12,500	.71	17,500	16,590	.95	E
I-5 n/o Alicia	Southbound	5+2H+1A	13,500	11,460	.85	14,500	14,900	1.03	F
I-5 n/o La Paz	Southbound	5+2H+1A	13,500	10,520	.78	14,500	13,100	.90	E
I-5 n/o Oso	Southbound	5+2H+1A	13,500	10,140	.75	14,500	12,270	.85	D
I-5 n/o Crown Valley	Southbound	5+2H+1A	13,500	10,130	.75	14,500	11,360	.78	D
I-5 n/o Avery	Southbound	5+2H+1A	13,500	8,630	.64	13,500	9,610	.71	C
I-5 n/o SR 73	Southbound	5+2H	13,500	8,190	.61	13,500	9,150	.68	C
I-5 n/o Junipero Serra	Southbound	7+2H	17,500	10,650	.61	17,500	14,490	.83	D
I-5 n/o Ortega	Southbound	6+2H+1A	15,500	10,130	.65	16,500	14,040	.85	D
I-5 n/o Camino Capistrano	Southbound	5+2H+1A	13,500	9,460	.70	13,500	12,790	.95	E
I-5 n/o Stonehill	Southbound	5+2H	13,500	9,150	.68	13,500	12,510	.93	E
I-5 n/o PCH/Las Ramblas	Southbound	5+2H	13,500	9,150	.68	13,500	12,510	.93	E
I-5 n/o Estrella	Southbound	6+1H+1A	13,600	9,560	.70	13,600	12,670	.93	E
I-5 n/o Hermosa	Southbound	6+1H	13,600	9,350	.69	13,600	11,740	.86	D
I-5 n/o Pico	Southbound	6+1H+1A	14,600	8,530	.58	14,600	10,960	.75	D
I-5 n/o El Camino Real	Southbound	5+1H+1A	11,600	8,320	.72	11,600	11,200	.97	E
I-5 n/o Cristianitos	Southbound	5+1H	11,600	6,150	.53	11,600	7,530	.65	C
I-5 s/o Cristianitos	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 n/o Basiline	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	2,630	.27	9,600	5,890	.61	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,460	.26	9,600	5,350	.56	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,430	.15	9,600	4,980	.52	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	870	.11	7,600	3,400	.45	B
SR 241 n/o Oso	Southbound	3+1H	7,600	480	.06	7,600	1,770	.23	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-42

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	18,910	.88	21,500	17,190	.80	D
I-5 n/o Lake Forest	Northbound	9+2H	21,500	18,040	.84	21,500	15,340	.71	C
I-5 n/o El Toro	Northbound	7+2H	17,500	16,490	.94	17,500	14,250	.81	D
I-5 n/o Alicia	Northbound	5+2H+1A	14,500	14,990	1.03	13,500	12,490	.93	E
I-5 n/o La Paz	Northbound	5+2H+1A	14,500	13,010	.90	13,500	11,340	.84	D
I-5 n/o Oso	Northbound	5+2H+1A	14,500	12,470	.86	13,500	11,270	.83	D
I-5 n/o Crown Valley	Northbound	5+2H+1A	14,500	11,140	.77	13,500	10,500	.78	D
I-5 n/o Avery	Northbound	5+2H+1A	13,500	9,320	.69	13,500	8,760	.65	C
I-5 n/o SR 73	Northbound	5+2H	13,500	9,100	.67	13,500	8,280	.61	C
I-5 n/o Junipero Serra	Northbound	7+2H	17,500	14,570	.83	17,500	12,190	.70	C
I-5 n/o Ortega	Northbound	6+2H+1A	16,500	13,820	.84	15,500	11,760	.76	D
I-5 n/o Camino Capistrano	Northbound	5+2H+1A	13,500	12,610	.93	13,500	10,960	.81	D
I-5 n/o Stonehill	Northbound	5+2H	13,500	12,280	.91	13,500	11,130	.82	D
I-5 n/o PCH/Las Ramblas	Northbound	5+2H	13,500	11,260	.83	13,500	9,930	.74	D
I-5 n/o Estrella	Northbound	6+1H+1A	13,600	11,300	.83	13,600	10,510	.77	D
I-5 n/o Hermosa	Northbound	6+1H	13,600	10,380	.76	13,600	10,340	.76	D
I-5 n/o Pico	Northbound	6+1H+1A	14,600	9,990	.68	14,600	9,980	.68	C
I-5 n/o El Camino Real	Northbound	5+1H+1A	11,600	9,790	.84	11,600	10,290	.89	D
I-5 n/o Cristianitos	Northbound	5+1H	11,600	6,920	.60	11,600	7,390	.64	C
I-5 s/o Cristianitos	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,310	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,860	.71	C
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,050	.63	9,600	4,290	.45	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,460	.57	9,600	3,920	.41	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	6,240	.65	9,600	2,260	.24	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	3,860	.51	7,600	1,300	.17	A
SR 241 n/o Oso	Northbound	3+1H	7,600	1,960	.26	7,600	530	.07	A

Table D-42 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – I-5 ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	15,780	.73	21,500	18,720	.87	D
I-5 n/o Lake Forest	Southbound	9+2H	21,500	14,020	.65	21,500	17,370	.81	D
I-5 n/o El Toro	Southbound	7+2H	17,500	12,490	.71	17,500	16,630	.95	E
I-5 n/o Alicia	Southbound	5+2H+1A	13,500	11,420	.85	14,500	14,930	1.03	F
I-5 n/o La Paz	Southbound	5+2H+1A	13,500	10,440	.77	14,500	13,080	.90	E
I-5 n/o Oso	Southbound	5+2H+1A	13,500	10,030	.74	14,500	12,310	.85	D
I-5 n/o Crown Valley	Southbound	5+2H+1A	13,500	9,970	.74	14,500	11,410	.79	D
I-5 n/o Avery	Southbound	5+2H+1A	13,500	8,360	.62	13,500	9,490	.70	C
I-5 n/o SR 73	Southbound	5+2H	13,500	7,720	.57	13,500	8,930	.66	C
I-5 n/o Junipero Serra	Southbound	7+2H	17,500	10,040	.57	17,500	14,240	.81	D
I-5 n/o Ortega	Southbound	6+2H+1A	15,500	9,770	.63	16,500	13,630	.83	D
I-5 n/o Camino Capistrano	Southbound	5+2H+1A	13,500	8,910	.66	13,500	12,140	.90	E
I-5 n/o Stonehill	Southbound	5+2H	13,500	8,590	.64	13,500	11,750	.87	D
I-5 n/o PCH/Las Ramblas	Southbound	5+2H	13,500	8,590	.64	13,500	11,750	.87	D
I-5 n/o Estrella	Southbound	6+1H+1A	13,600	8,990	.66	13,600	11,630	.86	D
I-5 n/o Hermosa	Southbound	6+1H	13,600	8,900	.65	13,600	11,030	.81	D
I-5 n/o Pico	Southbound	6+1H+1A	14,600	8,360	.57	14,600	10,640	.73	D
I-5 n/o El Camino Real	Southbound	5+1H+1A	11,600	8,220	.71	11,600	11,060	.95	E
I-5 n/o Cristianitos	Southbound	5+1H	11,600	6,150	.53	11,600	7,530	.65	C
I-5 s/o Cristianitos	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 n/o Basiline	Southbound	4+1H	9,600	6,110	.64	9,600	7,550	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,790	.60	9,600	7,610	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	2,620	.27	9,600	5,980	.62	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,320	.24	9,600	5,320	.55	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,460	.15	9,600	4,910	.51	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	890	.12	7,600	3,320	.44	B
SR 241 n/o Oso	Southbound	3+1H	7,600	490	.06	7,600	1,680	.22	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-43

2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Northbound	9+2H	21,500	19,380	.90	21,500	17,250	.80	D
I-5 n/o Lake Forest	Northbound	9+2H	21,500	18,530	.86	21,500	15,500	.72	D
I-5 n/o El Toro	Northbound	7+2H	17,500	16,820	.96	17,500	14,490	.83	D
I-5 n/o Alicia	Northbound	5+2H+1A	14,500	15,400	1.06	13,500	12,690	.94	E
I-5 n/o La Paz	Northbound	5+2H+1A	14,500	13,320	.92	13,500	11,580	.86	D
I-5 n/o Oso	Northbound	5+2H+1A	14,500	12,700	.88	13,500	11,550	.86	D
I-5 n/o Crown Valley	Northbound	5+2H+1A	14,500	11,380	.78	13,500	11,000	.81	D
I-5 n/o Avery	Northbound	5+2H+1A	13,500	9,460	.70	13,500	9,010	.67	C
I-5 n/o SR 73	Northbound	5+2H	13,500	9,220	.68	13,500	8,480	.63	C
I-5 n/o Junipero Serra	Northbound	7+2H	17,500	15,120	.86	17,500	12,570	.72	D
I-5 n/o Ortega	Northbound	6+2H+1A	16,500	14,200	.86	15,500	12,130	.78	D
I-5 n/o Camino Capistrano	Northbound	5+2H+1A	13,500	12,880	.95	13,500	11,200	.83	D
I-5 n/o Stonehill	Northbound	5+2H	13,500	12,510	.93	13,500	11,410	.85	D
I-5 n/o PCH/Las Ramblas	Northbound	5+2H	13,500	11,510	.85	13,500	10,190	.75	D
I-5 n/o Estrella	Northbound	6+1H+1A	13,600	11,380	.84	13,600	10,720	.79	D
I-5 n/o Hermosa	Northbound	6+1H	13,600	10,480	.77	13,600	10,490	.77	D
I-5 n/o Pico	Northbound	6+1H+1A	14,600	10,040	.69	14,600	10,050	.69	C
I-5 n/o El Camino Real	Northbound	5+1H+1A	11,600	9,810	.85	11,600	10,350	.89	D
I-5 n/o Cristianitos	Northbound	5+1H	11,600	6,920	.60	11,600	7,410	.64	C
I-5 s/o Cristianitos	Northbound	4+1H	9,600	6,970	.73	9,600	7,320	.76	D
I-5 n/o Basillone	Northbound	4+1H	9,600	6,970	.73	9,600	7,320	.76	D
I-5 s/o Basillone	Northbound	4+1H	9,600	7,050	.73	9,600	6,870	.72	D
SR 73 n/o Greenfield	Northbound	4+1H	9,600	6,510	.68	9,600	4,500	.47	B
SR 73 n/o I-5	Northbound	4+1H	9,600	5,900	.61	9,600	4,090	.43	B
SR 241 n/o Santa Margarita	Northbound	4+1H	9,600	7,230	.75	9,600	2,450	.26	A
SR 241 n/o Antonio	Northbound	3+1H	7,600	4,720	.62	7,600	1,430	.19	A
SR 241 n/o Oso	Northbound	3+1H	7,600	2,710	.36	7,600	710	.09	A

Table D-43 (cont)
 2025 FREEWAY/TOLLWAY MAINLINE LOS SUMMARY – I-5 ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Direction	Lanes	AM Peak Hour			PM Peak Hour			LOS
			Capacity	Volume	V/C	Capacity	Volume	V/C	
I-5 n/o Bake	Southbound	9+2H	21,500	15,710	.73	21,500	19,010	.88	D
I-5 n/o Lake Forest	Southbound	9+2H	21,500	14,060	.65	21,500	17,580	.82	D
I-5 n/o El Toro	Southbound	7+2H	17,500	12,570	.72	17,500	16,880	.96	E
I-5 n/o Alicia	Southbound	5+2H+1A	13,500	11,520	.85	14,500	15,140	1.04	F
I-5 n/o La Paz	Southbound	5+2H+1A	13,500	10,540	.78	14,500	13,290	.92	E
I-5 n/o Oso	Southbound	5+2H+1A	13,500	10,130	.75	14,500	12,400	.86	D
I-5 n/o Crown Valley	Southbound	5+2H+1A	13,500	10,190	.75	14,500	12,120	.84	D
I-5 n/o Avery	Southbound	5+2H+1A	13,500	8,470	.63	13,500	9,260	.69	C
I-5 n/o SR 73	Southbound	5+2H	13,500	7,840	.58	13,500	8,880	.66	C
I-5 n/o Junipero Serra	Southbound	7+2H	17,500	10,110	.58	17,500	14,960	.85	D
I-5 n/o Ortega	Southbound	6+2H+1A	15,500	9,820	.63	16,500	14,310	.87	D
I-5 n/o Camino Capistrano	Southbound	5+2H+1A	13,500	9,000	.67	13,500	12,650	.94	E
I-5 n/o Stonehill	Southbound	5+2H	13,500	8,770	.65	13,500	12,100	.90	E
I-5 n/o PCH/Las Ramblas	Southbound	5+2H	13,500	8,770	.65	13,500	12,100	.90	E
I-5 n/o Estrella	Southbound	6+1H+1A	13,600	9,240	.68	13,600	11,820	.87	D
I-5 n/o Hermosa	Southbound	6+1H	13,600	9,110	.67	13,600	11,170	.82	D
I-5 n/o Pico	Southbound	6+1H+1A	14,600	8,470	.58	14,600	10,720	.73	D
I-5 n/o El Camino Real	Southbound	5+1H+1A	11,600	8,250	.71	11,600	11,120	.96	E
I-5 n/o Cristianitos	Southbound	5+1H	11,600	6,120	.53	11,600	7,510	.65	C
I-5 s/o Cristianitos	Southbound	4+1H	9,600	6,080	.63	9,600	7,560	.79	D
I-5 n/o Basiline	Southbound	4+1H	9,600	6,080	.63	9,600	7,560	.79	D
I-5 s/o Basiline	Southbound	4+1H	9,600	5,760	.60	9,600	7,620	.79	D
SR 73 n/o Greenfield	Southbound	4+1H	9,600	2,590	.27	9,600	6,700	.70	C
SR 73 n/o I-5	Southbound	4+1H	9,600	2,280	.24	9,600	6,080	.63	C
SR 241 n/o Santa Margarita	Southbound	4+1H	9,600	1,490	.16	9,600	5,630	.59	C
SR 241 n/o Antonio	Southbound	3+1H	7,600	920	.12	7,600	3,930	.52	C
SR 241 n/o Oso	Southbound	3+1H	7,600	580	.08	7,600	2,180	.29	A

Lane abbreviations: H – high occupancy vehicle (HOV) lane

A – auxiliary lane

All other entries represent mixed-flow (general purpose) lanes.

Table D-44

EXISTING I-5 CONGESTION SUMMARY

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	350,000	.00	.00	.00	.00	168,000	0
I-5 n/o Lake Forest	.94	340,000	.00	.00	.00	.00	319,600	0
I-5 n/o El Toro	1.20	335,000	.00	.00	.00	.00	402,000	0
I-5 n/o Alicia	1.22	331,000	3.90	.00	.00	4.79	403,820	107,413
I-5 n/o La Paz	.92	296,000	2.34	.00	.00	3.24	272,320	50,712
I-5 n/o Oso	1.36	285,000	2.34	.00	.00	3.24	387,600	72,180
I-5 n/o Crown Valley	1.45	263,000	.00	.00	.00	.00	381,350	0
I-5 n/o Avery	1.22	235,000	.00	.00	.00	.00	286,700	0
I-5 n/o SR 73	.42	204,000	.00	.00	.00	.00	85,680	0
I-5 n/o Junipero Serra	1.58	248,000	.00	.00	.00	.00	391,840	0
I-5 n/o Ortega	1.32	241,000	.00	.00	.00	.00	318,120	0
I-5 n/o Camino Capistrano	.92	225,000	.00	.00	.00	.00	207,000	0
I-5 n/o Stonehill	1.22	224,000	.00	.00	.00	.00	273,280	0
I-5 n/o PCH/Las Ramblas	.68	218,000	.00	.00	.00	.00	148,240	0
I-5 n/o Estrella	.96	226,000	.00	.00	.00	.00	216,960	0
I-5 n/o Pico	2.47	212,000	.00	.00	.00	.00	523,640	0
I-5 n/o El Camino Real	1.70	143,000	.00	.00	.00	.00	243,100	0
I-5 n/o Cristianitos	1.75	128,000	.00	.00	.00	.00	224,000	0
I-5 s/o Cristianitos	.46	126,000	.00	.00	.00	.00	57,960	0
I-5 n/o Basillone	.46	126,000	.00	.00	.00	.00	57,960	0
I-5 s/o Basillone	1.00	124,000	.00	.00	.00	.00	124,000	0
VMT Totals							5,493,170	230,305
Percent of daily VMT that occurs under congested conditions								4.2%

Table D-45

2025 I-5 CONGESTION SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	413,000	.00	.00	.00	.00	198,240	0
I-5 n/o Lake Forest	.94	405,000	.00	.00	.00	.00	380,700	0
I-5 n/o El Toro	1.20	402,000	2.84	.00	.00	.00	482,400	42,496
I-5 n/o Alicia	1.22	388,000	2.16	.00	1.00	5.84	473,360	132,182
I-5 n/o La Paz	.92	361,000	1.72	2.11	.00	2.99	332,120	78,358
I-5 n/o Oso	1.36	354,000	3.13	1.71	.00	3.24	481,440	129,356
I-5 n/o Crown Valley	1.45	327,000	.00	.00	.00	.66	474,150	11,538
I-5 n/o Avery	1.22	300,000	.00	.00	.00	.00	366,000	0
I-5 n/o SR 73	.42	256,000	.00	.00	.00	.00	107,520	0
I-5 n/o Junipero Serra	1.58	349,000	.66	.00	.00	.00	551,420	12,315
I-5 n/o Ortega	1.32	338,000	2.68	.00	.00	3.68	446,160	92,925
I-5 n/o Camino Capistrano	.92	317,000	4.54	4.08	.00	5.84	291,640	127,217
I-5 n/o Stonehill	1.22	315,000	4.44	4.45	.00	5.70	384,300	169,600
I-5 n/o PCH/Las Ramblas	.68	303,000	3.53	2.44	.00	5.70	206,040	75,100
I-5 n/o Estrella	.96	316,000	5.54	6.10	3.53	8.73	303,360	194,305
I-5 n/o Hermosa	1.79	305,000	5.02	6.23	2.84	7.60	545,950	331,863
I-5 n/o Pico	.68	288,000	2.52	2.73	.00	4.27	195,840	61,859
I-5 n/o El Camino Real	1.70	215,000	4.34	6.48	1.45	7.49	365,500	204,488
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,324,310	1,663,601
Percent of daily VMT that occurs under congested conditions								22.7%

Table D-46
2025 I-5 CONGESTION SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	418,000	.00	.00	.00	.00	200,640	0
I-5 n/o Lake Forest	.94	412,000	.00	.00	.00	.00	387,280	0
I-5 n/o El Toro	1.20	409,000	3.27	.00	.00	.00	490,800	48,437
I-5 n/o Alicia	1.22	395,000	2.68	.00	1.00	6.23	481,900	144,951
I-5 n/o La Paz	.92	368,000	2.52	2.44	.00	3.47	338,560	96,312
I-5 n/o Oso	1.36	361,000	3.53	2.44	.00	3.68	490,960	154,891
I-5 n/o Crown Valley	1.45	334,000	.00	.66	.00	2.44	484,300	53,660
I-5 n/o Avery	1.22	311,000	.00	.00	.00	.00	379,420	0
I-5 n/o SR 73	.42	266,000	.00	.00	.00	.00	111,720	0
I-5 n/o Junipero Serra	1.58	363,000	2.16	.00	.00	2.99	573,540	99,518
I-5 n/o Ortega	1.32	351,000	3.40	1.00	.00	4.79	463,320	135,086
I-5 n/o Camino Capistrano	.92	329,000	4.93	5.26	2.34	6.84	302,680	170,518
I-5 n/o Stonehill	1.22	330,000	5.20	6.23	2.34	6.84	402,600	236,171
I-5 n/o PCH/Las Ramblas	.68	318,000	4.34	4.95	2.34	6.84	216,240	118,166
I-5 n/o Estrella	.96	328,000	6.02	7.70	5.11	9.54	314,880	221,788
I-5 n/o Hermosa	1.79	316,000	5.46	7.80	4.23	8.46	565,640	382,888
I-5 n/o Pico	.68	292,000	2.68	3.89	.00	4.79	198,560	72,977
I-5 n/o El Camino Real	1.70	216,000	4.34	6.48	1.72	7.60	367,200	209,059
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,508,410	2,144,422
Percent of daily VMT that occurs under congested conditions								28.6%

Table D-47

2025 I-5 CONGESTION SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	409,000	.00	.00	.00	.00	196,320	0
I-5 n/o Lake Forest	.94	401,000	.00	.00	.00	.00	376,940	0
I-5 n/o El Toro	1.20	397,000	2.68	.00	.00	.00	476,400	39,973
I-5 n/o Alicia	1.22	384,000	1.95	.00	1.00	5.56	468,480	125,300
I-5 n/o La Paz	.92	356,000	1.00	1.71	.00	2.99	327,520	65,253
I-5 n/o Oso	1.36	350,000	2.84	1.00	.00	2.99	476,000	108,781
I-5 n/o Crown Valley	1.45	327,000	.00	.00	.00	1.00	474,150	17,306
I-5 n/o Avery	1.22	303,000	.00	.00	.00	.00	369,660	0
I-5 n/o SR 73	.42	259,000	.00	.00	.00	.00	108,780	0
I-5 n/o Junipero Serra	1.58	345,000	.00	.00	.00	.00	545,100	0
I-5 n/o Ortega	1.32	334,000	2.34	.00	.00	3.47	440,880	85,101
I-5 n/o Camino Capistrano	.92	315,000	4.44	4.45	.00	5.97	289,800	129,413
I-5 n/o Stonehill	1.22	315,000	4.44	5.11	.00	5.84	384,300	176,732
I-5 n/o PCH/Las Ramblas	.68	303,000	3.53	3.24	.00	5.84	206,040	80,846
I-5 n/o Estrella	.96	316,000	5.54	6.84	4.23	8.90	303,360	202,864
I-5 n/o Hermosa	1.79	305,000	5.02	6.95	3.40	7.80	545,950	346,980
I-5 n/o Pico	.68	286,000	2.16	3.24	.00	4.45	194,480	63,433
I-5 n/o El Camino Real	1.70	214,000	4.23	6.36	1.45	7.49	363,800	202,052
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,286,130	1,644,034
Percent of daily VMT that occurs under congested conditions								22.6%

Table D-48

2025 I-5 CONGESTION SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH NO FUTURE DEVELOPMENT IN RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	405,000	.00	.00	.00	.00	194,400	0
I-5 n/o Lake Forest	.94	396,000	.00	.00	.00	.00	372,240	0
I-5 n/o El Toro	1.20	392,000	2.16	.00	.00	.00	470,400	32,729
I-5 n/o Alicia	1.22	379,000	1.00	.00	.66	5.56	462,380	104,669
I-5 n/o La Paz	.92	351,000	.00	1.00	.00	2.11	322,920	36,169
I-5 n/o Oso	1.36	345,000	2.34	.66	.00	2.44	469,200	87,016
I-5 n/o Crown Valley	1.45	325,000	.00	.00	.00	.00	471,250	0
I-5 n/o Avery	1.22	301,000	.00	.00	.00	.00	367,220	0
I-5 n/o SR 73	.42	255,000	.00	.00	.00	.00	107,100	0
I-5 n/o Junipero Serra	1.58	338,000	.00	.00	.00	.00	534,040	0
I-5 n/o Ortega	1.32	328,000	1.72	.00	.00	2.73	432,960	65,941
I-5 n/o Camino Capistrano	.92	312,000	4.23	4.27	.00	5.70	287,040	124,249
I-5 n/o Stonehill	1.22	311,000	4.23	4.95	.00	5.41	379,420	168,285
I-5 n/o PCH/Las Ramblas	.68	300,000	3.27	3.24	.00	5.41	204,000	77,030
I-5 n/o Estrella	.96	313,000	5.38	6.72	4.23	8.64	300,480	199,163
I-5 n/o Hermosa	1.79	302,000	4.74	6.84	3.40	7.49	540,580	338,292
I-5 n/o Pico	.68	283,000	1.95	3.24	.00	4.08	192,440	59,728
I-5 n/o El Camino Real	1.70	214,000	4.23	6.36	1.45	7.39	363,800	201,611
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,210,040	1,494,882
Percent of daily VMT that occurs under congested conditions								20.7%

Table D-49

2025 I-5 CONGESTION SUMMARY – NO ACTION ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	413,000	.00	.00	.00	.00	198,240	0
I-5 n/o Lake Forest	.94	405,000	.00	.00	.00	.00	380,700	0
I-5 n/o El Toro	1.20	402,000	2.68	.00	.00	.00	482,400	40,477
I-5 n/o Alicia	1.22	388,000	2.16	.00	1.00	5.70	473,360	130,861
I-5 n/o La Paz	.92	360,000	1.72	1.71	.00	2.73	331,200	70,910
I-5 n/o Oso	1.36	353,000	3.13	1.00	.00	3.24	480,080	116,846
I-5 n/o Crown Valley	1.45	325,000	.00	.00	.00	.00	471,250	0
I-5 n/o Avery	1.22	297,000	.00	.00	.00	.00	362,340	0
I-5 n/o SR 73	.42	248,000	.00	.00	.00	.00	104,160	0
I-5 n/o Junipero Serra	1.58	340,000	.00	.00	.00	.00	537,200	0
I-5 n/o Ortega	1.32	333,000	2.34	.00	.00	2.99	439,560	78,503
I-5 n/o Camino Capistrano	.92	306,000	3.90	3.24	.00	4.79	281,520	106,291
I-5 n/o Stonehill	1.22	302,000	3.53	3.47	.00	4.27	368,440	133,902
I-5 n/o PCH/Las Ramblas	.68	290,000	2.16	.00	.00	4.27	197,200	41,409
I-5 n/o Estrella	.96	304,000	2.84	2.73	.00	4.45	291,840	95,994
I-5 n/o Hermosa	1.79	301,000	1.00	2.44	.00	3.47	538,790	128,413
I-5 n/o Pico	.68	290,000	.00	.00	.00	.00	197,200	0
I-5 n/o El Camino Real	1.70	216,000	4.34	6.48	1.72	7.49	367,200	208,522
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,240,850	1,152,128
Percent of daily VMT that occurs under congested conditions								15.9%

Table D-50

2025 I-5 CONGESTION SUMMARY – NO ACTION ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	419,000	.00	.00	.00	.00	201,120	0
I-5 n/o Lake Forest	.94	413,000	.00	.00	.00	.00	388,220	0
I-5 n/o El Toro	1.20	410,000	3.27	.00	.00	.00	492,000	48,555
I-5 n/o Alicia	1.22	395,000	2.68	.00	1.45	6.36	481,900	153,106
I-5 n/o La Paz	.92	368,000	2.68	2.44	.00	3.47	338,560	97,756
I-5 n/o Oso	1.36	361,000	3.27	2.44	.00	3.89	490,960	154,857
I-5 n/o Crown Valley	1.45	335,000	.00	.00	.00	.00	485,750	0
I-5 n/o Avery	1.22	299,000	.00	.00	.00	.00	364,780	0
I-5 n/o SR 73	.42	251,000	.00	.00	.00	.00	105,420	0
I-5 n/o Junipero Serra	1.58	348,000	1.45	.00	.00	1.71	549,840	60,423
I-5 n/o Ortega	1.32	340,000	2.68	.00	.00	3.89	448,800	96,119
I-5 n/o Camino Capistrano	.92	310,000	4.12	3.68	.00	5.41	285,200	116,555
I-5 n/o Stonehill	1.22	306,000	4.01	4.27	.00	5.11	373,320	155,307
I-5 n/o PCH/Las Ramblas	.68	293,000	2.99	1.71	.00	5.11	199,240	62,657
I-5 n/o Estrella	.96	306,000	3.13	3.47	.00	4.79	293,760	107,826
I-5 n/o Hermosa	1.79	302,000	1.45	2.73	.00	3.89	540,580	148,210
I-5 n/o Pico	.68	291,000	.00	.00	.00	.00	197,880	0
I-5 n/o El Camino Real	1.70	216,000	4.34	6.48	1.72	7.49	367,200	208,522
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,342,700	1,409,893
Percent of daily VMT that occurs under congested conditions								19.2%

Table D-51

2025 I-5 CONGESTION SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	404,000	.00	.00	.00	.00	193,920	0
I-5 n/o Lake Forest	.94	396,000	.00	.00	.00	.00	372,240	0
I-5 n/o El Toro	1.20	393,000	1.72	.00	.00	.00	471,600	26,641
I-5 n/o Alicia	1.22	378,000	.00	.00	.00	4.45	461,160	66,878
I-5 n/o La Paz	.92	349,000	.00	.00	.00	.00	321,080	0
I-5 n/o Oso	1.36	341,000	1.72	.00	.00	.00	463,760	26,198
I-5 n/o Crown Valley	1.45	315,000	.00	.00	.00	.00	456,750	0
I-5 n/o Avery	1.22	286,000	.00	.00	.00	.00	348,920	0
I-5 n/o SR 73	.42	241,000	.00	.00	.00	.00	101,220	0
I-5 n/o Junipero Serra	1.58	326,000	.00	.00	.00	.00	515,080	0
I-5 n/o Ortega	1.32	316,000	.00	.00	.00	.00	417,120	0
I-5 n/o Camino Capistrano	.92	289,000	2.16	.00	.00	1.71	265,880	34,930
I-5 n/o Stonehill	1.22	286,000	1.95	.00	.00	.00	348,920	22,129
I-5 n/o PCH/Las Ramblas	.68	273,000	.00	.00	.00	.00	185,640	0
I-5 n/o Estrella	.96	287,000	3.13	2.11	1.00	5.56	275,520	103,283
I-5 n/o Hermosa	1.79	278,000	1.95	2.73	.00	3.68	497,620	141,128
I-5 n/o Pico	.68	261,000	.00	.00	.00	.00	177,480	0
I-5 n/o El Camino Real	1.70	190,000	.00	1.00	.00	2.11	323,000	36,178
I-5 n/o Cristianitos	1.75	179,000	.00	.00	.00	.00	313,250	0
I-5 s/o Cristianitos	.92	175,000	.00	.00	.00	.00	161,000	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,869,160	457,364
Percent of daily VMT that occurs under congested conditions								6.7%

Table D-52

2025 I-5 CONGESTION SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	406,000	.00	.00	.00	.00	194,880	0
I-5 n/o Lake Forest	.94	398,000	.00	.00	.00	.00	374,120	0
I-5 n/o El Toro	1.20	394,000	1.95	.00	.00	.00	472,800	29,986
I-5 n/o Alicia	1.22	380,000	.00	.00	.00	4.62	463,600	69,183
I-5 n/o La Paz	.92	351,000	.00	.00	.00	.00	322,920	0
I-5 n/o Oso	1.36	344,000	1.95	.00	.00	.00	467,840	29,672
I-5 n/o Crown Valley	1.45	318,000	.00	.00	.00	.00	461,100	0
I-5 n/o Avery	1.22	288,000	.00	.00	.00	.00	351,360	0
I-5 n/o SR 73	.42	240,000	.00	.00	.00	.00	100,800	0
I-5 n/o Junipero Serra	1.58	323,000	.00	.00	.00	.00	510,340	0
I-5 n/o Ortega	1.32	317,000	.00	.00	.00	.00	418,440	0
I-5 n/o Camino Capistrano	.92	288,000	1.95	.00	.00	1.00	264,960	26,475
I-5 n/o Stonehill	1.22	283,000	1.45	.00	.00	.00	345,260	16,605
I-5 n/o PCH/Las Ramblas	.68	270,000	.00	.00	.00	.00	183,600	0
I-5 n/o Estrella	.96	284,000	.00	.00	.00	.00	272,640	0
I-5 n/o Hermosa	1.79	280,000	.00	.00	.00	.00	501,200	0
I-5 n/o Pico	.68	267,000	.00	.00	.00	.00	181,560	0
I-5 n/o El Camino Real	1.70	193,000	.00	2.73	.00	2.99	328,100	65,538
I-5 n/o Cristianitos	1.75	181,000	.00	.00	.00	.00	316,750	0
I-5 s/o Cristianitos	.92	177,000	.00	.00	.00	.00	162,840	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,893,110	237,459
Percent of daily VMT that occurs under congested conditions								3.4%

Table D-53

2025 I-5 CONGESTION SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH CP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	410,000	.00	.00	.00	.00	196,800	0
I-5 n/o Lake Forest	.94	404,000	.00	.00	.00	.00	379,760	0
I-5 n/o El Toro	1.20	401,000	2.52	.00	.00	.00	481,200	38,323
I-5 n/o Alicia	1.22	387,000	1.45	.00	.00	5.11	472,140	98,622
I-5 n/o La Paz	.92	358,000	.00	.00	.00	.00	329,360	0
I-5 n/o Oso	1.36	350,000	2.34	.00	.00	.00	476,000	35,537
I-5 n/o Crown Valley	1.45	320,000	.00	.00	.00	.00	464,000	0
I-5 n/o Avery	1.22	285,000	.00	.00	.00	.00	347,700	0
I-5 n/o SR 73	.42	236,000	.00	.00	.00	.00	99,120	0
I-5 n/o Junipero Serra	1.58	323,000	.00	.00	.00	.00	510,340	0
I-5 n/o Ortega	1.32	317,000	.00	.00	.00	.00	418,440	0
I-5 n/o Camino Capistrano	.92	287,000	2.34	.00	.00	1.71	264,040	36,029
I-5 n/o Stonehill	1.22	282,000	1.95	.00	.00	.00	344,040	21,820
I-5 n/o PCH/Las Ramblas	.68	269,000	.00	.00	.00	.00	182,920	0
I-5 n/o Estrella	.96	282,000	.00	.00	.00	.00	270,720	0
I-5 n/o Hermosa	1.79	278,000	.00	.00	.00	.00	497,620	0
I-5 n/o Pico	.68	265,000	.00	.00	.00	.00	180,200	0
I-5 n/o El Camino Real	1.70	192,000	.00	2.73	.00	3.24	326,400	67,688
I-5 n/o Cristianitos	1.75	181,000	.00	.00	.00	.00	316,750	0
I-5 s/o Cristianitos	.92	175,000	.00	.00	.00	.00	161,000	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,916,550	298,020
Percent of daily VMT that occurs under congested conditions								4.3%

Table D-54

2025 I-5 CONGESTION SUMMARY – FEC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH CP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	340,000	.00	.00	.00	.00	163,200	0
I-5 n/o Lake Forest	.94	338,000	.00	.00	.00	.00	317,720	0
I-5 n/o El Toro	1.20	338,000	1.95	.00	.00	.00	405,600	25,724
I-5 n/o Alicia	1.22	330,000	.00	.00	.00	4.45	402,600	58,386
I-5 n/o La Paz	.92	308,000	.00	.00	.00	.00	283,360	0
I-5 n/o Oso	1.36	299,000	1.45	.00	.00	.00	406,640	19,557
I-5 n/o Crown Valley	1.45	272,000	.00	.00	.00	.00	394,400	0
I-5 n/o Avery	1.22	241,000	.00	.00	.00	.00	294,020	0
I-5 n/o SR 73	.42	193,000	.00	.00	.00	.00	81,060	0
I-5 n/o Junipero Serra	1.58	311,000	.00	.00	.00	.00	491,380	0
I-5 n/o Ortega	1.32	304,000	.00	.00	.00	.00	401,280	0
I-5 n/o Camino Capistrano	.92	275,000	2.34	.00	.00	1.71	253,000	34,523
I-5 n/o Stonehill	1.22	270,000	1.95	.00	.00	.00	329,400	20,891
I-5 n/o PCH/Las Ramblas	.68	256,000	.00	.00	.00	.00	174,080	0
I-5 n/o Estrella	.96	268,000	.00	.00	.00	.00	257,280	0
I-5 n/o Hermosa	1.79	264,000	.00	.00	.00	.00	472,560	0
I-5 n/o Pico	.68	251,000	.00	.00	.00	.00	170,680	0
I-5 n/o El Camino Real	1.70	182,000	.00	.66	.00	2.73	309,400	37,173
I-5 n/o Cristianitos	1.75	170,000	.00	.00	.00	.00	297,500	0
I-5 s/o Cristianitos	.92	164,000	.00	.00	.00	.00	150,880	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,254,040	196,254
Percent of daily VMT that occurs under congested conditions								3.1%

Table D-55

2025 I-5 CONGESTION SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	405,000	.00	.00	.00	.00	194,400	0
I-5 n/o Lake Forest	.94	397,000	.00	.00	.00	.00	373,180	0
I-5 n/o El Toro	1.20	394,000	1.72	.00	.00	.00	472,800	26,709
I-5 n/o Alicia	1.22	380,000	.00	.00	.00	4.45	463,600	67,232
I-5 n/o La Paz	.92	350,000	.00	.00	.00	.00	322,000	0
I-5 n/o Oso	1.36	343,000	1.72	.00	.00	.00	466,480	26,352
I-5 n/o Crown Valley	1.45	316,000	.00	.00	.00	.00	458,200	0
I-5 n/o Avery	1.22	287,000	.00	.00	.00	.00	350,140	0
I-5 n/o SR 73	.42	242,000	.00	.00	.00	.00	101,640	0
I-5 n/o Junipero Serra	1.58	328,000	.00	.00	.00	.00	518,240	0
I-5 n/o Ortega	1.32	318,000	.00	.00	.00	.00	419,760	0
I-5 n/o Camino Capistrano	.92	290,000	2.16	.00	.00	1.71	266,800	35,051
I-5 n/o Stonehill	1.22	287,000	1.95	.00	.00	.66	350,140	30,727
I-5 n/o PCH/Las Ramblas	.68	274,000	.00	.00	.00	.66	186,320	4,534
I-5 n/o Estrella	.96	287,000	3.13	2.44	1.00	5.70	275,520	107,085
I-5 n/o Hermosa	1.79	279,000	1.95	2.99	.00	4.08	499,410	151,193
I-5 n/o Pico	.68	258,000	.00	.00	.00	.00	175,440	0
I-5 n/o El Camino Real	1.70	219,000	.00	.00	.00	.00	372,300	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,004,540	448,881
Percent of daily VMT that occurs under congested conditions								6.4%

Table D-56

2025 I-5 CONGESTION SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	407,000	.00	.00	.00	.00	195,360	0
I-5 n/o Lake Forest	.94	399,000	.00	.00	.00	.00	375,060	0
I-5 n/o El Toro	1.20	396,000	1.95	.00	.00	.00	475,200	30,138
I-5 n/o Alicia	1.22	382,000	.00	.00	.00	4.62	466,040	69,547
I-5 n/o La Paz	.92	353,000	.00	.00	.00	.00	324,760	0
I-5 n/o Oso	1.36	345,000	2.16	.00	.00	.00	469,200	32,645
I-5 n/o Crown Valley	1.45	319,000	.00	.00	.00	.00	462,550	0
I-5 n/o Avery	1.22	290,000	.00	.00	.00	.00	353,800	0
I-5 n/o SR 73	.42	241,000	.00	.00	.00	.00	101,220	0
I-5 n/o Junipero Serra	1.58	325,000	.00	.00	.00	.00	513,500	0
I-5 n/o Ortega	1.32	319,000	.00	.00	.00	.00	421,080	0
I-5 n/o Camino Capistrano	.92	289,000	2.16	.00	.00	1.71	265,880	34,930
I-5 n/o Stonehill	1.22	285,000	1.72	.00	.00	.00	347,700	19,642
I-5 n/o PCH/Las Ramblas	.68	272,000	.00	.00	.00	.00	184,960	0
I-5 n/o Estrella	.96	286,000	.00	.00	.00	.00	274,560	0
I-5 n/o Hermosa	1.79	283,000	.00	.00	.00	.00	506,570	0
I-5 n/o Pico	.68	265,000	.00	.00	.00	.00	180,200	0
I-5 n/o El Camino Real	1.70	219,000	.00	.00	.00	.00	372,300	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,028,110	186,902
Percent of daily VMT that occurs under congested conditions								2.7%

Table D-57

2025 I-5 CONGESTION SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	411,000	.00	.00	.00	.00	197,280	0
I-5 n/o Lake Forest	.94	405,000	.00	.00	.00	.00	380,700	0
I-5 n/o El Toro	1.20	402,000	2.52	.00	.00	.00	482,400	38,419
I-5 n/o Alicia	1.22	388,000	1.45	.00	.66	5.11	473,360	109,448
I-5 n/o La Paz	.92	359,000	.00	.00	.00	.00	330,280	0
I-5 n/o Oso	1.36	351,000	2.34	.00	.00	.66	477,360	47,254
I-5 n/o Crown Valley	1.45	321,000	.00	.00	.00	.00	465,450	0
I-5 n/o Avery	1.22	286,000	.00	.00	.00	.00	348,920	0
I-5 n/o SR 73	.42	237,000	.00	.00	.00	.00	99,540	0
I-5 n/o Junipero Serra	1.58	325,000	.00	.00	.00	.00	513,500	0
I-5 n/o Ortega	1.32	319,000	.00	.00	.00	.00	421,080	0
I-5 n/o Camino Capistrano	.92	288,000	2.52	.00	.00	2.11	264,960	41,108
I-5 n/o Stonehill	1.22	284,000	2.16	.00	.00	.66	346,480	32,538
I-5 n/o PCH/Las Ramblas	.68	271,000	.00	.00	.00	.66	184,280	4,484
I-5 n/o Estrella	.96	284,000	.00	.00	.00	.00	272,640	0
I-5 n/o Hermosa	1.79	281,000	.00	.00	.00	.00	502,990	0
I-5 n/o Pico	.68	264,000	.00	.00	.00	.00	179,520	0
I-5 n/o El Camino Real	1.70	220,000	.00	.00	.00	.00	374,000	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,052,910	273,251
Percent of daily VMT that occurs under congested conditions								3.9%

Table D-58

2025 I-5 CONGESTION SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	406,000	.00	.00	.00	.00	194,880	0
I-5 n/o Lake Forest	.94	398,000	.00	.00	.00	.00	374,120	0
I-5 n/o El Toro	1.20	395,000	1.95	.00	.00	.00	474,000	30,062
I-5 n/o Alicia	1.22	381,000	.00	.00	.00	4.62	464,820	69,365
I-5 n/o La Paz	.92	352,000	.00	.00	.00	.00	323,840	0
I-5 n/o Oso	1.36	345,000	1.95	.00	.00	.00	469,200	29,758
I-5 n/o Crown Valley	1.45	319,000	.00	.00	.00	.00	462,550	0
I-5 n/o Avery	1.22	290,000	.00	.00	.00	.00	353,800	0
I-5 n/o SR 73	.42	245,000	.00	.00	.00	.00	102,900	0
I-5 n/o Junipero Serra	1.58	332,000	.00	.00	.00	.00	524,560	0
I-5 n/o Ortega	1.32	322,000	.00	.00	.00	.00	425,040	0
I-5 n/o Camino Capistrano	.92	296,000	2.68	.00	.00	2.73	272,320	48,941
I-5 n/o Stonehill	1.22	293,000	2.34	.66	.00	2.11	357,460	62,375
I-5 n/o PCH/Las Ramblas	.68	280,000	.00	.00	.00	2.11	190,400	14,376
I-5 n/o Estrella	.96	293,000	3.53	2.99	1.72	6.10	281,280	125,478
I-5 n/o Hermosa	1.79	285,000	2.52	3.47	1.00	4.45	510,150	192,088
I-5 n/o Pico	.68	269,000	.00	.00	.00	.00	182,920	0
I-5 n/o El Camino Real	1.70	198,000	.66	3.24	.00	3.89	336,600	88,917
I-5 n/o Cristianitos	1.75	187,000	.00	.00	.00	.00	327,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,011,010	661,360
Percent of daily VMT that occurs under congested conditions								9.4%

Table D-59

2025 I-5 CONGESTION SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion				Daily Vehicle Miles of Travel (VMT)	
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	408,000	.00	.00	.00	.00	195,840	0
I-5 n/o Lake Forest	.94	400,000	.00	.00	.00	.00	376,000	0
I-5 n/o El Toro	1.20	397,000	2.16	.00	.00	.00	476,400	33,146
I-5 n/o Alicia	1.22	383,000	.66	.00	.66	4.79	467,260	92,532
I-5 n/o La Paz	.92	354,000	.00	.00	.00	.00	325,680	0
I-5 n/o Oso	1.36	346,000	2.16	.00	.00	.00	470,560	32,740
I-5 n/o Crown Valley	1.45	321,000	.00	.00	.00	.00	465,450	0
I-5 n/o Avery	1.22	291,000	.00	.00	.00	.00	355,020	0
I-5 n/o SR 73	.42	243,000	.00	.00	.00	.00	102,060	0
I-5 n/o Junipero Serra	1.58	330,000	.00	.00	.00	.00	521,400	0
I-5 n/o Ortega	1.32	324,000	.00	.00	.00	.00	427,680	0
I-5 n/o Camino Capistrano	.92	294,000	2.52	.00	.00	2.44	270,480	44,929
I-5 n/o Stonehill	1.22	290,000	1.95	.00	.00	.66	353,800	31,048
I-5 n/o PCH/Las Ramblas	.68	277,000	.00	.00	.00	.66	188,360	4,583
I-5 n/o Estrella	.96	291,000	.00	.00	.00	.66	279,360	6,798
I-5 n/o Hermosa	1.79	288,000	.00	.00	.00	.00	515,520	0
I-5 n/o Pico	.68	275,000	.00	.00	.00	.00	187,000	0
I-5 n/o El Camino Real	1.70	201,000	1.72	3.89	.00	4.45	341,700	113,367
I-5 n/o Cristianitos	1.75	189,000	.00	.00	.00	.00	330,750	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,033,240	359,143
Percent of daily VMT that occurs under congested conditions								5.1%

Table D-60

2025 I-5 CONGESTION SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	411,000	.00	.00	.00	.00	197,280	0
I-5 n/o Lake Forest	.94	403,000	.00	.00	.00	.00	378,820	0
I-5 n/o El Toro	1.20	400,000	2.68	.00	.00	.00	480,000	40,275
I-5 n/o Alicia	1.22	386,000	1.95	.00	1.00	5.70	470,920	127,288
I-5 n/o La Paz	.92	358,000	1.45	1.71	.00	2.44	329,360	64,672
I-5 n/o Oso	1.36	352,000	2.99	1.00	.00	2.73	478,720	107,332
I-5 n/o Crown Valley	1.45	327,000	.00	.00	.00	.66	474,150	11,538
I-5 n/o Avery	1.22	301,000	.00	.00	.00	.00	367,220	0
I-5 n/o SR 73	.42	257,000	.00	.00	.00	.00	107,940	0
I-5 n/o Junipero Serra	1.58	349,000	.00	.00	.00	.00	551,420	0
I-5 n/o Ortega	1.32	338,000	2.52	.00	.00	3.68	446,160	91,022
I-5 n/o Camino Capistrano	.92	316,000	4.44	4.08	.00	5.84	290,720	126,310
I-5 n/o Stonehill	1.22	314,000	4.44	4.45	.00	5.56	383,080	167,975
I-5 n/o PCH/Las Ramblas	.68	302,000	3.40	2.44	.00	5.56	205,360	73,663
I-5 n/o Estrella	.96	315,000	5.54	6.10	3.40	8.64	302,400	192,564
I-5 n/o Hermosa	1.79	305,000	4.93	6.23	2.68	7.60	545,950	328,845
I-5 n/o Pico	.68	288,000	2.34	2.73	.00	4.27	195,840	60,883
I-5 n/o El Camino Real	1.70	215,000	4.34	6.48	1.45	7.49	365,500	204,488
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,309,010	1,596,855
Percent of daily VMT that occurs under congested conditions								21.8%

Table D-61

2025 I-5 CONGESTION SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	411,000	.00	.00	.00	.00	197,280	0
I-5 n/o Lake Forest	.94	403,000	.00	.00	.00	.00	378,820	0
I-5 n/o El Toro	1.20	400,000	2.68	.00	.00	.00	480,000	40,275
I-5 n/o Alicia	1.22	386,000	1.95	.00	1.00	5.56	470,920	125,952
I-5 n/o La Paz	.92	358,000	1.00	1.71	.00	2.11	329,360	56,255
I-5 n/o Oso	1.36	351,000	2.99	.66	.00	2.73	477,360	101,220
I-5 n/o Crown Valley	1.45	326,000	.00	.00	.00	.00	472,700	0
I-5 n/o Avery	1.22	297,000	.00	.00	.00	.00	362,340	0
I-5 n/o SR 73	.42	249,000	.00	.00	.00	.00	104,580	0
I-5 n/o Junipero Serra	1.58	340,000	.00	.00	.00	.00	537,200	0
I-5 n/o Ortega	1.32	333,000	2.16	.00	.00	2.73	439,560	72,699
I-5 n/o Camino Capistrano	.92	306,000	3.78	3.24	.00	4.79	281,520	105,582
I-5 n/o Stonehill	1.22	302,000	3.53	3.47	.00	4.27	368,440	133,902
I-5 n/o PCH/Las Ramblas	.68	290,000	2.16	.00	.00	4.27	197,200	41,409
I-5 n/o Estrella	.96	304,000	2.68	2.73	.00	4.27	291,840	93,426
I-5 n/o Hermosa	1.79	300,000	.66	2.44	.00	3.24	537,000	118,336
I-5 n/o Pico	.68	290,000	.00	.00	.00	.00	197,200	0
I-5 n/o El Camino Real	1.70	216,000	4.34	6.48	1.72	7.49	367,200	208,522
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,228,690	1,097,579
Percent of daily VMT that occurs under congested conditions								15.2%

Table D-62

2025 I-5 CONGESTION SUMMARY – FEC-APV-INICIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	408,000	.00	.00	.00	.00	195,840	0
I-5 n/o Lake Forest	.94	400,000	.00	.00	.00	.00	376,000	0
I-5 n/o El Toro	1.20	397,000	2.16	.00	.00	.00	476,400	33,146
I-5 n/o Alicia	1.22	383,000	.66	.00	.66	4.95	467,260	94,282
I-5 n/o La Paz	.92	354,000	.00	.00	.00	.00	325,680	0
I-5 n/o Oso	1.36	347,000	2.16	.00	.00	.00	471,920	32,835
I-5 n/o Crown Valley	1.45	321,000	.00	.00	.00	.00	465,450	0
I-5 n/o Avery	1.22	290,000	.00	.00	.00	.00	353,800	0
I-5 n/o SR 73	.42	247,000	.00	.00	.00	.00	103,740	0
I-5 n/o Junipero Serra	1.58	336,000	.00	.00	.00	.00	530,880	0
I-5 n/o Ortega	1.32	326,000	.00	.00	.00	.66	430,320	10,471
I-5 n/o Camino Capistrano	.92	300,000	2.99	1.71	.00	3.47	276,000	75,089
I-5 n/o Stonehill	1.22	297,000	2.68	2.44	.00	2.99	362,340	99,394
I-5 n/o PCH/Las Ramblas	.68	285,000	.66	.00	.00	2.99	193,800	24,471
I-5 n/o Estrella	.96	298,000	3.78	4.27	2.52	6.60	286,080	148,719
I-5 n/o Hermosa	1.79	289,000	2.99	4.45	1.95	5.11	517,310	238,546
I-5 n/o Pico	.68	277,000	.00	.00	.00	2.44	188,360	16,287
I-5 n/o El Camino Real	1.70	215,000	4.34	6.48	1.45	7.49	365,500	204,488
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,124,850	977,727
Percent of daily VMT that occurs under congested conditions								13.7%

Table D-63

2025 I-5 CONGESTION SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	409,000	.00	.00	.00	.00	196,320	0
I-5 n/o Lake Forest	.94	401,000	.00	.00	.00	.00	376,940	0
I-5 n/o El Toro	1.20	398,000	2.16	.00	.00	.00	477,600	33,230
I-5 n/o Alicia	1.22	384,000	1.00	.00	.66	5.11	468,480	101,483
I-5 n/o La Paz	.92	355,000	.00	.66	.00	.66	326,600	15,895
I-5 n/o Oso	1.36	348,000	2.34	.00	.00	1.00	473,280	52,608
I-5 n/o Crown Valley	1.45	322,000	.00	.00	.00	.00	466,900	0
I-5 n/o Avery	1.22	293,000	.00	.00	.00	.00	357,460	0
I-5 n/o SR 73	.42	244,000	.00	.00	.00	.00	102,480	0
I-5 n/o Junipero Serra	1.58	333,000	.00	.00	.00	.00	526,140	0
I-5 n/o Ortega	1.32	327,000	.00	.00	.00	.66	431,640	10,503
I-5 n/o Camino Capistrano	.92	298,000	2.84	1.00	.00	3.47	274,160	66,610
I-5 n/o Stonehill	1.22	294,000	2.52	1.71	.00	2.44	358,680	81,745
I-5 n/o PCH/Las Ramblas	.68	281,000	.00	.00	.00	2.44	191,080	16,522
I-5 n/o Estrella	.96	295,000	1.00	.00	.00	2.44	283,200	33,974
I-5 n/o Hermosa	1.79	292,000	.00	.00	.00	.00	522,680	0
I-5 n/o Pico	.68	282,000	.00	.00	.00	.00	191,760	0
I-5 n/o El Camino Real	1.70	215,000	4.34	6.48	1.45	7.49	365,500	204,488
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,129,070	617,059
Percent of daily VMT that occurs under congested conditions								8.7%

Table D-64

2025 I-5 CONGESTION SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	405,000	.00	.00	.00	.00	194,400	0
I-5 n/o Lake Forest	.94	397,000	.00	.00	.00	.00	373,180	0
I-5 n/o El Toro	1.20	394,000	1.72	.00	.00	.00	472,800	26,709
I-5 n/o Alicia	1.22	380,000	.00	.00	.00	4.27	463,600	65,094
I-5 n/o La Paz	.92	350,000	.00	.00	.00	.00	322,000	0
I-5 n/o Oso	1.36	342,000	1.72	.00	.00	.00	465,120	26,275
I-5 n/o Crown Valley	1.45	315,000	.00	.00	.00	.00	456,750	0
I-5 n/o Avery	1.22	285,000	.00	.00	.00	.00	347,700	0
I-5 n/o SR 73	.42	240,000	.00	.00	.00	.00	100,800	0
I-5 n/o Junipero Serra	1.58	324,000	.00	.00	.00	.00	511,920	0
I-5 n/o Ortega	1.32	314,000	.00	.00	.00	.00	414,480	0
I-5 n/o Camino Capistrano	.92	285,000	1.95	.00	.00	.66	262,200	23,010
I-5 n/o Stonehill	1.22	281,000	1.45	.00	.00	.00	342,820	16,488
I-5 n/o PCH/Las Ramblas	.68	268,000	.00	.00	.00	.00	182,240	0
I-5 n/o Estrella	.96	281,000	2.68	1.00	.00	5.11	269,760	75,855
I-5 n/o Hermosa	1.79	274,000	1.45	2.44	.00	3.47	490,460	124,052
I-5 n/o Pico	.68	252,000	.00	.00	.00	.00	171,360	0
I-5 n/o El Camino Real	1.70	218,000	.00	.00	.00	.00	370,600	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,950,360	357,481
Percent of daily VMT that occurs under congested conditions								5.1%

Table D-65

2025 I-5 CONGESTION SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	406,000	.00	.00	.00	.00	194,880	0
I-5 n/o Lake Forest	.94	398,000	.00	.00	.00	.00	374,120	0
I-5 n/o El Toro	1.20	395,000	1.95	.00	.00	.00	474,000	30,062
I-5 n/o Alicia	1.22	380,000	.00	.00	.00	4.62	463,600	69,183
I-5 n/o La Paz	.92	351,000	.00	.00	.00	.00	322,920	0
I-5 n/o Oso	1.36	344,000	1.95	.00	.00	.00	467,840	29,672
I-5 n/o Crown Valley	1.45	316,000	.00	.00	.00	.00	458,200	0
I-5 n/o Avery	1.22	286,000	.00	.00	.00	.00	348,920	0
I-5 n/o SR 73	.42	238,000	.00	.00	.00	.00	99,960	0
I-5 n/o Junipero Serra	1.58	321,000	.00	.00	.00	.00	507,180	0
I-5 n/o Ortega	1.32	315,000	.00	.00	.00	.00	415,800	0
I-5 n/o Camino Capistrano	.92	285,000	1.95	.00	.00	.66	262,200	23,010
I-5 n/o Stonehill	1.22	280,000	1.45	.00	.00	.00	341,600	16,429
I-5 n/o PCH/Las Ramblas	.68	267,000	.00	.00	.00	.00	181,560	0
I-5 n/o Estrella	.96	281,000	.00	.00	.00	.00	269,760	0
I-5 n/o Hermosa	1.79	278,000	.00	.00	.00	.00	497,620	0
I-5 n/o Pico	.68	259,000	.00	.00	.00	.00	176,120	0
I-5 n/o El Camino Real	1.70	218,000	.00	.00	.00	.00	370,600	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,965,050	168,355
Percent of daily VMT that occurs under congested conditions								2.4%

Table D-66

2025 I-5 CONGESTION SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	410,000	.00	.00	.00	.00	196,800	0
I-5 n/o Lake Forest	.94	404,000	.00	.00	.00	.00	379,760	0
I-5 n/o El Toro	1.20	402,000	2.52	.00	.00	.00	482,400	38,419
I-5 n/o Alicia	1.22	387,000	1.45	.00	.00	5.11	472,140	98,622
I-5 n/o La Paz	.92	358,000	.00	.00	.00	.00	329,360	0
I-5 n/o Oso	1.36	349,000	2.16	.00	.00	.00	474,640	33,024
I-5 n/o Crown Valley	1.45	320,000	.00	.00	.00	.00	464,000	0
I-5 n/o Avery	1.22	283,000	.00	.00	.00	.00	345,260	0
I-5 n/o SR 73	.42	234,000	.00	.00	.00	.00	98,280	0
I-5 n/o Junipero Serra	1.58	322,000	.00	.00	.00	.00	508,760	0
I-5 n/o Ortega	1.32	316,000	.00	.00	.00	.00	417,120	0
I-5 n/o Camino Capistrano	.92	285,000	2.34	.00	.00	1.71	262,200	35,778
I-5 n/o Stonehill	1.22	280,000	1.95	.00	.00	.00	341,600	21,665
I-5 n/o PCH/Las Ramblas	.68	267,000	.00	.00	.00	.00	181,560	0
I-5 n/o Estrella	.96	280,000	.00	.00	.00	.00	268,800	0
I-5 n/o Hermosa	1.79	277,000	.00	.00	.00	.00	495,830	0
I-5 n/o Pico	.68	258,000	.00	.00	.00	.00	175,440	0
I-5 n/o El Camino Real	1.70	219,000	.00	.00	.00	.00	372,300	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,004,420	227,508
Percent of daily VMT that occurs under congested conditions								3.2%

Table D-67

2025 I-5 CONGESTION SUMMARY – CC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	337,000	.00	.00	.00	.00	161,760	0
I-5 n/o Lake Forest	.94	334,000	.00	.00	.00	.00	313,960	0
I-5 n/o El Toro	1.20	335,000	1.72	.00	.00	.00	402,000	22,709
I-5 n/o Alicia	1.22	326,000	.00	.00	.00	4.45	397,720	57,678
I-5 n/o La Paz	.92	304,000	.00	.00	.00	.00	279,680	0
I-5 n/o Oso	1.36	294,000	1.00	.00	.00	.00	399,840	13,395
I-5 n/o Crown Valley	1.45	266,000	.00	.00	.00	.00	385,700	0
I-5 n/o Avery	1.22	233,000	.00	.00	.00	.00	284,260	0
I-5 n/o SR 73	.42	184,000	.00	.00	.00	.00	77,280	0
I-5 n/o Junipero Serra	1.58	304,000	.00	.00	.00	.00	480,320	0
I-5 n/o Ortega	1.32	298,000	.00	.00	.00	.00	393,360	0
I-5 n/o Camino Capistrano	.92	269,000	2.16	.00	.00	1.00	247,480	26,252
I-5 n/o Stonehill	1.22	264,000	1.95	.00	.00	.00	322,080	20,427
I-5 n/o PCH/Las Ramblas	.68	250,000	.00	.00	.00	.00	170,000	0
I-5 n/o Estrella	.96	262,000	.00	.00	.00	.00	251,520	0
I-5 n/o Hermosa	1.79	260,000	.00	.00	.00	.00	465,400	0
I-5 n/o Pico	.68	241,000	.00	.00	.00	.00	163,880	0
I-5 n/o El Camino Real	1.70	220,000	.00	.00	.00	.00	374,000	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,308,410	140,461
Percent of daily VMT that occurs under congested conditions								2.2%

Table D-68

2025 I-5 CONGESTION SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	408,000	.00	.00	.00	.00	195,840	0
I-5 n/o Lake Forest	.94	400,000	.00	.00	.00	.00	376,000	0
I-5 n/o El Toro	1.20	397,000	2.16	.00	.00	.00	476,400	33,146
I-5 n/o Alicia	1.22	383,000	.66	.00	.66	4.79	467,260	92,532
I-5 n/o La Paz	.92	354,000	.00	.00	.00	.00	325,680	0
I-5 n/o Oso	1.36	347,000	1.95	.00	.00	.00	471,920	29,930
I-5 n/o Crown Valley	1.45	320,000	.00	.00	.00	.00	464,000	0
I-5 n/o Avery	1.22	291,000	.00	.00	.00	.00	355,020	0
I-5 n/o SR 73	.42	245,000	.00	.00	.00	.00	102,900	0
I-5 n/o Junipero Serra	1.58	334,000	.00	.00	.00	.00	527,720	0
I-5 n/o Ortega	1.32	324,000	.00	.00	.00	.00	427,680	0
I-5 n/o Camino Capistrano	.92	297,000	2.68	.00	.00	3.24	273,240	53,411
I-5 n/o Stonehill	1.22	293,000	2.34	1.00	.00	2.44	357,460	70,642
I-5 n/o PCH/Las Ramblas	.68	281,000	.00	.00	.00	2.44	191,080	16,522
I-5 n/o Estrella	.96	294,000	3.53	3.47	2.16	6.36	282,240	134,998
I-5 n/o Hermosa	1.79	286,000	2.68	3.89	1.45	4.79	511,940	212,776
I-5 n/o Pico	.68	281,000	.00	.00	.00	2.11	191,080	14,427
I-5 n/o El Camino Real	1.70	215,000	4.34	6.48	1.45	7.49	365,500	204,488
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,101,130	862,872
Percent of daily VMT that occurs under congested conditions								12.2%

Table D-69

2025 I-5 CONGESTION SUMMARY – CC-ALPV-INICIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion				Daily Vehicle Miles of Travel (VMT)	
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	409,000	.00	.00	.00	.00	196,320	0
I-5 n/o Lake Forest	.94	401,000	.00	.00	.00	.00	376,940	0
I-5 n/o El Toro	1.20	398,000	2.16	.00	.00	.00	477,600	33,230
I-5 n/o Alicia	1.22	384,000	.66	.00	.66	4.95	468,480	94,528
I-5 n/o La Paz	.92	355,000	.00	.00	.00	.00	326,600	0
I-5 n/o Oso	1.36	348,000	2.34	.00	.00	.66	473,280	46,850
I-5 n/o Crown Valley	1.45	322,000	.00	.00	.00	.00	466,900	0
I-5 n/o Avery	1.22	291,000	.00	.00	.00	.00	355,020	0
I-5 n/o SR 73	.42	242,000	.00	.00	.00	.00	101,640	0
I-5 n/o Junipero Serra	1.58	331,000	.00	.00	.00	.00	522,980	0
I-5 n/o Ortega	1.32	325,000	.00	.00	.00	.66	429,000	10,439
I-5 n/o Camino Capistrano	.92	296,000	2.68	.00	.00	2.99	272,320	51,154
I-5 n/o Stonehill	1.22	292,000	2.16	1.00	.00	2.11	356,240	64,687
I-5 n/o PCH/Las Ramblas	.68	279,000	.00	.00	.00	2.11	189,720	14,325
I-5 n/o Estrella	.96	293,000	.66	.00	.00	2.44	281,280	30,603
I-5 n/o Hermosa	1.79	290,000	.00	.00	.00	.00	519,100	0
I-5 n/o Pico	.68	285,000	.00	.00	.00	.00	193,800	0
I-5 n/o El Camino Real	1.70	216,000	4.34	6.48	1.72	7.49	367,200	208,522
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,112,590	554,337
Percent of daily VMT that occurs under congested conditions								7.8%

Table D-70

2025 I-5 CONGESTION SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	412,000	.00	.00	.00	.00	197,760	0
I-5 n/o Lake Forest	.94	404,000	.00	.00	.00	.00	379,760	0
I-5 n/o El Toro	1.20	401,000	2.68	.00	.00	.00	481,200	40,376
I-5 n/o Alicia	1.22	387,000	1.95	.00	1.00	5.56	472,140	126,279
I-5 n/o La Paz	.92	359,000	1.45	1.71	.00	2.44	330,280	64,853
I-5 n/o Oso	1.36	352,000	2.84	1.00	.00	2.73	478,720	105,512
I-5 n/o Crown Valley	1.45	328,000	.00	.00	.00	.00	475,600	0
I-5 n/o Avery	1.22	301,000	.00	.00	.00	.00	367,220	0
I-5 n/o SR 73	.42	256,000	.00	.00	.00	.00	107,520	0
I-5 n/o Junipero Serra	1.58	349,000	.00	.00	.00	.00	551,420	0
I-5 n/o Ortega	1.32	338,000	2.52	.00	.00	3.47	446,160	88,344
I-5 n/o Camino Capistrano	.92	316,000	4.44	4.27	.00	5.84	290,720	127,772
I-5 n/o Stonehill	1.22	314,000	4.34	4.62	.00	5.56	383,080	168,910
I-5 n/o PCH/Las Ramblas	.68	302,000	3.40	2.44	.00	5.56	205,360	73,663
I-5 n/o Estrella	.96	316,000	5.54	6.23	3.53	8.73	303,360	195,023
I-5 n/o Hermosa	1.79	305,000	5.02	6.36	2.84	7.60	545,950	333,135
I-5 n/o Pico	.68	288,000	2.34	2.73	.00	4.27	195,840	60,883
I-5 n/o El Camino Real	1.70	215,000	4.34	6.48	1.45	7.49	365,500	204,488
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,315,760	1,589,236
Percent of daily VMT that occurs under congested conditions								21.7%

Table D-71

2025 I-5 CONGESTION SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	411,000	.00	.00	.00	.00	197,280	0
I-5 n/o Lake Forest	.94	403,000	.00	.00	.00	.00	378,820	0
I-5 n/o El Toro	1.20	400,000	2.52	.00	.00	.00	480,000	38,228
I-5 n/o Alicia	1.22	386,000	1.72	.00	1.00	5.41	470,920	121,183
I-5 n/o La Paz	.92	358,000	1.00	1.71	.00	2.11	329,360	56,255
I-5 n/o Oso	1.36	351,000	2.84	.66	.00	2.44	477,360	94,943
I-5 n/o Crown Valley	1.45	326,000	.00	.00	.00	.00	472,700	0
I-5 n/o Avery	1.22	296,000	.00	.00	.00	.00	361,120	0
I-5 n/o SR 73	.42	248,000	.00	.00	.00	.00	104,160	0
I-5 n/o Junipero Serra	1.58	339,000	.00	.00	.00	.00	535,620	0
I-5 n/o Ortega	1.32	332,000	1.95	.00	.00	2.44	438,240	65,687
I-5 n/o Camino Capistrano	.92	305,000	3.66	2.99	.00	4.62	280,600	101,218
I-5 n/o Stonehill	1.22	301,000	3.40	3.24	.00	4.08	367,220	128,029
I-5 n/o PCH/Las Ramblas	.68	288,000	2.16	.00	.00	4.08	195,840	40,139
I-5 n/o Estrella	.96	303,000	2.68	2.44	.00	4.27	290,880	90,400
I-5 n/o Hermosa	1.79	299,000	.66	1.71	.00	3.24	535,210	104,739
I-5 n/o Pico	.68	290,000	.00	.00	.00	.00	197,200	0
I-5 n/o El Camino Real	1.70	216,000	4.34	6.48	1.72	7.49	367,200	208,522
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,217,900	1,049,344
Percent of daily VMT that occurs under congested conditions								14.5%

Table D-72

2025 I-5 CONGESTION SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	405,000	.00	.00	.00	.00	194,400	0
I-5 n/o Lake Forest	.94	397,000	.00	.00	.00	.00	373,180	0
I-5 n/o El Toro	1.20	394,000	1.72	.00	.00	.00	472,800	26,709
I-5 n/o Alicia	1.22	380,000	.00	.00	.00	4.27	463,600	65,094
I-5 n/o La Paz	.92	350,000	.00	.00	.00	.00	322,000	0
I-5 n/o Oso	1.36	342,000	1.45	.00	.00	.00	465,120	22,370
I-5 n/o Crown Valley	1.45	315,000	.00	.00	.00	.00	456,750	0
I-5 n/o Avery	1.22	286,000	.00	.00	.00	.00	348,920	0
I-5 n/o SR 73	.42	240,000	.00	.00	.00	.00	100,800	0
I-5 n/o Junipero Serra	1.58	324,000	.00	.00	.00	.00	511,920	0
I-5 n/o Ortega	1.32	314,000	.00	.00	.00	.00	414,480	0
I-5 n/o Camino Capistrano	.92	286,000	2.16	.00	.00	.66	263,120	24,710
I-5 n/o Stonehill	1.22	282,000	1.72	.00	.00	.00	344,040	19,435
I-5 n/o PCH/Las Ramblas	.68	269,000	.00	.00	.00	.00	182,920	0
I-5 n/o Estrella	.96	282,000	2.84	1.71	.00	5.26	270,720	85,002
I-5 n/o Hermosa	1.79	276,000	1.45	2.73	.00	3.68	494,040	132,540
I-5 n/o Pico	.68	255,000	.00	.00	.00	.00	173,400	0
I-5 n/o El Camino Real	1.70	219,000	.00	.00	.00	.00	372,300	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,962,680	375,858
Percent of daily VMT that occurs under congested conditions								5.4%

Table D-73

2025 I-5 CONGESTION SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	406,000	.00	.00	.00	.00	194,880	0
I-5 n/o Lake Forest	.94	398,000	.00	.00	.00	.00	374,120	0
I-5 n/o El Toro	1.20	395,000	1.95	.00	.00	.00	474,000	30,062
I-5 n/o Alicia	1.22	380,000	.00	.00	.00	4.62	463,600	69,183
I-5 n/o La Paz	.92	351,000	.00	.00	.00	.00	322,920	0
I-5 n/o Oso	1.36	344,000	1.95	.00	.00	.00	467,840	29,672
I-5 n/o Crown Valley	1.45	317,000	.00	.00	.00	.00	459,650	0
I-5 n/o Avery	1.22	287,000	.00	.00	.00	.00	350,140	0
I-5 n/o SR 73	.42	238,000	.00	.00	.00	.00	99,960	0
I-5 n/o Junipero Serra	1.58	321,000	.00	.00	.00	.00	507,180	0
I-5 n/o Ortega	1.32	315,000	.00	.00	.00	.00	415,800	0
I-5 n/o Camino Capistrano	.92	286,000	1.95	.00	.00	1.00	263,120	26,292
I-5 n/o Stonehill	1.22	281,000	1.45	.00	.00	.00	342,820	16,488
I-5 n/o PCH/Las Ramblas	.68	268,000	.00	.00	.00	.00	182,240	0
I-5 n/o Estrella	.96	282,000	.00	.00	.00	.00	270,720	0
I-5 n/o Hermosa	1.79	279,000	.00	.00	.00	.00	499,410	0
I-5 n/o Pico	.68	262,000	.00	.00	.00	.00	178,160	0
I-5 n/o El Camino Real	1.70	219,000	.00	.00	.00	.00	372,300	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,977,030	171,696
Percent of daily VMT that occurs under congested conditions								2.5%

Table D-74

2025 I-5 CONGESTION SUMMARY – A7C-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	341,000	.00	.00	.00	.00	163,680	0
I-5 n/o Lake Forest	.94	338,000	.00	.00	.00	.00	317,720	0
I-5 n/o El Toro	1.20	338,000	1.72	.00	.00	.00	405,600	22,912
I-5 n/o Alicia	1.22	330,000	.00	.00	.00	4.45	402,600	58,386
I-5 n/o La Paz	.92	308,000	.00	.00	.00	.00	283,360	0
I-5 n/o Oso	1.36	299,000	1.00	.00	.00	.00	406,640	13,622
I-5 n/o Crown Valley	1.45	271,000	.00	.00	.00	.00	392,950	0
I-5 n/o Avery	1.22	238,000	.00	.00	.00	.00	290,360	0
I-5 n/o SR 73	.42	189,000	.00	.00	.00	.00	79,380	0
I-5 n/o Junipero Serra	1.58	311,000	.00	.00	.00	.00	491,380	0
I-5 n/o Ortega	1.32	304,000	.00	.00	.00	.00	401,280	0
I-5 n/o Camino Capistrano	.92	273,000	2.16	.00	.00	1.71	251,160	32,996
I-5 n/o Stonehill	1.22	268,000	1.72	.00	.00	.00	326,960	18,470
I-5 n/o PCH/Las Ramblas	.68	254,000	.00	.00	.00	.00	172,720	0
I-5 n/o Estrella	.96	266,000	.00	.00	.00	.00	255,360	0
I-5 n/o Hermosa	1.79	263,000	.00	.00	.00	.00	470,770	0
I-5 n/o Pico	.68	246,000	.00	.00	.00	.00	167,280	0
I-5 n/o El Camino Real	1.70	220,000	.00	.00	.00	.00	374,000	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,391,370	146,387
Percent of daily VMT that occurs under congested conditions								2.3%

Table D-75

2025 I-5 CONGESTION SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	404,000	.00	.00	.00	.00	193,920	0
I-5 n/o Lake Forest	.94	396,000	.00	.00	.00	.00	372,240	0
I-5 n/o El Toro	1.20	393,000	1.72	.00	.00	.00	471,600	26,641
I-5 n/o Alicia	1.22	378,000	.00	.00	.00	4.27	461,160	64,751
I-5 n/o La Paz	.92	349,000	.00	.00	.00	.00	321,080	0
I-5 n/o Oso	1.36	342,000	1.45	.00	.00	.00	465,120	22,370
I-5 n/o Crown Valley	1.45	314,000	.00	.00	.00	.00	455,300	0
I-5 n/o Avery	1.22	286,000	.00	.00	.00	.00	348,920	0
I-5 n/o SR 73	.42	240,000	.00	.00	.00	.00	100,800	0
I-5 n/o Junipero Serra	1.58	322,000	.00	.00	.00	.00	508,760	0
I-5 n/o Ortega	1.32	313,000	.00	.00	.00	.00	413,160	0
I-5 n/o Camino Capistrano	.92	285,000	2.16	.00	.00	.66	262,200	24,623
I-5 n/o Stonehill	1.22	282,000	1.72	.00	.00	.00	344,040	19,435
I-5 n/o PCH/Las Ramblas	.68	269,000	.00	.00	.00	.00	182,920	0
I-5 n/o Estrella	.96	282,000	2.84	1.00	.00	5.11	270,720	77,258
I-5 n/o Hermosa	1.79	274,000	1.45	2.11	.00	2.99	490,460	111,598
I-5 n/o Pico	.68	258,000	.00	.00	.00	.00	175,440	0
I-5 n/o El Camino Real	1.70	188,000	.00	.00	.00	.66	319,600	7,777
I-5 n/o Cristianitos	1.75	177,000	.00	.00	.00	.00	309,750	0
I-5 s/o Cristianitos	.92	172,000	.00	.00	.00	.00	158,240	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,823,430	354,453
Percent of daily VMT that occurs under congested conditions								5.2%

Table D-76

2025 I-5 CONGESTION SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	405,000	.00	.00	.00	.00	194,400	0
I-5 n/o Lake Forest	.94	397,000	.00	.00	.00	.00	373,180	0
I-5 n/o El Toro	1.20	394,000	1.95	.00	.00	.00	472,800	29,986
I-5 n/o Alicia	1.22	380,000	.00	.00	.00	4.45	463,600	67,232
I-5 n/o La Paz	.92	350,000	.00	.00	.00	.00	322,000	0
I-5 n/o Oso	1.36	343,000	1.95	.00	.00	.00	466,480	29,585
I-5 n/o Crown Valley	1.45	316,000	.00	.00	.00	.00	458,200	0
I-5 n/o Avery	1.22	286,000	.00	.00	.00	.00	348,920	0
I-5 n/o SR 73	.42	237,000	.00	.00	.00	.00	99,540	0
I-5 n/o Junipero Serra	1.58	319,000	.00	.00	.00	.00	504,020	0
I-5 n/o Ortega	1.32	314,000	.00	.00	.00	.00	414,480	0
I-5 n/o Camino Capistrano	.92	284,000	1.95	.00	.00	.66	261,280	22,929
I-5 n/o Stonehill	1.22	280,000	1.45	.00	.00	.00	341,600	16,429
I-5 n/o PCH/Las Ramblas	.68	267,000	.00	.00	.00	.00	181,560	0
I-5 n/o Estrella	.96	281,000	.00	.00	.00	.00	269,760	0
I-5 n/o Hermosa	1.79	277,000	.00	.00	.00	.00	495,830	0
I-5 n/o Pico	.68	264,000	.00	.00	.00	.00	179,520	0
I-5 n/o El Camino Real	1.70	190,000	.00	2.11	.00	2.73	323,000	55,336
I-5 n/o Cristianitos	1.75	179,000	.00	.00	.00	.00	313,250	0
I-5 s/o Cristianitos	.92	174,000	.00	.00	.00	.00	160,080	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,841,500	221,497
Percent of daily VMT that occurs under congested conditions								3.2%

Table D-77

2025 I-5 CONGESTION SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH CP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	410,000	.00	.00	.00	.00	196,800	0
I-5 n/o Lake Forest	.94	404,000	.00	.00	.00	.00	379,760	0
I-5 n/o El Toro	1.20	401,000	2.34	.00	.00	.00	481,200	35,925
I-5 n/o Alicia	1.22	387,000	1.00	.00	.00	5.11	472,140	91,732
I-5 n/o La Paz	.92	358,000	.66	.00	.00	.00	329,360	7,356
I-5 n/o Oso	1.36	349,000	1.72	.00	.00	.00	474,640	26,813
I-5 n/o Crown Valley	1.45	320,000	.00	.00	.00	.00	464,000	0
I-5 n/o Avery	1.22	284,000	.00	.00	.00	.00	346,480	0
I-5 n/o SR 73	.42	235,000	.00	.00	.00	.00	98,700	0
I-5 n/o Junipero Serra	1.58	323,000	.00	.00	.00	.00	510,340	0
I-5 n/o Ortega	1.32	317,000	.00	.00	.00	.00	418,440	0
I-5 n/o Camino Capistrano	.92	286,000	2.16	.00	.00	1.71	263,120	34,567
I-5 n/o Stonehill	1.22	282,000	1.95	.00	.00	.00	344,040	21,820
I-5 n/o PCH/Las Ramblas	.68	268,000	.00	.00	.00	.00	182,240	0
I-5 n/o Estrella	.96	282,000	.00	.00	.00	.00	270,720	0
I-5 n/o Hermosa	1.79	277,000	.00	.00	.00	.00	495,830	0
I-5 n/o Pico	.68	264,000	.00	.00	.00	.00	179,520	0
I-5 n/o El Camino Real	1.70	191,000	.00	2.11	.00	2.99	324,700	58,265
I-5 n/o Cristianitos	1.75	179,000	.00	.00	.00	.00	313,250	0
I-5 s/o Cristianitos	.92	174,000	.00	.00	.00	.00	160,080	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,903,360	276,477
Percent of daily VMT that occurs under congested conditions								4.0%

Table D-78

2025 I-5 CONGESTION SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	406,000	.00	.00	.00	.00	194,880	0
I-5 n/o Lake Forest	.94	399,000	.00	.00	.00	.00	375,060	0
I-5 n/o El Toro	1.20	395,000	1.95	.00	.00	.00	474,000	30,062
I-5 n/o Alicia	1.22	381,000	.00	.00	.00	4.62	464,820	69,365
I-5 n/o La Paz	.92	352,000	.00	.00	.00	.00	323,840	0
I-5 n/o Oso	1.36	345,000	1.72	.00	.00	.00	469,200	26,505
I-5 n/o Crown Valley	1.45	318,000	.00	.00	.00	.00	461,100	0
I-5 n/o Avery	1.22	289,000	.00	.00	.00	.00	352,580	0
I-5 n/o SR 73	.42	244,000	.00	.00	.00	.00	102,480	0
I-5 n/o Junipero Serra	1.58	331,000	.00	.00	.00	.00	522,980	0
I-5 n/o Ortega	1.32	321,000	.00	.00	.00	.00	423,720	0
I-5 n/o Camino Capistrano	.92	294,000	2.52	.00	.00	2.44	270,480	44,929
I-5 n/o Stonehill	1.22	291,000	2.16	.00	.00	1.71	355,020	46,640
I-5 n/o PCH/Las Ramblas	.68	278,000	.00	.00	.00	1.71	189,040	11,682
I-5 n/o Estrella	.96	291,000	3.40	2.73	1.45	5.97	279,360	118,508
I-5 n/o Hermosa	1.79	283,000	2.34	3.24	.66	4.27	506,570	176,776
I-5 n/o Pico	.68	268,000	.00	.00	.00	.00	182,240	0
I-5 n/o El Camino Real	1.70	198,000	.00	2.99	.00	3.89	336,600	78,832
I-5 n/o Cristianitos	1.75	186,000	.00	.00	.00	.00	325,500	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							6,992,390	603,300
Percent of daily VMT that occurs under congested conditions								8.6%

Table D-79

2025 I-5 CONGESTION SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	407,000	.00	.00	.00	.00	195,360	0
I-5 n/o Lake Forest	.94	400,000	.00	.00	.00	.00	376,000	0
I-5 n/o El Toro	1.20	396,000	1.95	.00	.00	.00	475,200	30,138
I-5 n/o Alicia	1.22	382,000	.66	.00	.00	4.79	466,040	81,882
I-5 n/o La Paz	.92	353,000	.00	.00	.00	.00	324,760	0
I-5 n/o Oso	1.36	346,000	2.16	.00	.00	.00	470,560	32,740
I-5 n/o Crown Valley	1.45	320,000	.00	.00	.00	.00	464,000	0
I-5 n/o Avery	1.22	290,000	.00	.00	.00	.00	353,800	0
I-5 n/o SR 73	.42	241,000	.00	.00	.00	.00	101,220	0
I-5 n/o Junipero Serra	1.58	328,000	.00	.00	.00	.00	518,240	0
I-5 n/o Ortega	1.32	322,000	.00	.00	.00	.00	425,040	0
I-5 n/o Camino Capistrano	.92	293,000	2.34	.00	.00	2.11	269,560	40,478
I-5 n/o Stonehill	1.22	289,000	1.95	.00	.00	.00	352,580	22,361
I-5 n/o PCH/Las Ramblas	.68	276,000	.00	.00	.00	.00	187,680	0
I-5 n/o Estrella	.96	290,000	.00	.00	.00	.66	278,400	6,774
I-5 n/o Hermosa	1.79	286,000	.00	.00	.00	.00	511,940	0
I-5 n/o Pico	.68	274,000	.00	.00	.00	.00	186,320	0
I-5 n/o El Camino Real	1.70	201,000	1.72	3.68	.00	4.45	341,700	111,354
I-5 n/o Cristianitos	1.75	188,000	.00	.00	.00	.00	329,000	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,010,320	325,728
Percent of daily VMT that occurs under congested conditions								4.6%

Table D-80

2025 I-5 CONGESTION SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	412,000	.00	.00	.00	.00	197,760	0
I-5 n/o Lake Forest	.94	404,000	.00	.00	.00	.00	379,760	0
I-5 n/o El Toro	1.20	401,000	2.52	.00	.00	.00	481,200	38,323
I-5 n/o Alicia	1.22	387,000	1.72	.00	1.00	5.56	472,140	123,006
I-5 n/o La Paz	.92	359,000	1.00	1.00	.00	2.11	330,280	48,057
I-5 n/o Oso	1.36	352,000	2.84	.66	.00	2.44	478,720	95,214
I-5 n/o Crown Valley	1.45	321,000	.00	.00	.00	.00	465,450	0
I-5 n/o Avery	1.22	291,000	.00	.00	.00	.00	355,020	0
I-5 n/o SR 73	.42	242,000	.00	.00	.00	.00	101,640	0
I-5 n/o Junipero Serra	1.58	333,000	.00	.00	.00	.00	526,140	0
I-5 n/o Ortega	1.32	327,000	1.00	.00	.00	1.71	431,640	41,134
I-5 n/o Camino Capistrano	.92	300,000	2.99	1.00	.00	3.68	276,000	69,763
I-5 n/o Stonehill	1.22	296,000	2.68	1.71	.00	2.99	361,120	90,151
I-5 n/o PCH/Las Ramblas	.68	284,000	.00	.00	.00	2.99	193,120	20,073
I-5 n/o Estrella	.96	298,000	1.72	.00	.00	3.24	286,080	48,078
I-5 n/o Hermosa	1.79	295,000	.00	.00	.00	1.71	528,050	32,632
I-5 n/o Pico	.68	287,000	.00	.00	.00	.00	195,160	0
I-5 n/o El Camino Real	1.70	215,000	4.34	6.48	1.45	7.49	365,500	204,488
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,162,950	810,918
Percent of daily VMT that occurs under congested conditions								11.3%

Table D-81

2025 I-5 CONGESTION SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	417,000	.00	.00	.00	.00	200,160	0
I-5 n/o Lake Forest	.94	411,000	.00	.00	.00	.00	386,340	0
I-5 n/o El Toro	1.20	408,000	2.99	.00	.00	.00	489,600	44,992
I-5 n/o Alicia	1.22	394,000	2.16	.00	1.00	5.97	480,680	135,402
I-5 n/o La Paz	.92	367,000	2.16	1.71	.00	2.73	337,640	76,707
I-5 n/o Oso	1.36	358,000	2.84	1.00	.00	2.99	486,880	111,267
I-5 n/o Crown Valley	1.45	328,000	.00	.00	.00	.00	475,600	0
I-5 n/o Avery	1.22	294,000	.00	.00	.00	.00	358,680	0
I-5 n/o SR 73	.42	245,000	.00	.00	.00	.00	102,900	0
I-5 n/o Junipero Serra	1.58	340,000	.00	.00	.00	.00	537,200	0
I-5 n/o Ortega	1.32	332,000	1.72	.00	.00	2.73	438,240	66,745
I-5 n/o Camino Capistrano	.92	302,000	3.40	1.00	.00	4.27	277,840	77,408
I-5 n/o Stonehill	1.22	298,000	3.13	2.44	.00	3.89	363,560	113,449
I-5 n/o PCH/Las Ramblas	.68	285,000	1.72	.00	.00	3.89	193,800	36,192
I-5 n/o Estrella	.96	298,000	1.95	.66	.00	3.47	286,080	58,968
I-5 n/o Hermosa	1.79	295,000	.00	.00	.00	1.71	528,050	32,632
I-5 n/o Pico	.68	287,000	.00	.00	.00	.00	195,160	0
I-5 n/o El Camino Real	1.70	216,000	4.34	6.48	1.72	7.49	367,200	208,522
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,243,780	962,284
Percent of daily VMT that occurs under congested conditions								13.3%

Table D-82

2025 I-5 CONGESTION SUMMARY – AIP ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	417,000	.00	.00	.00	.00	200,160	0
I-5 n/o Lake Forest	.94	410,000	.00	.00	.00	.00	385,400	0
I-5 n/o El Toro	1.20	407,000	.00	.00	.00	.00	488,400	0
I-5 n/o Alicia	1.22	394,000	.00	.00	.00	2.73	480,680	46,055
I-5 n/o La Paz	.92	366,000	.00	.00	.00	.00	336,720	0
I-5 n/o Oso	1.36	358,000	.00	.00	.00	.00	486,880	0
I-5 n/o Crown Valley	1.45	327,000	.00	.00	.00	.00	474,150	0
I-5 n/o Avery	1.22	297,000	.00	.00	.00	.00	362,340	0
I-5 n/o SR 73	.42	249,000	.00	.00	.00	.00	104,580	0
I-5 n/o Junipero Serra	1.58	337,000	.00	.00	.00	.00	532,460	0
I-5 n/o Ortega	1.32	331,000	.00	.00	.00	.00	436,920	0
I-5 n/o Camino Capistrano	.92	302,000	.00	.00	.00	.00	277,840	0
I-5 n/o Stonehill	1.22	297,000	.00	.00	.00	.00	362,340	0
I-5 n/o PCH/Las Ramblas	.68	285,000	.00	.00	.00	.00	193,800	0
I-5 n/o Estrella	.96	298,000	.00	.00	.00	.00	286,080	0
I-5 n/o Hermosa	1.79	294,000	.00	.00	.00	.00	526,260	0
I-5 n/o Pico	.68	287,000	.00	.00	.00	.00	195,160	0
I-5 n/o El Camino Real	1.70	216,000	1.45	3.24	.00	4.79	367,200	114,942
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,235,540	160,998
Percent of daily VMT that occurs under congested conditions								2.2%

Table D-83

2025 I-5 CONGESTION SUMMARY – AIP ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	422,000	.00	.00	.00	.00	202,560	0
I-5 n/o Lake Forest	.94	417,000	.00	.00	.00	.00	391,980	0
I-5 n/o El Toro	1.20	414,000	.00	.00	.00	.00	496,800	0
I-5 n/o Alicia	1.22	401,000	.00	.00	.00	3.47	489,220	57,909
I-5 n/o La Paz	.92	374,000	.00	.00	.00	.00	344,080	0
I-5 n/o Oso	1.36	366,000	.00	.00	.00	.00	497,760	0
I-5 n/o Crown Valley	1.45	335,000	.00	.00	.00	.00	485,750	0
I-5 n/o Avery	1.22	300,000	.00	.00	.00	.00	366,000	0
I-5 n/o SR 73	.42	253,000	.00	.00	.00	.00	106,260	0
I-5 n/o Junipero Serra	1.58	345,000	.00	.00	.00	.00	545,100	0
I-5 n/o Ortega	1.32	338,000	.00	.00	.00	.00	446,160	0
I-5 n/o Camino Capistrano	.92	304,000	.00	.00	.00	.00	279,680	0
I-5 n/o Stonehill	1.22	299,000	.00	.00	.00	.00	364,780	0
I-5 n/o PCH/Las Ramblas	.68	286,000	.00	.00	.00	.00	194,480	0
I-5 n/o Estrella	.96	299,000	.00	.00	.00	.00	287,040	0
I-5 n/o Hermosa	1.79	295,000	.00	.00	.00	.00	528,050	0
I-5 n/o Pico	.68	287,000	.00	.00	.00	.00	195,160	0
I-5 n/o El Camino Real	1.70	217,000	1.45	3.47	.00	4.95	368,900	119,366
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,327,930	177,274
Percent of daily VMT that occurs under congested conditions								2.4%

Table D-84

2025 I-5 CONGESTION SUMMARY – I-5 ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	444,000	.00	.00	.00	.00	213,120	0
I-5 n/o Lake Forest	.94	442,000	.00	.00	.00	.00	415,480	0
I-5 n/o El Toro	1.20	440,000	.00	.00	.00	.00	528,000	0
I-5 n/o Alicia	1.22	430,000	1.95	.00	.00	2.44	524,600	78,631
I-5 n/o La Paz	.92	399,000	.00	.00	.00	.00	367,080	0
I-5 n/o Oso	1.36	390,000	.00	.00	.00	.00	530,400	0
I-5 n/o Crown Valley	1.45	360,000	.00	.00	.00	.00	522,000	0
I-5 n/o Avery	1.22	329,000	.00	.00	.00	.00	401,380	0
I-5 n/o SR 73	.42	282,000	.00	.00	.00	.00	118,440	0
I-5 n/o Junipero Serra	1.58	358,000	.00	.00	.00	.00	565,640	0
I-5 n/o Ortega	1.32	349,000	.00	.00	.00	.00	460,680	0
I-5 n/o Camino Capistrano	.92	328,000	.00	.00	.00	.00	301,760	0
I-5 n/o Stonehill	1.22	325,000	.00	.00	.00	.00	396,500	0
I-5 n/o PCH/Las Ramblas	.68	311,000	.00	.00	.00	.00	211,480	0
I-5 n/o Estrella	.96	326,000	.00	.00	.00	.00	312,960	0
I-5 n/o Hermosa	1.79	317,000	.00	.00	.00	.00	567,430	0
I-5 n/o Pico	.68	298,000	.00	.00	.00	.00	202,640	0
I-5 n/o El Camino Real	1.70	218,000	.00	.00	.00	.00	370,600	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,748,360	78,631
Percent of daily VMT that occurs under congested conditions								1.0%

Table D-85

2025 I-5 CONGESTION SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	444,000	.00	.00	.00	.00	213,120	0
I-5 n/o Lake Forest	.94	442,000	.00	.00	.00	.00	415,480	0
I-5 n/o El Toro	1.20	440,000	.00	.00	.00	.00	528,000	0
I-5 n/o Alicia	1.22	430,000	1.95	.00	.00	2.44	524,600	78,631
I-5 n/o La Paz	.92	398,000	.00	.00	.00	.00	366,160	0
I-5 n/o Oso	1.36	390,000	.00	.00	.00	.00	530,400	0
I-5 n/o Crown Valley	1.45	359,000	.00	.00	.00	.00	520,550	0
I-5 n/o Avery	1.22	326,000	.00	.00	.00	.00	397,720	0
I-5 n/o SR 73	.42	276,000	.00	.00	.00	.00	115,920	0
I-5 n/o Junipero Serra	1.58	350,000	.00	.00	.00	.00	553,000	0
I-5 n/o Ortega	1.32	345,000	.00	.00	.00	.00	455,400	0
I-5 n/o Camino Capistrano	.92	319,000	.00	.00	.00	.00	293,480	0
I-5 n/o Stonehill	1.22	313,000	.00	.00	.00	.00	381,860	0
I-5 n/o PCH/Las Ramblas	.68	300,000	.00	.00	.00	.00	204,000	0
I-5 n/o Estrella	.96	312,000	.00	.00	.00	.00	299,520	0
I-5 n/o Hermosa	1.79	308,000	.00	.00	.00	.00	551,320	0
I-5 n/o Pico	.68	294,000	.00	.00	.00	.00	199,920	0
I-5 n/o El Camino Real	1.70	217,000	.00	.00	.00	.00	368,900	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basillone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basillone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,657,520	78,631
Percent of daily VMT that occurs under congested conditions								1.0%

Table D-86

2025 I-5 CONGESTION SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Location	Distance (miles)	Average Daily Traffic (ADT)	Hours of Congestion			Daily Vehicle Miles of Travel (VMT)		
			AM Northbound	PM Northbound	AM Southbound	PM Southbound	Total	Congested
I-5 n/o Bake	.48	451,000	.00	.00	.00	.00	216,480	0
I-5 n/o Lake Forest	.94	450,000	.00	.00	.00	.00	423,000	0
I-5 n/o El Toro	1.20	448,000	.00	.00	.00	.00	537,600	0
I-5 n/o Alicia	1.22	439,000	2.52	.00	.00	2.73	535,580	93,970
I-5 n/o La Paz	.92	408,000	.00	.00	.00	.00	375,360	0
I-5 n/o Oso	1.36	399,000	.00	.00	.00	.00	542,640	0
I-5 n/o Crown Valley	1.45	370,000	.00	.00	.00	.00	536,500	0
I-5 n/o Avery	1.22	330,000	.00	.00	.00	.00	402,600	0
I-5 n/o SR 73	.42	280,000	.00	.00	.00	.00	117,600	0
I-5 n/o Junipero Serra	1.58	360,000	.00	.00	.00	.00	568,800	0
I-5 n/o Ortega	1.32	354,000	.00	.00	.00	.00	467,280	0
I-5 n/o Camino Capistrano	.92	322,000	.00	.00	.00	.00	296,240	0
I-5 n/o Stonehill	1.22	316,000	.00	.00	.00	.00	385,520	0
I-5 n/o PCH/Las Ramblas	.68	302,000	.00	.00	.00	.00	205,360	0
I-5 n/o Estrella	.96	314,000	.00	.00	.00	.00	301,440	0
I-5 n/o Hermosa	1.79	309,000	.00	.00	.00	.00	553,110	0
I-5 n/o Pico	.68	295,000	.00	.00	.00	.00	200,600	0
I-5 n/o El Camino Real	1.70	218,000	.00	.00	.00	.00	370,600	0
I-5 n/o Cristianitos	1.75	203,000	.00	.00	.00	.00	355,250	0
I-5 s/o Cristianitos	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 n/o Basilone	.46	201,000	.00	.00	.00	.00	92,460	0
I-5 s/o Basilone	1.00	198,000	.00	.00	.00	.00	198,000	0
VMT Totals							7,774,480	93,970
Percent of daily VMT that occurs under congested conditions								1.2%

APPENDIX E
FREEWAY/TOLLWAY RAMP PEAK HOUR LOS SUMMARIES

This appendix summarizes existing and long-range (year 2025) AM and PM peak hour V/C ratios and corresponding levels of service for freeway/tollway ramps in the SOCTIIP traffic analysis study area. Year 2025 summary tables are included for the SOCTIIP No Action Alternative and the SOCTIIP Build Alternative scenarios that were studied in the SOCTIIP traffic and circulation analysis. For freeway/tollway ramps that are adversely impacted by the various Build Alternatives, V/C ratios with and without freeway/tollway ramp mitigation are included in the summary tables. The summary tables that are included in this appendix are listed below.

LIST OF TABLES

Table	Page
E-1 Existing Freeway/Tollway Ramp LOS Summary.....	E-4
E-2 2025 Freeway/Tollway Ramp LOS Summary – No Action Alternative (Committed Circulation System with Proposed RMV Plan).....	E-6
E-3 2025 Freeway/Tollway Ramp LOS Summary – No Action Alternative (Committed Circulation System with OCP-2000 for RMV).....	E-9
E-4 2025 Freeway/Tollway Ramp LOS Summary – No Action Alternative (Committed Circulation System with Existing General Plan for RMV).....	E-12
E-5 2025 Freeway/Tollway Ramp LOS Summary – No Action Alternative (Committed Circulation System with No Future Development in RMV).....	E-15
E-6 2025 Freeway/Tollway Ramp LOS Summary – No Action Alternative (Buildout Circulation System with Proposed RMV Plan).....	E-18
E-7 2025 Freeway/Tollway Ramp LOS Summary – No Action Alternative (Buildout Circulation System with OCP-2000 for RMV).....	E-21
E-8 2025 Freeway/Tollway Ramp LOS Summary – FEC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	E-24
E-9 2025 Freeway/Tollway Ramp LOS Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	E-27
E-10 2025 Freeway/Tollway Ramp LOS Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	E-30
E-11 2025 Freeway/Tollway Ramp LOS Summary – FEC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV).....	E-33
E-12 2025 Freeway/Tollway Ramp LOS Summary – FEC-TV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	E-36
E-13 2025 Freeway/Tollway Ramp LOS Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	E-39
E-14 2025 Freeway/Tollway Ramp LOS Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	E-42
E-15 2025 Freeway/Tollway Ramp LOS Summary – FEC-CV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	E-45

LIST OF TABLES (cont)

Table	Page
E-16 2025 Freeway/Tollway Ramp LOS Summary – FEC-CV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	E-48
E-17 2025 Freeway/Tollway Ramp LOS Summary – FEC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	E-51
E-18 2025 Freeway/Tollway Ramp LOS Summary – FEC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	E-54
E-19 2025 Freeway/Tollway Ramp LOS Summary – FEC-APV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	E-57
E-20 2025 Freeway/Tollway Ramp LOS Summary – FEC-APV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	E-60
E-21 2025 Freeway/Tollway Ramp LOS Summary – CC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	E-63
E-22 2025 Freeway/Tollway Ramp LOS Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	E-66
E-23 2025 Freeway/Tollway Ramp LOS Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)	E-69
E-24 2025 Freeway/Tollway Ramp LOS Summary – CC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	E-72
E-25 2025 Freeway/Tollway Ramp LOS Summary – CC-ALPV-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	E-75
E-26 2025 Freeway/Tollway Ramp LOS Summary – CC-ALPV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	E-78
E-27 2025 Freeway/Tollway Ramp LOS Summary – CC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	E-81
E-28 2025 Freeway/Tollway Ramp LOS Summary – CC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	E-84
E-29 2025 Freeway/Tollway Ramp LOS Summary – A7C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	E-87
E-30 2025 Freeway/Tollway Ramp LOS Summary – A7C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	E-90
E-31 2025 Freeway/Tollway Ramp LOS Summary – A7C-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	E-93
E-32 2025 Freeway/Tollway Ramp LOS Summary – A7C-FECV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	E-96
E-33 2025 Freeway/Tollway Ramp LOS Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	E-99
E-34 2025 Freeway/Tollway Ramp LOS Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)	E-102
E-35 2025 Freeway/Tollway Ramp LOS Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	E-105
E-36 2025 Freeway/Tollway Ramp LOS Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)	E-108

LIST OF TABLES (cont)

Table	Page
E-37 2025 Freeway/Tollway Ramp LOS Summary – AIO Alternative (Buildout Circulation System with Proposed RMV Plan)	E-111
E-38 2025 Freeway/Tollway Ramp LOS Summary – AIO Alternative (Buildout Circulation System with OCP-2000 for RMV).....	E-114
E-39 2025 Freeway/Tollway Ramp LOS Summary – AIP Alternative (Buildout Circulation System with Proposed RMV Plan)	E-117
E-40 2025 Freeway/Tollway Ramp LOS Summary – AIP Alternative (Buildout Circulation System with OCP-2000 for RMV).....	E-120
E-41 2025 Freeway/Tollway Ramp LOS Summary – I-5 Alternative (Committed Circulation System with Proposed RMV Plan)	E-123
E-42 2025 Freeway/Tollway Ramp LOS Summary – I-5 Alternative (Buildout Circulation System with Proposed RMV Plan)	E-126
E-43 2025 Freeway/Tollway Ramp LOS Summary – I-5 Alternative (Buildout Circulation System with OCP-2000 for RMV).....	E-129

Table E-1
EXISTING FREEWAY/TOLLWAY RAMP LOS SUMMARY

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	230	.21	A	210	.19	A
	SB Loop On	1	1,080	610	.56	A	780	.72	C
	NB Direct On	1	1,500	1,560	1.04	F	870	.58	A
	NB Loop On	1	1,500	1,390	.93	E	420	.28	A
	SB Off	2	3,000	1,790	.60	A	2,360	.79	C
	NB Off	1	1,500	300	.20	A	900	.60	A
I-5 at La Paz	SB Direct On	1	1,080	210	.19	A	270	.25	A
	SB Loop On	1	1,080	290	.27	A	500	.46	A
	NB Direct On	1	1,500	630	.42	A	200	.13	A
	NB Loop On	1	1,080	440	.41	A	390	.36	A
	SB Off	1	1,500	690	.46	A	1,270	.85	D
	NB Off	1	1,500	540	.36	A	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	540	.50	A
	SB Loop On	1	1,080	670	.62	B	490	.45	A
	NB Direct On	1	1,500	1,010	.67	B	600	.40	A
	NB Loop On	1	1,500	380	.25	A	500	.33	A
	SB Off	1	1,500	920	.61	B	1,630	1.09	F
	NB Off	1	1,500	660	.44	A	890	.59	A
I-5 at Crown Valley ¹	SB On	1	1,800	710	.39	A	1,120	.62	B
	NB Direct On	1	1,500	720	.48	A	1,100	.73	C
	NB Loop On	1	1,080	790	.73	C	890	.82	D
	SB Off	2	2,250	1,870	.83	D	2,380	1.06	F
	NB Off	1	1,500	1,300	.87	D	710	.47	A
I-5 at Avery	SB On	1	1,080	480	.44	A	590	.55	A
	NB On	1	1,500	750	.50	A	840	.56	A
	SB Off	1	1,500	830	.55	A	1,130	.75	C
	NB Off	1	1,500	850	.57	A	730	.49	A
I-5 at Junipero Serra	SB On	1	1,080	330	.31	A	370	.34	A
	NB On	1	1,080	730	.68	B	680	.63	B
	SB Off	1	1,500	620	.41	A	770	.51	A
	NB Off	1	1,500	250	.17	A	280	.19	A
I-5 at Ortega ¹	SB On	1	1,500	520	.35	A	720	.48	A
	NB On	1	1,500	1,740	1.16	F	1,480	.99	E
	SB Off	2	2,250	1,660	.74	C	1,880	.84	D
	NB Off	1	1,500	960	.64	B	820	.55	A
I-5 at Camino Capistrano	SB On	1	1,500	540	.36	A	630	.42	A
	NB On	1	1,500	540	.36	A	380	.25	A
	SB Off	1	1,500	840	.56	A	1,350	.90	D
	NB Off	1	1,500	590	.39	A	600	.40	A
I-5 at Stonehill	NB On	1	1,500	1,220	.81	D	1,570	1.05	F

Table E-1 (cont) EXISTING FREEWAY/TOLLWAY RAMP LOS SUMMARY									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	850	.94	E	1,130	1.26	F
	SB Loop On	1	900	100	.11	A	70	.08	A
	NB Direct On	1	900	470	.52	A	170	.19	A
	NB Loop On	1	900	640	.71	C	390	.43	A
	SB Off	2	2,250	820	.36	A	1,310	.58	A
	NB Off	2	2,250	80	.04	A	130	.06	A
I-5 at Estrella	SB On	1	1,500	480	.32	A	640	.43	A
	NB Direct On	1	1,500	1,200	.80	C	890	.59	A
	NB Loop On	1	900	500	.56	A	400	.44	A
	SB Off	1	1,500	1,150	.77	C	1,640	1.09	F
	NB Off	1	1,500	470	.31	A	530	.35	A
I-5 at Pico	SB On	1	1,500	460	.31	A	950	.63	B
	NB On	1	1,500	1,580	1.05	F	1,840	1.23	F
	SB Off	1	1,500	1,720	1.15	F	1,700	1.13	F
	NB Off	1	1,500	630	.42	A	820	.55	A
I-5 at El Camino Real	SB On	1	1,500	70	.05	A	200	.13	A
	NB On	1	1,500	530	.35	A	380	.25	A
	SB Off	1	1,500	430	.29	A	850	.57	A
	NB Off	1	1,500	90	.06	A	120	.08	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	200	.13	A	220	.15	A
	SB Off	1	1,500	160	.11	A	180	.12	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	350	.23	A	230	.15	A
	NB On	1	1,500	930	.62	B	280	.19	A
	SB Off	1	1,500	180	.12	A	600	.40	A
	NB Off	1	1,500	360	.24	A	340	.23	A
SR 241 at Santa Margarita	SB On	1	1,500	110	.07	A	60	.04	A
	NB On	1	1,500	2,500	1.67	F	850	.57	A
	SB Off	1	1,500	670	.45	A	1,750	1.17	F
	NB Off	1	1,500	40	.03	A	30	.02	A
SR 241 at Antonio	SB On	1	1,500	40	.03	A	40	.03	A
	NB On (toll)	1	1,500	1,590	1.06	F	220	.15	A
	SB Off (toll)	1	1,500	200	.13	A	740	.49	A
	NB Off	1	1,500	60	.04	A	50	.03	A
SR 241 at Oso	NB On (toll)	1	1,500	610	.41	A	190	.13	A
	SB Off (toll)	1	1,500	170	.11	A	330	.22	A

¹ Congestion Management Program (CMP) freeway interchange location.
Abbreviations: NB – northbound
SB – southbound

Table E-2 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	180	.17	A	200	.19	A
	SB Loop On	1	1,080	720	.67	B	930	.86	D
	NB Direct On	1	1,500	1,460	.97	E	710	.47	A
	NB Loop On	1	1,500	1,670	1.11	F	500	.33	A
	SB Off	2	3,000	1,660	.55	A	2,410	.80	C
	NB Off	1	1,500	250	.17	A	970	.65	B
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	210	.19	A
	SB Loop On	1	1,080	440	.41	A	440	.41	A
	NB Direct On	1	1,500	650	.43	A	210	.14	A
	NB Loop On	1	1,080	550	.51	A	330	.31	A
	SB Off	1	1,500	690	.46	A	1,190	.79	C
	NB Off	1	1,500	1,070	.71	C	720	.48	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	840	.78	C
	SB Loop On	1	1,080	780	.72	C	390	.36	A
	NB Direct On	1	1,500	1,300	.87	D	750	.50	A
	NB Loop On	1	1,500	270	.18	A	680	.45	A
	SB Off	1	1,500	1,140	.76	C	1,720	1.15	F
	NB Off	1	1,500	810	.54	A	1,110	.74	C
I-5 at Crown Valley ¹	SB On	1	1,800	920	.51	A	1,090	.61	B
	NB Direct On	1	1,500	1,390	.93	E	1,630	1.09	F
	NB Loop On	1	1,080	720	.67	B	970	.90	D
	SB Off	2	2,250	1,980	.88	D	3,000	1.33	F
	NB Off	1	1,500	1,350	.90	D	890	.59	A
I-5 at Avery	SB On	1	1,080	660	.61	B	490	.45	A
	NB On	1	1,500	810	.54	A	850	.57	A
	SB Off	1	1,500	670	.45	A	920	.61	B
	NB Off	1	1,500	690	.46	A	810	.54	A
I-5 at Junipero Serra	SB On	1	1,080	380	.35	A	550	.51	A
	NB On	1	1,080	1,200	1.11	F	1,120	1.04	F
	SB Off	1	1,500	830	.55	A	1,150	.77	C
	NB Off	1	1,500	330	.22	A	320	.21	A
I-5 at Ortega ¹	SB On	1	1,500	610	.41	A	630	.42	A
	NB On	1	1,500	2,000	1.33	F	1,750	1.17	F
	SB Off	2	2,250	2,100	.93	E	2,270	1.01	F
	NB Off	1	1,500	920	.61	B	820	.55	A
I-5 at Camino Capistrano	SB On	1	1,500	690	.46	A	610	.41	A
	NB On	1	1,500	860	.57	A	480	.32	A
	SB Off	1	1,500	1,010	.67	B	1,470	.98	E
	NB Off	1	1,500	670	.45	A	780	.52	A
I-5 at Stonehill	NB On	1	1,500	970	.65	B	1,570	1.05	F

Table E-2 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	760	.84	D	1,330	1.48	F
	SB Loop On	1	900	200	.22	A	230	.26	A
	NB Direct On	1	900	280	.31	A	170	.19	A
	NB Loop On	1	900	360	.40	A	250	.28	A
	SB Off	2	2,250	800	.36	A	820	.36	A
	NB Off	2	2,250	220	.10	A	210	.09	A
I-5 at Estrella	SB On	1	1,500	770	.51	A	860	.57	A
	NB Direct On	1	1,500	1,240	.83	D	1,110	.74	C
	NB Loop On	1	900	330	.37	A	360	.40	A
	SB Off	1	1,500	1,360	.91	E	1,550	1.03	F
	NB Off	1	1,500	460	.31	A	820	.55	A
I-5 at Hermosa	SB On	1	1,080	200	.19	A	320	.30	A
	NB Direct On	1	1,500	1,550	1.03	F	1,420	.95	E
	NB Loop On	1	1,080	160	.15	A	240	.22	A
	SB Off	1	1,500	1,450	.97	E	2,010	1.34	F
	NB Off	1	1,500	350	.23	A	160	.11	A
I-5 at Pico	SB On	1	1,500	620	.41	A	1,530	1.02	F
	NB On	1	1,500	1,440	.96	E	1,430	.95	E
	SB Off	2	2,250	1,560	.69	B	1,180	.52	A
	NB Off	1	1,500	920	.61	B	1,210	.81	D
I-5 at El Camino Real	SB On	1	1,500	100	.07	A	220	.15	A
	NB On	1	1,500	570	.38	A	400	.27	A
	SB Off	1	1,500	420	.28	A	880	.59	A
	NB Off	1	1,500	80	.05	A	200	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	130	.09	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	360	.24	A	230	.15	A
	NB On	1	1,500	1,170	.78	C	610	.41	A
	SB Off	1	1,500	570	.38	A	920	.61	B
	NB Off	1	1,500	300	.20	A	330	.22	A
SR 241 at Santa Margarita	SB On	1	1,500	50	.03	A	60	.04	A
	NB On	1	1,500	3,190	2.13	F	1,220	.81	D
	SB Off	1	1,500	920	.61	B	2,160	1.44	F
	NB Off	1	1,500	40	.03	A	20	.01	A
SR 241 at Antonio	SB On	1	1,500	40	.03	A	60	.04	A
	NB On (toll)	1	1,500	2,360	1.57	F	450	.30	A
	SB Off (toll)	1	1,500	410	.27	A	1,450	.97	E
	NB Off	1	1,500	80	.05	A	30	.02	A

Table E-2 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	NB On (toll)	1	1,500	1,700	1.13	F	200	.13	A
	SB Off (toll)	1	1,500	140	.09	A	890	.59	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

Table E-3 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	780	.72	C	820	.76	C
	NB Direct On	1	1,500	1,460	.97	E	730	.49	A
	NB Loop On	1	1,500	1,670	1.11	F	500	.33	A
	SB Off	2	3,000	1,670	.56	A	2,380	.79	C
	NB Off	1	1,500	270	.18	A	980	.65	B
I-5 at La Paz	SB Direct On	1	1,080	120	.11	A	210	.19	A
	SB Loop On	1	1,080	490	.45	A	400	.37	A
	NB Direct On	1	1,500	650	.43	A	200	.13	A
	NB Loop On	1	1,080	460	.43	A	310	.29	A
	SB Off	1	1,500	680	.45	A	1,180	.79	C
	NB Off	1	1,500	970	.65	B	730	.49	A
I-5 at Oso	SB Direct On	1	1,080	410	.38	A	1,080	1.00	E
	SB Loop On	1	1,080	940	.87	D	430	.40	A
	NB Direct On	1	1,500	1,310	.87	D	790	.53	A
	NB Loop On	1	1,500	370	.25	A	680	.45	A
	SB Off	1	1,500	1,180	.79	C	1,890	1.26	F
	NB Off	1	1,500	820	.55	A	1,340	.89	D
I-5 at Crown Valley ¹	SB On	1	1,800	1,350	.75	C	1,270	.71	C
	NB Direct On	1	1,500	1,250	.83	D	1,650	1.10	F
	NB Loop On	1	1,080	750	.69	B	960	.89	D
	SB Off	2	2,250	2,040	.91	E	2,980	1.32	F
	NB Off	1	1,500	1,380	.92	E	1,100	.73	C
I-5 at Avery	SB On	1	1,080	730	.68	B	490	.45	A
	NB On	1	1,500	770	.51	A	820	.55	A
	SB Off	1	1,500	660	.44	A	1,030	.69	B
	NB Off	1	1,500	710	.47	A	810	.54	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	660	.61	B
	NB On	1	1,080	1,610	1.49	F	1,150	1.06	F
	SB Off	1	1,500	890	.59	A	1,560	1.04	F
	NB Off	1	1,500	450	.30	A	340	.23	A
I-5 at Ortega ¹	SB On	1	1,500	1,090	.73	C	830	.55	A
	NB On	1	1,500	2,130	1.42	F	1,860	1.24	F
	SB Off	2	2,250	2,130	.95	E	2,290	1.02	F
	NB Off	1	1,500	900	.60	A	1,030	.69	B
I-5 at Camino Capistrano	SB On	1	1,500	920	.61	B	810	.54	A
	NB On	1	1,500	710	.47	A	460	.31	A
	SB Off	1	1,500	1,020	.68	B	1,500	1.00	E
	NB Off	1	1,500	860	.57	A	1,220	.81	D
I-5 at Stonehill	NB On	1	1,500	950	.63	B	1,520	1.01	F

Table E-3 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	750	.83	D	1,490	1.66	F
	SB Loop On	1	900	170	.19	A	110	.12	A
	NB Direct On	1	900	380	.42	A	190	.21	A
	NB Loop On	1	900	350	.39	A	240	.27	A
	SB Off	2	2,250	860	.38	A	970	.43	A
	NB Off	2	2,250	140	.06	A	230	.10	A
I-5 at Estrella	SB On	1	1,500	710	.47	A	780	.52	A
	NB Direct On	1	1,500	1,320	.88	D	1,360	.91	E
	NB Loop On	1	900	370	.41	A	390	.43	A
	SB Off	1	1,500	1,250	.83	D	1,590	1.06	F
	NB Off	1	1,500	530	.35	A	730	.49	A
I-5 at Hermosa	SB On	1	1,080	170	.16	A	380	.35	A
	NB Direct On	1	1,500	1,500	1.00	E	1,500	1.00	E
	NB Loop On	1	1,080	150	.14	A	230	.21	A
	SB Off	1	1,500	1,800	1.20	F	1,770	1.18	F
	NB Off	1	1,500	410	.27	A	220	.15	A
I-5 at Pico	SB On	1	1,500	530	.35	A	1,290	.86	D
	NB On	1	1,500	1,610	1.07	F	1,940	1.29	F
	SB Off	2	2,250	1,910	.85	D	1,540	.68	B
	NB Off	1	1,500	850	.57	A	1,030	.69	B
I-5 at El Camino Real	SB On	1	1,500	110	.07	A	170	.11	A
	NB On	1	1,500	640	.43	A	410	.27	A
	SB Off	1	1,500	470	.31	A	880	.59	A
	NB Off	1	1,500	90	.06	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	110	.07	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	330	.22	A	240	.16	A
	NB On	1	1,500	1,230	.82	D	670	.45	A
	SB Off	1	1,500	590	.39	A	1,030	.69	B
	NB Off	1	1,500	310	.21	A	270	.18	A
SR 241 at Santa Margarita	SB On	1	1,500	50	.03	A	90	.06	A
	NB On	1	1,500	3,420	2.28	F	1,280	.85	D
	SB Off	1	1,500	920	.61	B	2,380	1.59	F
	NB Off	1	1,500	60	.04	A	20	.01	A
SR 241 at Antonio	SB On	1	1,500	50	.03	A	120	.08	A
	NB On (toll)	1	1,500	2,510	1.67	F	460	.31	A
	SB Off (toll)	1	1,500	360	.24	A	1,660	1.11	F
	NB Off	1	1,500	140	.09	A	40	.03	A

Table E-3 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	NB On (toll)	1	1,500	3,190	2.13	F	470	.31	A
	SB Off (toll)	1	1,500	260	.17	A	1,870	1.25	F

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

Table E-4 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	200	.19	A
	SB Loop On	1	1,080	750	.69	B	910	.84	D
	NB Direct On	1	1,500	1,450	.97	E	760	.51	A
	NB Loop On	1	1,500	1,670	1.11	F	480	.32	A
	SB Off	2	3,000	1,700	.57	A	2,380	.79	C
	NB Off	1	1,500	240	.16	A	950	.63	B
I-5 at La Paz	SB Direct On	1	1,080	160	.15	A	210	.19	A
	SB Loop On	1	1,080	400	.37	A	430	.40	A
	NB Direct On	1	1,500	690	.46	A	230	.15	A
	NB Loop On	1	1,080	570	.53	A	330	.31	A
	SB Off	1	1,500	690	.46	A	1,230	.82	D
	NB Off	1	1,500	1080	.72	C	740	.49	A
I-5 at Oso	SB Direct On	1	1,080	420	.39	A	800	.74	C
	SB Loop On	1	1,080	830	.77	C	450	.42	A
	NB Direct On	1	1,500	1,040	.69	B	680	.45	A
	NB Loop On	1	1,500	330	.22	A	730	.49	A
	SB Off	1	1,500	1,060	.71	C	1,630	1.09	F
	NB Off	1	1,500	710	.47	A	1,210	.81	D
I-5 at Crown Valley ¹	SB On	1	1,800	1,090	.61	B	1,120	.62	B
	NB Direct On	1	1,500	1,380	.92	E	1,490	.99	E
	NB Loop On	1	1,080	720	.67	B	980	.91	E
	SB Off	2	2,250	1,950	.87	D	2,970	1.32	F
	NB Off	1	1,500	1,310	.87	D	910	.61	B
I-5 at Avery	SB On	1	1,080	710	.66	B	490	.45	A
	NB On	1	1,500	770	.51	A	750	.50	A
	SB Off	1	1,500	690	.46	A	950	.63	B
	NB Off	1	1,500	680	.45	A	820	.55	A
I-5 at Junipero Serra	SB On	1	1,080	380	.35	A	580	.54	A
	NB On	1	1,080	1,200	1.11	F	1,060	.98	E
	SB Off	1	1,500	830	.55	A	1,180	.79	C
	NB Off	1	1,500	370	.25	A	310	.21	A
I-5 at Ortega ¹	SB On	1	1,500	820	.55	A	750	.50	A
	NB On	1	1,500	1,920	1.28	F	1,740	1.16	F
	SB Off	2	2,250	2,000	.89	D	1,980	.88	D
	NB Off	1	1,500	970	.65	B	950	.63	B
I-5 at Camino Capistrano	SB On	1	1,500	800	.53	A	650	.43	A
	NB On	1	1,500	830	.55	A	460	.31	A
	SB Off	1	1,500	1,010	.67	B	1,470	.98	E
	NB Off	1	1,500	730	.49	A	850	.57	A
I-5 at Stonehill	NB On	1	1,500	950	.63	B	1,540	1.03	F

Table E-4 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	740	.82	D	1,300	1.44	F
	SB Loop On	1	900	280	.31	A	360	.40	A
	NB Direct On	1	900	290	.32	A	160	.18	A
	NB Loop On	1	900	380	.42	A	250	.28	A
	SB Off	2	2,250	820	.36	A	870	.39	A
	NB Off	2	2,250	230	.10	A	300	.13	A
I-5 at Estrella	SB On	1	1,500	780	.52	A	800	.53	A
	NB Direct On	1	1,500	1,270	.85	D	1,200	.80	C
	NB Loop On	1	900	330	.37	A	350	.39	A
	SB Off	1	1,500	1,440	.96	E	1,480	.99	E
	NB Off	1	1,500	480	.32	A	820	.55	A
I-5 at Hermosa	SB On	1	1,080	110	.10	A	180	.17	A
	NB Direct On	1	1,500	1,520	1.01	F	1,550	1.03	F
	NB Loop On	1	1,080	160	.15	A	280	.26	A
	SB Off	1	1,500	1,600	1.07	F	1,930	1.29	F
	NB Off	1	1,500	230	.15	A	100	.07	A
I-5 at Pico	SB On	1	1,500	580	.39	A	1,510	1.01	F
	NB On	1	1,500	1,330	.89	D	1,480	.99	E
	SB Off	2	2,250	1,640	.73	C	1,280	.57	A
	NB Off	1	1,500	870	.58	A	1,000	.67	B
I-5 at El Camino Real	SB On	1	1,500	90	.06	A	180	.12	A
	NB On	1	1,500	570	.38	A	360	.24	A
	SB Off	1	1,500	390	.26	A	830	.55	A
	NB Off	1	1,500	80	.05	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	120	.08	A	220	.15	A
	SB Off	1	1,500	160	.11	A	110	.07	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	350	.23	A	230	.15	A
	NB On	1	1,500	1,070	.71	C	580	.39	A
	SB Off	1	1,500	560	.37	A	930	.62	B
	NB Off	1	1,500	280	.19	A	300	.20	A
SR 241 at Santa Margarita	SB On	1	1,500	50	.03	A	50	.03	A
	NB On	1	1,500	3,180	2.12	F	1,210	.81	D
	SB Off	1	1,500	920	.61	B	2,150	1.43	F
	NB Off	1	1,500	30	.02	A	30	.02	A
SR 241 at Antonio	SB On	1	1,500	40	.03	A	50	.03	A
	NB On (toll)	1	1,500	2,440	1.63	F	400	.27	A
	SB Off (toll)	1	1,500	310	.21	A	1,440	.96	E
	NB Off	1	1,500	70	.05	A	30	.02	A

Table E-4 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	NB On (toll)	1	1,500	1,570	1.05	F	280	.19	A
	SB Off (toll)	1	1,500	180	.12	A	990	.66	B

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

Table E-5 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH NO FUTURE DEVELOPMENT IN RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	200	.19	A
	SB Loop On	1	1,080	740	.69	B	890	.82	D
	NB Direct On	1	1,500	1,430	.95	E	770	.51	A
	NB Loop On	1	1,500	1,660	1.11	F	480	.32	A
	SB Off	2	3,000	1,690	.56	A	2,440	.81	D
	NB Off	1	1,500	220	.15	A	920	.61	B
I-5 at La Paz	SB Direct On	1	1,080	160	.15	A	210	.19	A
	SB Loop On	1	1,080	390	.36	A	440	.41	A
	NB Direct On	1	1,500	680	.45	A	220	.15	A
	NB Loop On	1	1,080	510	.47	A	340	.31	A
	SB Off	1	1,500	680	.45	A	1,130	.75	C
	NB Off	1	1,500	1,160	.77	C	730	.49	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	700	.65	B
	SB Loop On	1	1,080	790	.73	C	420	.39	A
	NB Direct On	1	1,500	920	.61	B	610	.41	A
	NB Loop On	1	1,500	360	.24	A	740	.49	A
	SB Off	1	1,500	1,050	.70	B	1,570	1.05	F
	NB Off	1	1,500	680	.45	A	1,150	.77	C
I-5 at Crown Valley ¹	SB On	1	1,800	970	.54	A	1,070	.59	A
	NB Direct On	1	1,500	1,420	.95	E	1,470	.98	E
	NB Loop On	1	1,080	710	.66	B	990	.92	E
	SB Off	2	2,250	1,910	.85	D	2,950	1.31	F
	NB Off	1	1,500	1,310	.87	D	830	.55	A
I-5 at Avery	SB On	1	1,080	590	.55	A	510	.47	A
	NB On	1	1,500	770	.51	A	780	.52	A
	SB Off	1	1,500	670	.45	A	930	.62	B
	NB Off	1	1,500	690	.46	A	780	.52	A
I-5 at Junipero Serra	SB On	1	1,080	380	.35	A	600	.56	A
	NB On	1	1,080	1,150	1.06	F	1,050	.97	E
	SB Off	1	1,500	830	.55	A	1,080	.72	C
	NB Off	1	1,500	350	.23	A	320	.21	A
I-5 at Ortega ¹	SB On	1	1,500	810	.54	A	720	.48	A
	NB On	1	1,500	1,770	1.18	F	1,640	1.09	F
	SB Off	2	2,250	1,940	.86	D	1,850	.82	D
	NB Off	1	1,500	1,080	.72	C	950	.63	B
I-5 at Camino Capistrano	SB On	1	1,500	770	.51	A	630	.42	A
	NB On	1	1,500	820	.55	A	470	.31	A
	SB Off	1	1,500	1,000	.67	B	1,490	.99	E
	NB Off	1	1,500	630	.42	A	920	.61	B
I-5 at Stonehill	NB On	1	1,500	930	.62	B	1,570	1.05	F

Table E-5 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH NO FUTURE DEVELOPMENT IN RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	740	.82	D	1,330	1.48	F
	SB Loop On	1	900	290	.32	A	410	.46	A
	NB Direct On	1	900	300	.33	A	160	.18	A
	NB Loop On	1	900	380	.42	A	260	.29	A
	SB Off	2	2,250	780	.35	A	840	.37	A
	NB Off	2	2,250	270	.12	A	250	.11	A
I-5 at Estrella	SB On	1	1,500	780	.52	A	800	.53	A
	NB Direct On	1	1,500	1,250	.83	D	1,180	.79	C
	NB Loop On	1	900	340	.38	A	350	.39	A
	SB Off	1	1,500	1,500	1.00	E	1,490	.99	E
	NB Off	1	1,500	480	.32	A	830	.55	A
I-5 at Hermosa	SB On	1	1,080	60	.06	A	140	.13	A
	NB Direct On	1	1,500	1,500	1.00	E	1,560	1.04	F
	NB Loop On	1	1,080	150	.14	A	270	.25	A
	SB Off	1	1,500	1,590	1.06	F	1,900	1.27	F
	NB Off	1	1,500	200	.13	A	110	.07	A
I-5 at Pico	SB On	1	1,500	510	.34	A	1,220	.81	D
	NB On	1	1,500	1,370	.91	E	1,810	1.21	F
	SB Off	2	2,250	1,750	.78	C	1,390	.62	B
	NB Off	1	1,500	860	.57	A	870	.58	A
I-5 at El Camino Real	SB On	1	1,500	90	.06	A	160	.11	A
	NB On	1	1,500	580	.39	A	370	.25	A
	SB Off	1	1,500	410	.27	A	810	.54	A
	NB Off	1	1,500	70	.05	A	200	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	120	.08	A	220	.15	A
	SB Off	1	1,500	160	.11	A	110	.07	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	350	.23	A	220	.15	A
	NB On	1	1,500	1,020	.68	B	580	.39	A
	SB Off	1	1,500	560	.37	A	830	.55	A
	NB Off	1	1,500	290	.19	A	330	.22	A
SR 241 at Santa Margarita	SB On	1	1,500	50	.03	A	40	.03	A
	NB On	1	1,500	3,190	2.13	F	1,210	.81	D
	SB Off	1	1,500	920	.61	B	2,160	1.44	F
	NB Off	1	1,500	30	.02	A	30	.02	A
SR 241 at Antonio	SB On	1	1,500	70	.05	A	70	.05	A
	NB On (toll)	1	1,500	2,260	1.51	F	390	.26	A
	SB Off (toll)	1	1,500	330	.22	A	1,370	.91	E
	NB Off	1	1,500	60	.04	A	60	.04	A

Table E-5 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH NO FUTURE DEVELOPMENT IN RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	NB On (toll)	1	1,500	1,090	.73	C	280	.19	A
	SB Off (toll)	1	1,500	200	.13	A	660	.44	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

Table E-6 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	200	.19	A
	SB Loop On	1	1,080	690	.64	B	900	.83	D
	NB Direct On	1	1,500	1,460	.97	E	710	.47	A
	NB Loop On	1	1,500	1,620	1.08	F	510	.34	A
	SB Off	2	3,000	1,650	.55	A	2,420	.81	D
	NB Off	1	1,500	200	.13	A	930	.62	B
I-5 at La Paz	SB Direct On	1	1,080	130	.12	A	220	.20	A
	SB Loop On	1	1,080	420	.39	A	430	.40	A
	NB Direct On	1	1,500	650	.43	A	40	.03	A
	NB Loop On	1	1,080	500	.46	A	320	.30	A
	SB Off	1	1,500	690	.46	A	1,120	.75	C
	NB Off	1	1,500	1,190	.79	C	680	.45	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	810	.75	C
	SB Loop On	1	1,080	710	.66	B	390	.36	A
	NB Direct On	1	1,500	1,290	.86	D	750	.50	A
	NB Loop On	1	1,500	260	.17	A	640	.43	A
	SB Off	1	1,500	1,110	.74	C	1,670	1.11	F
	NB Off	1	1,500	820	.55	A	1,000	.67	B
I-5 at Crown Valley ¹	SB On	1	1,800	760	.42	A	1,050	.58	A
	NB Direct On	1	1,500	1,470	.98	E	1,580	1.05	F
	NB Loop On	1	1,080	720	.67	B	890	.82	D
	SB Off	2	2,250	1,930	.86	D	3,030	1.35	F
	NB Off	1	1,500	1,300	.87	D	670	.45	A
I-5 at Avery	SB On	1	1,080	480	.44	A	430	.40	A
	NB On	1	1,500	930	.62	B	820	.55	A
	SB Off	1	1,500	690	.46	A	1,160	.77	C
	NB Off	1	1,500	630	.42	A	730	.49	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	580	.54	A
	NB On	1	1,080	1,370	1.27	F	990	.92	E
	SB Off	1	1,500	790	.53	A	1,260	.84	D
	NB Off	1	1,500	390	.26	A	480	.32	A
I-5 at Ortega ¹	SB On	1	1,500	400	.27	A	480	.32	A
	NB On	1	1,500	2,170	1.45	F	1,890	1.26	F
	SB Off	2	2,250	2,060	.92	E	2,390	1.06	F
	NB Off	1	1,500	790	.53	A	700	.47	A
I-5 at Camino Capistrano	SB On	1	1,500	640	.43	A	520	.35	A
	NB On	1	1,500	950	.63	B	480	.32	A
	SB Off	1	1,500	970	.65	B	1,480	.99	E
	NB Off	1	1,500	560	.37	A	720	.48	A
I-5 at Stonehill	NB On	1	1,500	980	.65	B	1,570	1.05	F

Table E-6 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,010	1.12	F	1,270	1.41	F
	SB Loop On	1	900	160	.18	A	140	.16	A
	NB Direct On	1	900	280	.31	A	150	.17	A
	NB Loop On	1	900	320	.36	A	220	.24	A
	SB Off	2	2,250	750	.33	A	810	.36	A
	NB Off	2	2,250	100	.04	A	200	.09	A
I-5 at Estrella	SB On	1	1,500	710	.47	A	690	.46	A
	NB Direct On	1	1,500	910	.61	B	820	.55	A
	NB Loop On	1	900	360	.40	A	350	.39	A
	SB Off	1	1,500	1,130	.75	C	1,300	.87	D
	NB Off	1	1,500	480	.32	A	780	.52	A
I-5 at Hermosa	SB On	1	1,080	380	.35	A	950	.88	D
	NB Direct On	1	1,500	1,150	.77	C	830	.55	A
	NB Loop On	1	1,080	140	.13	A	210	.19	A
	SB Off	1	1,500	1,200	.80	C	1,250	.83	D
	NB Off	1	1,500	660	.44	A	460	.31	A
I-5 at Pico	SB On	1	1,500	860	.57	A	1,330	.89	D
	NB On	1	1,500	1,320	.88	D	1,600	1.07	F
	SB Off	2	2,250	1,440	.64	B	1,090	.48	A
	NB Off	1	1,500	910	.61	B	1,250	.83	D
I-5 at El Camino Real	SB On	1	1,500	80	.05	A	140	.09	A
	NB On	1	1,500	610	.41	A	390	.26	A
	SB Off	1	1,500	470	.31	A	870	.58	A
	NB Off	1	1,500	100	.07	A	200	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	120	.08	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	180	.12	A
	NB On	1	1,500	1,120	.75	C	630	.42	A
	SB Off	1	1,500	580	.39	A	990	.66	B
	NB Off	1	1,500	270	.18	A	190	.13	A
SR 241 at Santa Margarita	SB On	1	1,500	50	.03	A	60	.04	A
	NB On	1	1,500	3,200	2.13	F	1,230	.82	D
	SB Off	1	1,500	930	.62	B	2,180	1.45	F
	NB Off	1	1,500	40	.03	A	20	.01	A
SR 241 at Antonio	SB On	1	1,500	40	.03	A	70	.05	A
	NB On (toll)	1	1,500	2,380	1.59	F	460	.31	A
	SB Off (toll)	1	1,500	440	.29	A	1,490	.99	E
	NB Off	1	1,500	80	.05	A	30	.02	A

Table E-6 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	NB On (toll)	1	1,500	1,670	1.11	F	210	.14	A
	SB Off (toll)	1	1,500	150	.10	A	920	.61	B

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

Table E-7 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	200	.19	A
	SB Loop On	1	1,080	690	.64	B	740	.69	B
	NB Direct On	1	1,500	1,580	1.05	F	710	.47	A
	NB Loop On	1	1,500	1,670	1.11	F	490	.33	A
	SB Off	2	3,000	1,630	.54	A	2,470	.82	D
	NB Off	1	1,500	240	.16	A	920	.61	B
I-5 at La Paz	SB Direct On	1	1,080	120	.11	A	260	.24	A
	SB Loop On	1	1,080	400	.37	A	400	.37	A
	NB Direct On	1	1,500	600	.40	A	200	.13	A
	NB Loop On	1	1,080	380	.35	A	300	.28	A
	SB Off	1	1,500	670	.45	A	1,140	.76	C
	NB Off	1	1,500	1,070	.71	C	690	.46	A
I-5 at Oso	SB Direct On	1	1,080	420	.39	A	810	.75	C
	SB Loop On	1	1,080	700	.65	B	380	.35	A
	NB Direct On	1	1,500	1,490	.99	E	700	.47	A
	NB Loop On	1	1,500	400	.27	A	650	.43	A
	SB Off	1	1,500	1,010	.67	B	1,420	.95	E
	NB Off	1	1,500	1,080	.72	C	1,050	.70	B
I-5 at Crown Valley ¹	SB On	1	1,800	750	.42	A	1,150	.64	B
	NB Direct On	1	1,500	1,540	1.03	F	1,790	1.19	F
	NB Loop On	1	1,080	730	.68	B	930	.86	D
	SB Off	2	2,250	1,990	.88	D	3,470	1.54	F
	NB Off	1	1,500	1,270	.85	D	710	.47	A
I-5 at Avery	SB On	1	1,080	480	.44	A	440	.41	A
	NB On	1	1,500	1,060	.71	C	770	.51	A
	SB Off	1	1,500	710	.47	A	1,240	.83	D
	NB Off	1	1,500	650	.43	A	810	.54	A
I-5 at Junipero Serra	SB On	1	1,080	570	.53	A	610	.56	A
	NB On	1	1,080	1,650	1.53	F	1,150	1.06	F
	SB Off	1	1,500	810	.54	A	1,460	.97	E
	NB Off	1	1,500	420	.28	A	440	.29	A
I-5 at Ortega ¹	SB On	1	1,500	500	.33	A	530	.35	A
	NB On	1	1,500	2,150	1.43	F	1,950	1.30	F
	SB Off	2	2,250	2,100	.93	E	2,510	1.12	F
	NB Off	1	1,500	750	.50	A	790	.53	A
I-5 at Camino Capistrano	SB On	1	1,500	730	.49	A	570	.38	A
	NB On	1	1,500	850	.57	A	470	.31	A
	SB Off	1	1,500	960	.64	B	1,490	.99	E
	NB Off	1	1,500	530	.35	A	760	.51	A
I-5 at Stonehill	NB On	1	1,500	950	.63	B	1,590	1.06	F

Table E-7 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,030	1.14	F	1,260	1.40	F
	SB Loop On	1	900	170	.19	A	90	.10	A
	NB Direct On	1	900	390	.43	A	180	.20	A
	NB Loop On	1	900	310	.34	A	240	.27	A
	SB Off	2	2,250	770	.34	A	1,030	.46	A
	NB Off	2	2,250	110	.05	A	190	.08	A
I-5 at Estrella	SB On	1	1,500	690	.46	A	650	.43	A
	NB Direct On	1	1,500	1,020	.68	B	860	.57	A
	NB Loop On	1	900	380	.42	A	390	.43	A
	SB Off	1	1,500	1,210	.81	D	1,290	.86	D
	NB Off	1	1,500	490	.33	A	740	.49	A
I-5 at Hermosa	SB On	1	1,080	380	.35	A	910	.84	D
	NB Direct On	1	1,500	1,140	.76	C	1,090	.73	C
	NB Loop On	1	1,080	140	.13	A	210	.19	A
	SB Off	1	1,500	1,320	.88	D	1,240	.83	D
	NB Off	1	1,500	730	.49	A	510	.34	A
I-5 at Pico	SB On	1	1,500	720	.48	A	1,390	.93	E
	NB On	1	1,500	1,260	.84	D	1,520	1.01	F
	SB Off	2	2,250	1,510	.67	B	1,170	.52	A
	NB Off	1	1,500	930	.62	B	1,140	.76	C
I-5 at El Camino Real	SB On	1	1,500	110	.07	A	180	.12	A
	NB On	1	1,500	620	.41	A	410	.27	A
	SB Off	1	1,500	460	.31	A	860	.57	A
	NB Off	1	1,500	90	.06	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	110	.07	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	250	.17	A	190	.13	A
	NB On	1	1,500	1,220	.81	D	690	.46	A
	SB Off	1	1,500	600	.40	A	1,070	.71	C
	NB Off	1	1,500	260	.17	A	190	.13	A
SR 241 at Santa Margarita	SB On	1	1,500	40	.03	A	50	.03	A
	NB On	1	1,500	3,340	2.23	F	1,270	.85	D
	SB Off	1	1,500	920	.61	B	2,290	1.53	F
	NB Off	1	1,500	30	.02	A	30	.02	A
SR 241 at Antonio	SB On	1	1,500	60	.04	A	60	.04	A
	NB On (toll)	1	1,500	2,490	1.66	F	440	.29	A
	SB Off (toll)	1	1,500	370	.25	A	1,560	1.04	F
	NB Off	1	1,500	70	.05	A	60	.04	A

Table E-7 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	NB On (toll)	1	1,500	2,860	1.91	F	510	.34	A
	SB Off (toll)	1	1,500	270	.18	A	1,950	1.30	F

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

Table E-8 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	690	.64	B	840	.78	C
	NB Direct On	1	1,500	1,490	.99	E	740	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	520	.35	A
	SB Off	2	3,000	1,670	.56	A	2,490	.83	D
	NB Off	1	1,500	220	.15	A	930	.62	B
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	230	.21	A
	SB Loop On	1	1,080	370	.34	A	430	.40	A
	NB Direct On	1	1,500	680	.45	A	250	.17	A
	NB Loop On	1	1,080	410	.38	A	340	.31	A
	SB Off	1	1,500	700	.47	A	1,190	.79	C
	NB Off	1	1,500	1,110	.74	C	660	.44	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	810	.75	C
	SB Loop On	1	1,080	700	.65	B	360	.33	A
	NB Direct On	1	1,500	1,280	.85	D	750	.50	A
	NB Loop On	1	1,500	380	.25	A	600	.40	A
	SB Off	1	1,500	1,110	.74	C	1,660	1.11	F
	NB Off	1	1,500	810	.54	A	1,110	.74	C
I-5 at Crown Valley ¹	SB On	1	1,800	880	.49	A	1,050	.58	A
	NB Direct On	1	1,500	1,490	.99	E	1,630	1.09	F
	NB Loop On	1	1,080	720	.67	B	980	.91	E
	SB Off	2	2,250	2,030	.90	D	3,040	1.35	F
	NB Off	1	1,500	1,320	.88	D	860	.57	A
I-5 at Avery	SB On	1	1,080	620	.57	A	550	.51	A
	NB On	1	1,500	730	.49	A	840	.56	A
	SB Off	1	1,500	680	.45	A	960	.64	B
	NB Off	1	1,500	760	.51	A	850	.57	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	560	.52	A
	NB On	1	1,080	1,190	1.10	F	960	.89	D
	SB Off	1	1,500	830	.55	A	1,040	.69	B
	NB Off	1	1,500	390	.26	A	340	.23	A
I-5 at Ortega ¹	SB On	1	1,500	510	.34	A	590	.39	A
	NB On (a)	1	1,500	2,100	1.40	F	1,990	1.33	F
	SB Off (a)	2	2,250	2,170	.96	E	2,390	1.06	F
	NB Off	1	1,500	860	.57	A	790	.53	A
I-5 at Camino Capistrano	SB On	1	1,500	670	.45	A	610	.41	A
	NB On	1	1,500	840	.56	A	480	.32	A
	SB Off (a)	1	1,500	1,030	.69	B	1,560	1.04	F
	NB Off	1	1,500	610	.41	A	830	.55	A
I-5 at Stonehill	NB On (a)	1	1,500	1,010	.67	B	1,750	1.17	F

Table E-8 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	890	.99	E	1,310	1.46	F
	SB Loop On	1	900	210	.23	A	160	.18	A
	NB Direct On	1	900	340	.38	A	210	.23	A
	NB Loop On	1	900	380	.42	A	310	.34	A
	SB Off	2	2,250	860	.38	A	980	.44	A
	NB Off	2	2,250	190	.08	A	250	.11	A
I-5 at Estrella	SB On	1	1,500	770	.51	A	800	.53	A
	NB Direct On	1	1,500	1,140	.76	C	960	.64	B
	NB Loop On	1	900	390	.43	A	380	.42	A
	SB Off	1	1,500	1,100	.73	C	1,420	.95	E
	NB Off	1	1,500	510	.34	A	860	.57	A
I-5 at Hermosa	SB On	1	1,080	190	.18	A	370	.34	A
	NB Direct On	1	1,500	1,470	.98	E	1,130	.75	C
	NB Loop On	1	1,080	150	.14	A	200	.19	A
	SB Off	1	1,500	1,490	.99	E	1,630	1.09	F
	NB Off	1	1,500	180	.12	A	230	.15	A
I-5 at Pico	SB On	1	1,500	450	.30	A	1,130	.75	C
	NB On (a)	1	1,500	1,390	.93	E	1,680	1.12	F
	SB Off	2	2,250	1,690	.75	C	1,350	.60	A
	NB Off	1	1,500	730	.49	A	850	.57	A
I-5 at El Camino Real	SB On	1	1,500	140	.09	A	220	.15	A
	NB On	1	1,500	550	.37	A	380	.25	A
	SB Off	1	1,500	450	.30	A	770	.51	A
	NB Off	1	1,500	110	.07	A	290	.19	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	410	.27	A	550	.37	A
	SB Off	1	1,500	230	.15	A	260	.17	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	380	.25	A	270	.18	A
	NB On	1	1,500	1,070	.71	C	610	.41	A
	SB Off	1	1,500	570	.38	A	910	.61	B
	NB Off	1	1,500	330	.22	A	360	.24	A
SR 241 at Santa Margarita	SB On	1	1,500	200	.13	A	140	.09	A
	NB On	1	1,500	3,140	2.09	F	1,170	.78	C
	SB Off	1	1,500	910	.61	B	2,080	1.39	F
	NB Off	1	1,500	90	.06	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	200	.13	A	270	.18	A
	NB On (toll)	1	1,500	2,160	1.44	F	410	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,300	.87	D
	NB Off	1	1,500	270	.18	A	170	.11	A

Table E-8 (cont)
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-INITIAL AND ULTIMATE
ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	540	.36	A	810	.54	A
	NB On (toll)	1	1,500	840	.56	A	110	.07	A
	SB Off (toll)	1	1,500	90	.06	A	540	.36	A
	NB Off	1	1,500	710	.47	A	640	.43	A
SR 241 at C Street	SB On (toll)	1	1,500	50	.03	A	50	.03	A
	NB On	1	1,500	1,220	.81	D	620	.41	A
	SB Off	1	1,500	480	.32	A	1,160	.77	C
	NB Off (toll)	1	1,500	50	.03	A	70	.05	A
SR 241 at North River	SB On (toll)	1	1,500	760	.51	A	540	.36	A
	NB Direct On	1	1,500	480	.32	A	210	.14	A
	NB Loop On	1	1,500	280	.19	A	50	.03	A
	SB Off	1	1,500	130	.09	A	770	.51	A
	NB Off (toll)	1	1,500	410	.27	A	670	.45	A
SR 241 at Pico	SB On (toll)	1	1,500	180	.12	A	290	.19	A
	NB On	1	1,500	840	.56	A	940	.63	B
	SB Off	1	1,500	1,010	.67	B	900	.60	A
	NB Off (toll)	1	1,500	110	.07	A	160	.11	A
SR 241 at Cristianitos	NB On	1	1,500	210	.14	A	260	.17	A
	SB Off	1	1,500	290	.19	A	430	.29	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Table E-9 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	670	.62	B	840	.78	C
	NB Direct On	1	1,500	1,470	.98	E	740	.49	A
	NB Loop On	1	1,500	1,610	1.07	F	500	.33	A
	SB Off	2	3,000	1,650	.55	A	2,480	.83	D
	NB Off	1	1,500	200	.13	A	910	.61	B
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	220	.20	A
	SB Loop On	1	1,080	370	.34	A	430	.40	A
	NB Direct On	1	1,500	640	.43	A	240	.16	A
	NB Loop On	1	1,080	440	.41	A	340	.31	A
	SB Off	1	1,500	680	.45	A	1,120	.75	C
	NB Off	1	1,500	1,100	.73	C	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	800	.74	C
	SB Loop On	1	1,080	670	.62	B	360	.33	A
	NB Direct On	1	1,500	1,270	.85	D	730	.49	A
	NB Loop On	1	1,500	260	.17	A	640	.43	A
	SB Off	1	1,500	1,070	.71	C	1,570	1.05	F
	NB Off	1	1,500	780	.52	A	1,030	.69	B
I-5 at Crown Valley ¹	SB On	1	1,800	740	.41	A	1,030	.57	A
	NB Direct On	1	1,500	1,500	1.00	E	1,600	1.07	F
	NB Loop On	1	1,080	720	.67	B	900	.83	D
	SB Off	2	2,250	1,970	.88	D	3,050	1.36	F
	NB Off	1	1,500	1,280	.85	D	680	.45	A
I-5 at Avery	SB On	1	1,080	480	.44	A	470	.44	A
	NB On	1	1,500	910	.61	B	810	.54	A
	SB Off	1	1,500	700	.47	A	1,180	.79	C
	NB Off	1	1,500	710	.47	A	760	.51	A
I-5 at Junipero Serra	SB On	1	1,080	600	.56	A	620	.57	A
	NB On	1	1,080	1,370	1.27	F	910	.84	D
	SB Off	1	1,500	790	.53	A	1,120	.75	C
	NB Off	1	1,500	430	.29	A	520	.35	A
I-5 at Ortega ¹	SB On	1	1,500	380	.25	A	460	.31	A
	NB On (a)	1	1,500	2,150	1.43	F	2,000	1.33	F
	SB Off	2	2,250	2,120	.94	E	2,460	1.09	F
	NB Off	1	1,500	750	.50	A	680	.45	A
I-5 at Camino Capistrano	SB On	1	1,500	620	.41	A	530	.35	A
	NB On	1	1,500	860	.57	A	480	.32	A
	SB Off (a)	1	1,500	980	.65	B	1,620	1.08	F
	NB Off	1	1,500	530	.35	A	730	.49	A
I-5 at Stonehill	NB On (a)	1	1,500	1,010	.67	B	1,670	1.11	F

Table E-9 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,010	1.12	F	1,270	1.41	F
	SB Loop On	1	900	160	.18	A	100	.11	A
	NB Direct On	1	900	350	.39	A	170	.19	A
	NB Loop On	1	900	340	.38	A	260	.29	A
	SB Off	2	2,250	760	.34	A	930	.41	A
	NB Off	2	2,250	150	.07	A	250	.11	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	800	.53	A
	NB Direct On	1	1,500	930	.62	B	790	.53	A
	NB Loop On	1	900	350	.39	A	360	.40	A
	SB Off	1	1,500	1,020	.68	B	1,160	.77	C
	NB Off	1	1,500	520	.35	A	850	.57	A
I-5 at Hermosa	SB On	1	1,080	170	.16	A	360	.33	A
	NB Direct On	1	1,500	1,300	.87	D	960	.64	B
	NB Loop On	1	1,080	160	.15	A	230	.21	A
	SB Off	1	1,500	1,280	.85	D	1,390	.93	E
	NB Off	1	1,500	280	.19	A	260	.17	A
I-5 at Pico	SB On	1	1,500	410	.27	A	1,020	.68	B
	NB On (a)	1	1,500	1,270	.85	D	1,660	1.11	F
	SB Off	2	2,250	1,520	.68	B	1,150	.51	A
	NB Off	1	1,500	780	.52	A	860	.57	A
I-5 at El Camino Real	SB On	1	1,500	140	.09	A	200	.13	A
	NB On	1	1,500	540	.36	A	360	.24	A
	SB Off	1	1,500	360	.24	A	640	.43	A
	NB Off	1	1,500	140	.09	A	330	.22	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	380	.25	A	530	.35	A
	SB Off	1	1,500	210	.14	A	220	.15	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basillone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	200	.13	A
	NB On	1	1,500	1,110	.74	C	620	.41	A
	SB Off	1	1,500	580	.39	A	880	.59	A
	NB Off	1	1,500	290	.19	A	210	.14	A
SR 241 at Santa Margarita	SB On	1	1,500	150	.10	A	130	.09	A
	NB On	1	1,500	3,150	2.10	F	1,190	.79	C
	SB Off	1	1,500	910	.61	B	2,120	1.41	F
	NB Off	1	1,500	90	.06	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	170	.11	A	240	.16	A
	NB On (toll)	1	1,500	2,180	1.45	F	410	.27	A
	SB Off (toll)	1	1,500	340	.23	A	1,280	.85	D
	NB Off	1	1,500	230	.15	A	150	.10	A

Table E-9 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	500	.33	A	740	.49	A
	NB On (toll)	1	1,500	890	.59	A	110	.07	A
	SB Off (toll)	1	1,500	100	.07	A	560	.37	A
	NB Off	1	1,500	670	.45	A	590	.39	A
SR 241 at C Street	SB On (toll)	1	1,500	50	.03	A	50	.03	A
	NB On	1	1,500	1,210	.81	D	660	.44	A
	SB Off	1	1,500	520	.35	A	1,130	.75	C
	NB Off (toll)	1	1,500	40	.03	A	60	.04	A
SR 241 at North River	SB On (toll)	1	1,500	520	.35	A	380	.25	A
	NB Direct On	1	1,500	470	.31	A	210	.14	A
	NB Loop On	1	1,500	270	.18	A	50	.03	A
	SB Off	1	1,500	140	.09	A	740	.49	A
	NB Off (toll)	1	1,500	320	.21	A	440	.29	A
SR 241 at Pico	SB On (toll)	1	1,500	180	.12	A	330	.22	A
	NB On	1	1,500	570	.38	A	600	.40	A
	SB Off	1	1,500	620	.41	A	550	.37	A
	NB Off (toll)	1	1,500	110	.07	A	170	.11	A
SR 241 at Cristianitos	NB On	1	1,500	160	.11	A	210	.14	A
	SB Off	1	1,500	240	.16	A	400	.27	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Table E-10
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-INITIAL AND ULTIMATE
ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	200	.19	A	210	.19	A
	SB Loop On	1	1,080	670	.62	B	700	.65	B
	NB Direct On	1	1,500	1,540	1.03	F	750	.50	A
	NB Loop On	1	1,500	1,590	1.06	F	480	.32	A
	SB Off	2	3,000	1,630	.54	A	2,490	.83	D
	NB Off	1	1,500	200	.13	A	870	.58	A
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	250	.23	A
	SB Loop On	1	1,080	330	.31	A	400	.37	A
	NB Direct On	1	1,500	680	.45	A	200	.13	A
	NB Loop On	1	1,080	380	.35	A	320	.30	A
	SB Off	1	1,500	680	.45	A	1,110	.74	C
	NB Off	1	1,500	980	.65	B	660	.44	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	800	.74	C
	SB Loop On	1	1,080	640	.59	A	330	.31	A
	NB Direct On	1	1,500	1,490	.99	E	760	.51	A
	NB Loop On	1	1,500	260	.17	A	620	.41	A
	SB Off	1	1,500	1,090	.73	C	1,500	1.00	E
	NB Off	1	1,500	910	.61	B	1,010	.67	B
I-5 at Crown Valley ¹	SB On	1	1,800	730	.41	A	1,080	.60	A
	NB Direct On	1	1,500	1,500	1.00	E	1,800	1.20	F
	NB Loop On	1	1,080	730	.68	B	940	.87	D
	SB Off	2	2,250	1,980	.88	D	3,470	1.54	F
	NB Off	1	1,500	1,240	.83	D	620	.41	A
I-5 at Avery	SB On	1	1,080	470	.44	A	470	.44	A
	NB On	1	1,500	940	.63	B	810	.54	A
	SB Off	1	1,500	720	.48	A	1,130	.75	C
	NB Off	1	1,500	680	.45	A	810	.54	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	630	.58	A
	NB On	1	1,080	1,440	1.33	F	910	.84	D
	SB Off	1	1,500	800	.53	A	1,210	.81	D
	NB Off	1	1,500	440	.29	A	490	.33	A
I-5 at Ortega ¹	SB On	1	1,500	410	.27	A	470	.31	A
	NB On	1	1,500	2,100	1.40	F	1,970	1.31	F
	SB Off	2	2,250	2,000	.89	D	2,520	1.12	F
	NB Off	1	1,500	740	.49	A	730	.49	A
I-5 at Camino Capistrano	SB On	1	1,500	660	.44	A	570	.38	A
	NB On	1	1,500	940	.63	B	510	.34	A
	SB Off (a)	1	1,500	980	.65	B	1,610	1.07	F
	NB Off	1	1,500	560	.37	A	750	.50	A
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,690	1.13	F

Table E-10 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,020	1.13	F	1,260	1.40	F
	SB Loop On	1	900	170	.19	A	100	.11	A
	NB Direct On	1	900	420	.47	A	170	.19	A
	NB Loop On	1	900	340	.38	A	250	.28	A
	SB Off	2	2,250	760	.34	A	1,010	.45	A
	NB Off	2	2,250	130	.06	A	250	.11	A
I-5 at Estrella	SB On	1	1,500	750	.50	A	800	.53	A
	NB Direct On	1	1,500	950	.63	B	780	.52	A
	NB Loop On	1	900	370	.41	A	380	.42	A
	SB Off	1	1,500	1,080	.72	C	1,180	.79	C
	NB Off	1	1,500	530	.35	A	820	.55	A
I-5 at Hermosa	SB On	1	1,080	180	.17	A	370	.34	A
	NB Direct On	1	1,500	1,290	.86	D	1,030	.69	B
	NB Loop On	1	1,080	160	.15	A	240	.22	A
	SB Off	1	1,500	1,320	.88	D	1,420	.95	E
	NB Off	1	1,500	270	.18	A	240	.16	A
I-5 at Pico	SB On	1	1,500	460	.31	A	1,120	.75	C
	NB On (a)	1	1,500	1,140	.76	C	1,660	1.11	F
	SB Off	2	2,250	1,570	.70	B	1,130	.50	A
	NB Off	1	1,500	750	.50	A	850	.57	A
I-5 at El Camino Real	SB On	1	1,500	170	.11	A	200	.13	A
	NB On	1	1,500	530	.35	A	380	.25	A
	SB Off	1	1,500	430	.29	A	770	.51	A
	NB Off	1	1,500	100	.07	A	280	.19	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	400	.27	A	540	.36	A
	SB Off	1	1,500	220	.15	A	230	.15	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basillone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	250	.17	A	190	.13	A
	NB On	1	1,500	1,180	.79	C	670	.45	A
	SB Off	1	1,500	590	.39	A	970	.65	B
	NB Off	1	1,500	280	.19	A	200	.13	A
SR 241 at Santa Margarita	SB On	1	1,500	130	.09	A	130	.09	A
	NB On	1	1,500	3,330	2.22	F	1,230	.82	D
	SB Off	1	1,500	910	.61	B	2,230	1.49	F
	NB Off	1	1,500	80	.05	A	40	.03	A
SR 241 at Antonio	SB On	1	1,500	120	.08	A	210	.14	A
	NB On (toll)	1	1,500	2,100	1.40	F	420	.28	A
	SB Off (toll)	1	1,500	330	.22	A	1,410	.94	E
	NB Off	1	1,500	200	.13	A	100	.07	A

Table E-10 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-INITIAL AND ULTIMATE
 ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	220	.15	A	500	.33	A
	NB On (toll)	1	1,500	1,050	.70	B	150	.10	A
	SB Off (toll)	1	1,500	110	.07	A	640	.43	A
	NB Off	1	1,500	260	.17	A	300	.20	A
SR 241 at Crown Valley	SB On	1	1,500	190	.13	A	330	.22	A
	NB On (toll)	1	1,500	580	.39	A	80	.05	A
	SB Off (toll)	1	1,500	50	.03	A	540	.36	A
	NB Off	1	1,500	440	.29	A	300	.20	A
SR 241 at Ortega Access Road	SB On (toll)	1	1,500	860	.57	A	470	.31	A
	NB On	2	3,000	2,280	.76	C	840	.28	A
	SB Off	2	3,000	360	.12	A	2,080	.69	B
	NB Off (toll)	1	1,500	400	.27	A	760	.51	A
SR 241 at Pico	SB On (toll)	1	1,500	160	.11	A	320	.21	A
	NB On	1	1,500	510	.34	A	800	.53	A
	SB Off	1	1,500	910	.61	B	610	.41	A
	NB Off (toll)	1	1,500	130	.09	A	170	.11	A
SR 241 at Cristianitos	NB On	1	1,500	190	.13	A	230	.15	A
	SB Off	1	1,500	270	.18	A	400	.27	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Table E-11
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	220	.20	A	220	.20	A
	SB Loop On	1	1,080	660	.61	B	800	.74	C
	NB Direct On	1	1,500	1,220	.81	D	610	.41	A
	NB Loop On	1	1,500	1,320	.88	D	470	.31	A
	SB Off	2	3,000	1,540	.51	A	2,200	.73	C
	NB Off	1	1,500	280	.19	A	890	.59	A
I-5 at La Paz	SB Direct On	1	1,080	150	.14	A	250	.23	A
	SB Loop On	1	1,080	230	.21	A	440	.41	A
	NB Direct On	1	1,500	620	.41	A	250	.17	A
	NB Loop On	1	1,080	340	.31	A	390	.36	A
	SB Off	1	1,500	730	.49	A	1,110	.74	C
	NB Off	1	1,500	710	.47	A	710	.47	A
I-5 at Oso	SB Direct On	1	1,080	320	.30	A	590	.55	A
	SB Loop On	1	1,080	620	.57	A	340	.31	A
	NB Direct On	1	1,500	1,160	.77	C	690	.46	A
	NB Loop On	1	1,500	220	.15	A	570	.38	A
	SB Off	1	1,500	980	.65	B	1,630	1.09	F
	NB Off	1	1,500	670	.45	A	920	.61	B
I-5 at Crown Valley ¹	SB On	1	1,800	680	.38	A	1,050	.58	A
	NB Direct On	1	1,500	1,570	1.05	F	1,730	1.15	F
	NB Loop On	1	1,080	650	.60	A	960	.89	D
	SB Off	2	2,250	1,960	.87	D	3,490	1.55	F
	NB Off	1	1,500	1,250	.83	D	600	.40	A
I-5 at Avery	SB On	1	1,080	460	.43	A	480	.44	A
	NB On	1	1,500	990	.66	B	900	.60	A
	SB Off	1	1,500	790	.53	A	1,110	.74	C
	NB Off	1	1,500	690	.46	A	780	.52	A
I-5 at Junipero Serra	SB On	1	1,080	600	.56	A	590	.55	A
	NB On	1	1,080	1,520	1.41	F	920	.85	D
	SB Off	1	1,500	810	.54	A	1,250	.83	D
	NB Off	1	1,500	400	.27	A	530	.35	A
I-5 at Ortega ¹	SB On	1	1,500	400	.27	A	480	.32	A
	NB On	1	1,500	2,150	1.43	F	1,950	1.30	F
	SB Off	2	2,250	1,990	.88	D	2,510	1.12	F
	NB Off	1	1,500	720	.48	A	730	.49	A
I-5 at Camino Capistrano	SB On	1	1,500	640	.43	A	570	.38	A
	NB On	1	1,500	870	.58	A	540	.36	A
	SB Off	1	1,500	1,000	.67	B	1,590	1.06	F
	NB Off	1	1,500	550	.37	A	770	.51	A
I-5 at Stonehill	NB On	1	1,500	1,020	.68	B	1,760	1.17	F

Table E-11 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-ULTIMATE ALTERNATIVE (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,030	1.14	F	1,260	1.40	F
	SB Loop On	1	900	170	.19	A	110	.12	A
	NB Direct On	1	900	440	.49	A	180	.20	A
	NB Loop On	1	900	370	.41	A	300	.33	A
	SB Off	2	2,250	790	.35	A	1,070	.48	A
	NB Off	2	2,250	120	.05	A	260	.12	A
I-5 at Estrella	SB On	1	1,500	750	.50	A	810	.54	A
	NB Direct On	1	1,500	960	.64	B	780	.52	A
	NB Loop On	1	900	380	.42	A	380	.42	A
	SB Off	1	1,500	1,080	.72	C	1,200	.80	C
	NB Off	1	1,500	540	.36	A	840	.56	A
I-5 at Hermosa	SB On	1	1,080	180	.17	A	370	.34	A
	NB Direct On	1	1,500	1,290	.86	D	1,050	.70	B
	NB Loop On	1	1,080	170	.16	A	240	.22	A
	SB Off	1	1,500	1,290	.86	D	1,380	.92	E
	NB Off	1	1,500	260	.17	A	240	.16	A
I-5 at Pico	SB On	1	1,500	470	.31	A	1,110	.74	C
	NB On	1	1,500	1,110	.74	C	1,680	1.12	F
	SB Off	2	2,250	1,590	.71	C	1,180	.52	A
	NB Off	1	1,500	740	.49	A	840	.56	A
I-5 at El Camino Real	SB On	1	1,500	190	.13	A	220	.15	A
	NB On	1	1,500	520	.35	A	380	.25	A
	SB Off	1	1,500	440	.29	A	770	.51	A
	NB Off	1	1,500	110	.07	A	300	.20	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	450	.30	A	570	.38	A
	SB Off	1	1,500	230	.15	A	250	.17	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	200	.13	A	120	.08	A
	NB On	1	1,500	1,300	.87	D	840	.56	A
	SB Off	1	1,500	760	.51	A	1,030	.69	B
	NB Off	1	1,500	210	.14	A	140	.09	A
SR 241 at Santa Margarita	SB On	1	1,500	170	.11	A	270	.18	A
	NB On	1	1,500	4,050	2.70	F	2,200	1.47	F
	SB Off	1	1,500	1,550	1.03	F	3,000	2.00	F
	NB Off	1	1,500	140	.09	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	160	.11	A	320	.21	A
	NB On	1	1,500	2,680	1.79	F	620	.41	A
	SB Off	1	1,500	840	.56	A	1,750	1.17	F
	NB Off	1	1,500	390	.26	A	150	.10	A

Table E-11 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-ULTIMATE ALTERNATIVE (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	410	.27	A	640	.43	A
	NB On	1	1,500	940	.63	B	230	.15	A
	SB Off	1	1,500	150	.10	A	620	.41	A
	NB Off	1	1,500	580	.39	A	460	.31	A
SR 241 at Crown Valley	SB On	1	1,500	320	.21	A	610	.41	A
	NB On	1	1,500	770	.51	A	230	.15	A
	SB Off	1	1,500	150	.10	A	720	.48	A
	NB Off	1	1,500	650	.43	A	470	.31	A
SR 241 at Ortega Access Road	SB On	1	1,500	870	.58	A	520	.35	A
	NB On	2	3,000	2,660	.89	D	1,120	.37	A
	SB Off	2	3,000	600	.20	A	2,460	.82	D
	NB Off	1	1,500	460	.31	A	800	.53	A
SR 241 at Pico	SB On	1	1,500	160	.11	A	330	.22	A
	NB On	1	1,500	660	.44	A	1,010	.67	B
	SB Off	1	1,500	1,150	.77	C	750	.50	A
	NB Off	1	1,500	150	.10	A	170	.11	A
SR 241 at Cristianitos	NB On	1	1,500	220	.15	A	260	.17	A
	SB Off	1	1,500	310	.21	A	430	.29	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	680	.63	B	830	.77	C
	NB Direct On	1	1,500	1,480	.99	E	740	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	510	.34	A
	SB Off	2	3,000	1,670	.56	A	2,490	.83	D
	NB Off	1	1,500	220	.15	A	920	.61	B
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	230	.21	A
	SB Loop On	1	1,080	370	.34	A	430	.40	A
	NB Direct On	1	1,500	680	.45	A	240	.16	A
	NB Loop On	1	1,080	420	.39	A	360	.33	A
	SB Off	1	1,500	700	.47	A	1,170	.78	C
	NB Off	1	1,500	1,070	.71	C	660	.44	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	820	.76	C
	SB Loop On	1	1,080	690	.64	B	360	.33	A
	NB Direct On	1	1,500	1,280	.85	D	740	.49	A
	NB Loop On	1	1,500	380	.25	A	620	.41	A
	SB Off	1	1,500	1,110	.74	C	1,680	1.12	F
	NB Off	1	1,500	790	.53	A	1,070	.71	C
I-5 at Crown Valley ¹	SB On	1	1,800	850	.47	A	1,040	.58	A
	NB Direct On	1	1,500	1,500	1.00	E	1,630	1.09	F
	NB Loop On	1	1,080	720	.67	B	980	.91	E
	SB Off	2	2,250	2,030	.90	D	3,050	1.36	F
	NB Off	1	1,500	1,310	.87	D	830	.55	A
I-5 at Avery	SB On	1	1,080	610	.56	A	550	.51	A
	NB On	1	1,500	750	.50	A	830	.55	A
	SB Off	1	1,500	680	.45	A	960	.64	B
	NB Off	1	1,500	760	.51	A	840	.56	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	550	.51	A
	NB On	1	1,080	1,190	1.10	F	970	.90	D
	SB Off	1	1,500	820	.55	A	1,090	.73	C
	NB Off	1	1,500	400	.27	A	330	.22	A
I-5 at Ortega ¹	SB On	1	1,500	470	.31	A	560	.37	A
	NB On (a)	1	1,500	2,090	1.39	F	1,990	1.33	F
	SB Off (a)	2	2,250	2,170	.96	E	2,360	1.05	F
	NB Off	1	1,500	840	.56	A	750	.50	A
I-5 at Camino Capistrano	SB On	1	1,500	670	.45	A	600	.40	A
	NB On	1	1,500	840	.56	A	460	.31	A
	SB Off (a)	1	1,500	1,030	.69	B	1,540	1.03	F
	NB Off	1	1,500	580	.39	A	810	.54	A
I-5 at Stonehill	NB On (a)	1	1,500	1,010	.67	B	1,710	1.14	F

Table E-12 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	880	.98	E	1,290	1.43	F
	SB Loop On	1	900	210	.23	A	160	.18	A
	NB Direct On	1	900	340	.38	A	200	.22	A
	NB Loop On	1	900	400	.44	A	340	.38	A
	SB Off	2	2,250	860	.38	A	970	.43	A
	NB Off	2	2,250	180	.08	A	240	.11	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	850	.57	A
	NB Direct On	1	1,500	1,100	.73	C	930	.62	B
	NB Loop On	1	900	390	.43	A	370	.41	A
	SB Off	1	1,500	1,070	.71	C	1,370	.91	E
	NB Off	1	1,500	510	.34	A	850	.57	A
I-5 at Hermosa	SB On	1	1,080	20	.02	A	140	.13	A
	NB Direct On	1	1,500	1,450	.97	E	1,160	.77	C
	NB Loop On	1	1,080	150	.14	A	200	.19	A
	SB Off	1	1,500	1,450	.97	E	1,650	1.10	F
	NB Off	1	1,500	20	.01	A	40	.03	A
I-5 at Pico	SB On	1	1,500	140	.09	A	760	.51	A
	NB On (b)	1	1,500	3,620	2.41	F	3,330	2.22	F
	<i>With Mitigation</i>	2	1,800	3,620	2.01	F	3,330	1.85	F
	SB Off (b)	2	2,250	3,050	1.36	F	3,640	1.62	F
	<i>With Mitigation</i>	2	3,000	3,050	1.02	F	3,640	1.21	F
	NB Off	1	1,500	550	.37	A	380	.25	A
I-5 at El Camino Real	SB On	1	1,500	430	.29	A	500	.33	A
	NB Off	1	1,500	60	.04	A	200	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	120	.08	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basillone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	380	.25	A	260	.17	A
	NB On	1	1,500	1,070	.71	C	600	.40	A
	SB Off	1	1,500	570	.38	A	870	.58	A
	NB Off	1	1,500	330	.22	A	370	.25	A
SR 241 at Santa Margarita	SB On	1	1,500	200	.13	A	140	.09	A
	NB On	1	1,500	3,140	2.09	F	1,180	.79	C
	SB Off	1	1,500	920	.61	B	2,120	1.41	F
	NB Off	1	1,500	90	.06	A	60	.04	A
SR 241 at Antonio	SB On	1	1,500	210	.14	A	270	.18	A
	NB On (toll)	1	1,500	2,190	1.46	F	410	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,290	.86	D
	NB Off	1	1,500	280	.19	A	190	.13	A

Table E-12 (cont)
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	540	.36	A	820	.55	A
	NB On (toll)	1	1,500	840	.56	A	110	.07	A
	SB Off (toll)	1	1,500	90	.06	A	550	.37	A
	NB Off	1	1,500	720	.48	A	650	.43	A
SR 241 at C Street	SB On (toll)	1	1,500	70	.05	A	60	.04	A
	NB On	1	1,500	1,210	.81	D	640	.43	A
	SB Off	1	1,500	490	.33	A	1,200	.80	C
	NB Off (toll)	1	1,500	60	.04	A	80	.05	A
SR 241 at North River	SB On (toll)	1	1,500	840	.56	A	590	.39	A
	NB Direct On	1	1,500	480	.32	A	210	.14	A
	NB Loop On	1	1,500	300	.20	A	50	.03	A
	SB Off	1	1,500	130	.09	A	790	.53	A
	NB Off (toll)	1	1,500	480	.32	A	810	.54	A
SR 241 at Hermosa	SB On (toll)	1	1,500	440	.29	A	520	.35	A
	NB Direct On	1	1,500	580	.39	A	710	.47	A
	NB Loop On	1	1,500	300	.20	A	250	.17	A
	SB Off	1	1,500	790	.53	A	810	.54	A
	NB Off (toll)	1	1,500	360	.24	A	560	.37	A
SR 241 at Del Cerro	SB On	1	1,500	410	.27	A	520	.35	A
	NB On	1	1,500	140	.09	A	230	.15	A
	SB Off	1	1,500	380	.25	A	170	.11	A
	NB Off	1	1,500	290	.19	A	490	.33	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	660	.61	B	840	.78	C
	NB Direct On	1	1,500	1,460	.97	E	740	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	500	.33	A
	SB Off	2	3,000	1,650	.55	A	2,470	.82	D
	NB Off	1	1,500	190	.13	A	910	.61	B
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	230	.21	A
	SB Loop On	1	1,080	370	.34	A	430	.40	A
	NB Direct On	1	1,500	650	.43	A	240	.16	A
	NB Loop On	1	1,080	440	.41	A	340	.31	A
	SB Off	1	1,500	670	.45	A	1,110	.74	C
	NB Off	1	1,500	1,130	.75	C	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	800	.74	C
	SB Loop On	1	1,080	670	.62	B	370	.34	A
	NB Direct On	1	1,500	1,270	.85	D	740	.49	A
	NB Loop On	1	1,500	270	.18	A	640	.43	A
	SB Off	1	1,500	1,070	.71	C	1,590	1.06	F
	NB Off	1	1,500	780	.52	A	1,020	.68	B
I-5 at Crown Valley ¹	SB On	1	1,800	730	.41	A	1,020	.57	A
	NB Direct On	1	1,500	1,490	.99	E	1,590	1.06	F
	NB Loop On	1	1,080	720	.67	B	900	.83	D
	SB Off	2	2,250	1,960	.87	D	3,050	1.36	F
	NB Off	1	1,500	1,270	.85	D	670	.45	A
I-5 at Avery	SB On	1	1,080	480	.44	A	470	.44	A
	NB On	1	1,500	910	.61	B	820	.55	A
	SB Off	1	1,500	700	.47	A	1,190	.79	C
	NB Off	1	1,500	680	.45	A	760	.51	A
I-5 at Junipero Serra	SB On	1	1,080	600	.56	A	610	.56	A
	NB On	1	1,080	1,350	1.25	F	910	.84	D
	SB Off	1	1,500	790	.53	A	1,170	.78	C
	NB Off	1	1,500	420	.28	A	510	.34	A
I-5 at Ortega ¹	SB On	1	1,500	350	.23	A	450	.30	A
	NB On (a)	1	1,500	2,180	1.45	F	1,990	1.33	F
	SB Off	2	2,250	2,130	.95	E	2,450	1.09	F
	NB Off	1	1,500	740	.49	A	660	.44	A
I-5 at Camino Capistrano	SB On	1	1,500	620	.41	A	520	.35	A
	NB On	1	1,500	860	.57	A	480	.32	A
	SB Off (a)	1	1,500	980	.65	B	1,590	1.06	F
	NB Off	1	1,500	530	.35	A	720	.48	A
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,670	1.11	F

Table E-13 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	990	1.10	F	1,260	1.40	F
	SB Loop On	1	900	160	.18	A	90	.10	A
	NB Direct On	1	900	350	.39	A	170	.19	A
	NB Loop On	1	900	340	.38	A	250	.28	A
	SB Off	2	2,250	750	.33	A	920	.41	A
	NB Off	2	2,250	120	.05	A	250	.11	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	770	.51	A
	NB Direct On	1	1,500	910	.61	B	780	.52	A
	NB Loop On	1	900	350	.39	A	350	.39	A
	SB Off	1	1,500	1,010	.67	B	1,130	.75	C
	NB Off	1	1,500	520	.35	A	860	.57	A
I-5 at Hermosa	SB On	1	1,080	20	.02	A	110	.10	A
	NB Direct On	1	1,500	1,330	.89	D	980	.65	B
	NB Loop On	1	1,080	150	.14	A	220	.20	A
	SB Off	1	1,500	1,240	.83	D	1,350	.90	D
	NB Off	1	1,500	110	.07	A	80	.05	A
I-5 at Pico	SB On	1	1,500	190	.13	A	650	.43	A
	NB On (b)	1	1,500	3,420	2.28	F	3,310	2.21	F
	<i>With Mitigation</i>	2	1,800	3,420	1.90	F	3,310	1.84	F
	SB Off (b)	2	2,250	2,830	1.26	F	3,300	1.47	F
	<i>With Mitigation</i>	2	3,000	2,830	.94	E	3,300	1.10	F
	NB Off	1	1,500	510	.34	A	320	.21	A
I-5 at El Camino Real	SB On	1	1,500	450	.30	A	540	.36	A
	NB Off	1	1,500	80	.05	A	250	.17	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	130	.09	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	200	.13	A
	NB On	1	1,500	1,120	.75	C	620	.41	A
	SB Off	1	1,500	580	.39	A	880	.59	A
	NB Off	1	1,500	280	.19	A	210	.14	A
SR 241 at Santa Margarita	SB On	1	1,500	150	.10	A	130	.09	A
	NB On	1	1,500	3,150	2.10	F	1,190	.79	C
	SB Off	1	1,500	910	.61	B	2,100	1.40	F
	NB Off	1	1,500	90	.06	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	180	.12	A	250	.17	A
	NB On (toll)	1	1,500	2,190	1.46	F	410	.27	A
	SB Off (toll)	1	1,500	340	.23	A	1,280	.85	D
	NB Off	1	1,500	240	.16	A	170	.11	A

Table E-13 (cont)
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	490	.33	A	740	.49	A
	NB On (toll)	1	1,500	880	.59	A	110	.07	A
	SB Off (toll)	1	1,500	90	.06	A	550	.37	A
	NB Off	1	1,500	660	.44	A	590	.39	A
SR 241 at C Street	SB On (toll)	1	1,500	60	.04	A	50	.03	A
	NB On	1	1,500	1,200	.80	C	660	.44	A
	SB Off	1	1,500	530	.35	A	1,100	.73	C
	NB Off (toll)	1	1,500	50	.03	A	60	.04	A
SR 241 at North River	SB On (toll)	1	1,500	620	.41	A	420	.28	A
	NB Direct On	1	1,500	470	.31	A	210	.14	A
	NB Loop On	1	1,500	300	.20	A	50	.03	A
	SB Off	1	1,500	140	.09	A	810	.54	A
	NB Off (toll)	1	1,500	370	.25	A	580	.39	A
SR 241 at Hermosa	SB On (toll)	1	1,500	460	.31	A	550	.37	A
	NB Direct On	1	1,500	460	.31	A	590	.39	A
	NB Loop On	1	1,500	170	.11	A	140	.09	A
	SB Off	1	1,500	610	.41	A	580	.39	A
	NB Off (toll)	1	1,500	360	.24	A	580	.39	A
SR 241 at Del Cerro	SB On	1	1,500	410	.27	A	530	.35	A
	NB On	1	1,500	90	.06	A	110	.07	A
	SB Off	1	1,500	180	.12	A	50	.03	A
	NB Off	1	1,500	340	.23	A	500	.33	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	670	.62	B	690	.64	B
	NB Direct On	1	1,500	1,540	1.03	F	750	.50	A
	NB Loop On	1	1,500	1,570	1.05	F	480	.32	A
	SB Off	2	3,000	1,620	.54	A	2,490	.83	D
	NB Off	1	1,500	200	.13	A	870	.58	A
I-5 at La Paz	SB Direct On	1	1,080	130	.12	A	240	.22	A
	SB Loop On	1	1,080	330	.31	A	400	.37	A
	NB Direct On	1	1,500	660	.44	A	200	.13	A
	NB Loop On	1	1,080	390	.36	A	320	.30	A
	SB Off	1	1,500	680	.45	A	1,100	.73	C
	NB Off	1	1,500	990	.66	B	660	.44	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	780	.72	C
	SB Loop On	1	1,080	630	.58	A	330	.31	A
	NB Direct On	1	1,500	1,490	.99	E	760	.51	A
	NB Loop On	1	1,500	260	.17	A	620	.41	A
	SB Off	1	1,500	1,100	.73	C	1,470	.98	E
	NB Off	1	1,500	900	.60	A	1,000	.67	B
I-5 at Crown Valley ¹	SB On	1	1,800	720	.40	A	1,070	.59	A
	NB Direct On	1	1,500	1,480	.99	E	1,790	1.19	F
	NB Loop On	1	1,080	730	.68	B	940	.87	D
	SB Off	2	2,250	1,970	.88	D	3,490	1.55	F
	NB Off	1	1,500	1,240	.83	D	610	.41	A
I-5 at Avery	SB On	1	1,080	470	.44	A	460	.43	A
	NB On	1	1,500	950	.63	B	810	.54	A
	SB Off	1	1,500	720	.48	A	1,120	.75	C
	NB Off	1	1,500	700	.47	A	800	.53	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	620	.57	A
	NB On	1	1,080	1,410	1.31	F	910	.84	D
	SB Off	1	1,500	800	.53	A	1,210	.81	D
	NB Off	1	1,500	410	.27	A	490	.33	A
I-5 at Ortega ¹	SB On	1	1,500	390	.26	A	460	.31	A
	NB On	1	1,500	2,110	1.41	F	1,970	1.31	F
	SB Off	2	2,250	2,000	.89	D	2,520	1.12	F
	NB Off	1	1,500	730	.49	A	720	.48	A
I-5 at Camino Capistrano	SB On	1	1,500	650	.43	A	560	.37	A
	NB On	1	1,500	930	.62	B	500	.33	A
	SB Off (a)	1	1,500	970	.65	B	1,580	1.05	F
	NB Off	1	1,500	550	.37	A	760	.51	A
I-5 at Stonehill	NB On (a)	1	1,500	970	.65	B	1,680	1.12	F

Table E-14 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,010	1.12	F	1,250	1.39	F
	SB Loop On	1	900	170	.19	A	100	.11	A
	NB Direct On	1	900	420	.47	A	170	.19	A
	NB Loop On	1	900	340	.38	A	250	.28	A
	SB Off	2	2,250	740	.33	A	1,000	.44	A
	NB Off	2	2,250	110	.05	A	260	.12	A
I-5 at Estrella	SB On	1	1,500	750	.50	A	820	.55	A
	NB Direct On	1	1,500	940	.63	B	770	.51	A
	NB Loop On	1	900	360	.40	A	370	.41	A
	SB Off	1	1,500	1,060	.71	C	1,150	.77	C
	NB Off	1	1,500	550	.37	A	820	.55	A
I-5 at Hermosa	SB On	1	1,080	30	.03	A	130	.12	A
	NB Direct On	1	1,500	1,310	.87	D	1,050	.70	B
	NB Loop On	1	1,080	150	.14	A	240	.22	A
	SB Off	1	1,500	1,300	.87	D	1,420	.95	E
	NB Off	1	1,500	90	.06	A	50	.03	A
I-5 at Pico	SB On	1	1,500	150	.10	A	760	.51	A
	NB On (b)	1	1,500	3,300	2.20	F	3,340	2.23	F
	<i>With Mitigation</i>	2	1,800	3,300	1.83	F	3,340	1.86	F
	SB Off (b)	2	2,250	2,950	1.31	F	3,390	1.51	F
	<i>With Mitigation</i>	2	3,000	2,950	.98	E	3,390	1.13	F
	NB Off	1	1,500	540	.36	A	330	.22	A
I-5 at El Camino Real	SB On	1	1,500	470	.31	A	520	.35	A
	NB Off	1	1,500	60	.04	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	110	.07	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basillone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	250	.17	A	190	.13	A
	NB On	1	1,500	1,170	.78	C	670	.45	A
	SB Off	1	1,500	590	.39	A	940	.63	B
	NB Off	1	1,500	270	.18	A	200	.13	A
SR 241 at Santa Margarita	SB On	1	1,500	130	.09	A	130	.09	A
	NB On	1	1,500	3,300	2.20	F	1,230	.82	D
	SB Off	1	1,500	910	.61	B	2,210	1.47	F
	NB Off	1	1,500	80	.05	A	40	.03	A
SR 241 at Antonio	SB On	1	1,500	130	.09	A	220	.15	A
	NB On (toll)	1	1,500	2,160	1.44	F	420	.28	A
	SB Off (toll)	1	1,500	330	.22	A	1,410	.94	E
	NB Off	1	1,500	200	.13	A	120	.08	A

Table E-14 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	210	.14	A	490	.33	A
	NB On (toll)	1	1,500	1,030	.69	B	150	.10	A
	SB Off (toll)	1	1,500	100	.07	A	660	.44	A
	NB Off	1	1,500	250	.17	A	280	.19	A
SR 241 at Crown Valley	SB On	1	1,500	210	.14	A	330	.22	A
	NB On (toll)	1	1,500	590	.39	A	70	.05	A
	SB Off (toll)	1	1,500	50	.03	A	540	.36	A
	NB Off	1	1,500	430	.29	A	320	.21	A
SR 241 at Ortega Access Road	SB On (toll)	1	1,500	980	.65	B	530	.35	A
	NB On	2	3,000	2,310	.77	C	810	.27	A
	SB Off	2	3,000	360	.12	A	2,120	.71	C
	NB Off (toll)	1	1,500	450	.30	A	850	.57	A
SR 241 at Hermosa	SB On (toll)	1	1,500	440	.29	A	580	.39	A
	NB Direct On	1	1,500	380	.25	A	640	.43	A
	NB Loop On	1	1,500	170	.11	A	190	.13	A
	SB Off	1	1,500	780	.52	A	650	.43	A
	NB Off (toll)	1	1,500	370	.25	A	550	.37	A
SR 241 at Del Cerro	SB On	1	1,500	380	.25	A	500	.33	A
	NB On	1	1,500	100	.07	A	200	.13	A
	SB Off	1	1,500	300	.20	A	80	.05	A
	NB Off	1	1,500	290	.19	A	480	.32	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table E-15 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	690	.64	B	840	.78	C
	NB Direct On	1	1,500	1,470	.98	E	740	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	510	.34	A
	SB Off	2	3,000	1,670	.56	A	2,470	.82	D
	NB Off	1	1,500	230	.15	A	940	.63	B
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	230	.21	A
	SB Loop On	1	1,080	370	.34	A	430	.40	A
	NB Direct On	1	1,500	670	.45	A	250	.17	A
	NB Loop On	1	1,080	440	.41	A	360	.33	A
	SB Off	1	1,500	700	.47	A	1,200	.80	C
	NB Off	1	1,500	1,080	.72	C	660	.44	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	820	.76	C
	SB Loop On	1	1,080	710	.66	B	360	.33	A
	NB Direct On	1	1,500	1,270	.85	D	740	.49	A
	NB Loop On	1	1,500	370	.25	A	610	.41	A
	SB Off	1	1,500	1,120	.75	C	1,660	1.11	F
	NB Off	1	1,500	800	.53	A	1,110	.74	C
I-5 at Crown Valley ¹	SB On	1	1,800	870	.48	A	1,050	.58	A
	NB Direct On	1	1,500	1,480	.99	E	1,630	1.09	F
	NB Loop On	1	1,080	720	.67	B	970	.90	D
	SB Off	2	2,250	2,020	.90	D	3,010	1.34	F
	NB Off	1	1,500	1,300	.87	D	860	.57	A
I-5 at Avery	SB On	1	1,080	620	.57	A	550	.51	A
	NB On	1	1,500	750	.50	A	840	.56	A
	SB Off	1	1,500	680	.45	A	960	.64	B
	NB Off	1	1,500	740	.49	A	830	.55	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	550	.51	A
	NB On	1	1,080	1,200	1.11	F	980	.91	E
	SB Off	1	1,500	830	.55	A	1,090	.73	C
	NB Off	1	1,500	390	.26	A	330	.22	A
I-5 at Ortega ¹	SB On	1	1,500	510	.34	A	580	.39	A
	NB On (a)	1	1,500	2,070	1.38	F	1,980	1.32	F
	SB Off (a)	2	2,250	2,160	.96	E	2,360	1.05	F
	NB Off	1	1,500	840	.56	A	760	.51	A
I-5 at Camino Capistrano	SB On	1	1,500	670	.45	A	600	.40	A
	NB On	1	1,500	860	.57	A	460	.31	A
	SB Off (a)	1	1,500	1,020	.68	B	1,530	1.02	F
	NB Off	1	1,500	620	.41	A	810	.54	A
I-5 at Stonehill	NB On (a)	1	1,500	990	.66	B	1,700	1.13	F

Table E-15 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	870	.97	E	1,290	1.43	F
	SB Loop On	1	900	210	.23	A	160	.18	A
	NB Direct On	1	900	330	.37	A	200	.22	A
	NB Loop On	1	900	380	.42	A	310	.34	A
	SB Off	2	2,250	850	.38	A	970	.43	A
	NB Off	2	2,250	170	.08	A	230	.10	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	820	.55	A
	NB Direct On	1	1,500	1,130	.75	C	980	.65	B
	NB Loop On	1	900	380	.42	A	380	.42	A
	SB Off	1	1,500	1,100	.73	C	1,400	.93	E
	NB Off	1	1,500	510	.34	A	850	.57	A
I-5 at Hermosa	SB On	1	1,080	200	.19	A	370	.34	A
	NB Direct On	1	1,500	1,430	.95	E	1,100	.73	C
	NB Loop On	1	1,080	140	.13	A	190	.18	A
	SB Off	1	1,500	1,480	.99	E	1,630	1.09	F
	NB Off	1	1,500	210	.14	A	230	.15	A
I-5 at Pico	SB On	1	1,500	470	.31	A	1,230	.82	D
	NB On (a)	1	1,500	1,330	.89	D	1,620	1.08	F
	SB Off	2	2,250	1,660	.74	C	1,270	.56	A
	NB Off	1	1,500	750	.50	A	910	.61	B
I-5 at El Camino Real	SB On	1	1,500	130	.09	A	190	.13	A
	NB On	1	1,500	550	.37	A	380	.25	A
	SB Off	1	1,500	460	.31	A	780	.52	A
	NB Off	1	1,500	100	.07	A	270	.18	A
I-5 at Cristianitos	SB Direct On	1	1,500	40	.03	A	20	.01	A
	SB Loop On	2	2,250	770	.34	A	2,110	.94	E
	NB On	1	1,500	350	.23	A	480	.32	A
	SB Off	1	1,500	220	.15	A	240	.16	A
	NB Off	2	2,250	1,970	.88	D	1,730	.77	C
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	380	.25	A	260	.17	A
	NB On	1	1,500	1,110	.74	C	600	.40	A
	SB Off	1	1,500	570	.38	A	870	.58	A
	NB Off	1	1,500	340	.23	A	360	.24	A
SR 241 at Santa Margarita	SB On	1	1,500	200	.13	A	140	.09	A
	NB On	1	1,500	3,140	2.09	F	1,180	.79	C
	SB Off	1	1,500	920	.61	B	2,110	1.41	F
	NB Off	1	1,500	90	.06	A	50	.03	A

Table E-15 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Antonio	SB On	1	1,500	200	.13	A	280	.19	A
	NB On (toll)	1	1,500	2,180	1.45	F	410	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,290	.86	D
	NB Off	1	1,500	270	.18	A	180	.12	A
SR 241 at Oso	SB On	1	1,500	560	.37	A	840	.56	A
	NB On (toll)	1	1,500	900	.60	A	110	.07	A
	SB Off (toll)	1	1,500	90	.06	A	560	.37	A
	NB Off	1	1,500	730	.49	A	650	.43	A
SR 241 at C Street	SB On (toll)	1	1,500	50	.03	A	50	.03	A
	NB On	1	1,500	1,240	.83	D	650	.43	A
	SB Off	1	1,500	510	.34	A	1,190	.79	C
	NB Off (toll)	1	1,500	60	.04	A	70	.05	A
SR 241 at North River	SB On (toll)	1	1,500	770	.51	A	560	.37	A
	NB Direct On	1	1,500	500	.33	A	220	.15	A
	NB Loop On	1	1,500	300	.20	A	50	.03	A
	SB Off	1	1,500	130	.09	A	790	.53	A
	NB Off (toll)	1	1,500	430	.29	A	700	.47	A
SR 241 at Pico	SB On	1	1,500	140	.09	A	180	.12	A
	NB On	1	1,500	950	.63	B	1,040	.69	B
	SB Off	1	1,500	1,100	.73	C	1,020	.68	B
	NB Off	1	1,500	80	.05	A	120	.08	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	670	.62	B	840	.78	C
	NB Direct On	1	1,500	1,470	.98	E	730	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	510	.34	A
	SB Off	2	3,000	1,650	.55	A	2,470	.82	D
	NB Off	1	1,500	200	.13	A	910	.61	B
I-5 at La Paz	SB Direct On	1	1,080	130	.12	A	230	.21	A
	SB Loop On	1	1,080	370	.34	A	430	.40	A
	NB Direct On	1	1,500	650	.43	A	240	.16	A
	NB Loop On	1	1,080	440	.41	A	340	.31	A
	SB Off	1	1,500	670	.45	A	1,130	.75	C
	NB Off	1	1,500	1,060	.71	C	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	420	.39	A	800	.74	C
	SB Loop On	1	1,080	690	.64	B	370	.34	A
	NB Direct On	1	1,500	1,260	.84	D	730	.49	A
	NB Loop On	1	1,500	270	.18	A	650	.43	A
	SB Off	1	1,500	1,080	.72	C	1,570	1.05	F
	NB Off	1	1,500	790	.53	A	1,040	.69	B
I-5 at Crown Valley ¹	SB On	1	1,800	740	.41	A	1,030	.57	A
	NB Direct On	1	1,500	1,490	.99	E	1,590	1.06	F
	NB Loop On	1	1,080	720	.67	B	900	.83	D
	SB Off	2	2,250	1,960	.87	D	3,050	1.36	F
	NB Off	1	1,500	1,280	.85	D	670	.45	A
I-5 at Avery	SB On	1	1,080	480	.44	A	460	.43	A
	NB On	1	1,500	920	.61	B	800	.53	A
	SB Off	1	1,500	700	.47	A	1,180	.79	C
	NB Off	1	1,500	680	.45	A	760	.51	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	610	.56	A
	NB On	1	1,080	1,360	1.26	F	900	.83	D
	SB Off	1	1,500	790	.53	A	1,140	.76	C
	NB Off	1	1,500	420	.28	A	500	.33	A
I-5 at Ortega ¹	SB On	1	1,500	380	.25	A	450	.30	A
	NB On (a)	1	1,500	2,160	1.44	F	2,010	1.34	F
	SB Off	2	2,250	2,120	.94	E	2,460	1.09	F
	NB Off	1	1,500	750	.50	A	670	.45	A
I-5 at Camino Capistrano	SB On	1	1,500	620	.41	A	520	.35	A
	NB On	1	1,500	860	.57	A	470	.31	A
	SB Off (a)	1	1,500	970	.65	B	1,590	1.06	F
	NB Off	1	1,500	510	.34	A	720	.48	A
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,650	1.10	F

Table E-16 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	990	1.10	F	1,240	1.38	F
	SB Loop On	1	900	160	.18	A	90	.10	A
	NB Direct On	1	900	330	.37	A	160	.18	A
	NB Loop On	1	900	340	.38	A	240	.27	A
	SB Off	2	2,250	760	.34	A	900	.40	A
	NB Off	2	2,250	140	.06	A	230	.10	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	790	.53	A
	NB Direct On	1	1,500	910	.61	B	780	.52	A
	NB Loop On	1	900	350	.39	A	360	.40	A
	SB Off	1	1,500	1,020	.68	B	1,140	.76	C
	NB Off	1	1,500	510	.34	A	850	.57	A
I-5 at Hermosa	SB On	1	1,080	190	.18	A	360	.33	A
	NB Direct On	1	1,500	1,280	.85	D	940	.63	B
	NB Loop On	1	1,080	150	.14	A	220	.20	A
	SB Off	1	1,500	1,260	.84	D	1,330	.89	D
	NB Off	1	1,500	290	.19	A	270	.18	A
I-5 at Pico	SB On	1	1,500	430	.29	A	1,130	.75	C
	NB On (a)	1	1,500	1,230	.82	D	1,650	1.10	F
	SB Off	2	2,250	1,510	.67	B	1,110	.49	A
	NB Off	1	1,500	810	.54	A	900	.60	A
I-5 at El Camino Real	SB On	1	1,500	140	.09	A	200	.13	A
	NB On	1	1,500	540	.36	A	370	.25	A
	SB Off	1	1,500	370	.25	A	700	.47	A
	NB Off	1	1,500	120	.08	A	310	.21	A
I-5 at Cristianitos	SB Direct On	1	1,500	40	.03	A	20	.01	A
	SB Loop On	2	2,250	570	.25	A	1,910	.85	D
	NB On	1	1,500	320	.21	A	450	.30	A
	SB Off	1	1,500	200	.13	A	210	.14	A
	NB Off	2	2,250	1,740	.77	C	1,510	.67	B
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	200	.13	A
	NB On	1	1,500	1,120	.75	C	620	.41	A
	SB Off	1	1,500	580	.39	A	880	.59	A
	NB Off	1	1,500	280	.19	A	210	.14	A
SR 241 at Santa Margarita	SB On	1	1,500	140	.09	A	120	.08	A
	NB On	1	1,500	3,140	2.09	F	1,190	.79	C
	SB Off	1	1,500	910	.61	B	2,120	1.41	F
	NB Off	1	1,500	80	.05	A	50	.03	A

Table E-16 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Antonio	SB On	1	1,500	160	.11	A	240	.16	A
	NB On (toll)	1	1,500	2,220	1.48	F	400	.27	A
	SB Off (toll)	1	1,500	340	.23	A	1,290	.86	D
	NB Off	1	1,500	230	.15	A	150	.10	A
SR 241 at Oso	SB On	1	1,500	510	.34	A	760	.51	A
	NB On (toll)	1	1,500	910	.61	B	110	.07	A
	SB Off (toll)	1	1,500	90	.06	A	560	.37	A
	NB Off	1	1,500	680	.45	A	610	.41	A
SR 241 at C Street	SB On (toll)	1	1,500	60	.04	A	50	.03	A
	NB On	1	1,500	1,230	.82	D	670	.45	A
	SB Off	1	1,500	560	.37	A	1,160	.77	C
	NB Off (toll)	1	1,500	50	.03	A	70	.05	A
SR 241 at North River	SB On (toll)	1	1,500	540	.36	A	390	.26	A
	NB Direct On	1	1,500	490	.33	A	240	.16	A
	NB Loop On	1	1,500	290	.19	A	60	.04	A
	SB Off	1	1,500	150	.10	A	770	.51	A
	NB Off (toll)	1	1,500	340	.23	A	510	.34	A
SR 241 at Pico	SB On	1	1,500	140	.09	A	210	.14	A
	NB On	1	1,500	650	.43	A	700	.47	A
	SB Off	1	1,500	700	.47	A	630	.42	A
	NB Off	1	1,500	80	.05	A	120	.08	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	180	.17	A	210	.19	A
	SB Loop On	1	1,080	720	.67	B	880	.81	D
	NB Direct On	1	1,500	1,450	.97	E	700	.47	A
	NB Loop On	1	1,500	1,650	1.10	F	500	.33	A
	SB Off	2	3,000	1,640	.55	A	2,410	.80	C
	NB Off	1	1,500	230	.15	A	960	.64	B
I-5 at La Paz	SB Direct On	1	1,080	120	.11	A	220	.20	A
	SB Loop On	1	1,080	430	.40	A	430	.40	A
	NB Direct On	1	1,500	650	.43	A	230	.15	A
	NB Loop On	1	1,080	510	.47	A	340	.31	A
	SB Off	1	1,500	690	.46	A	1,160	.77	C
	NB Off	1	1,500	1,090	.73	C	710	.47	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	790	.73	C
	SB Loop On	1	1,080	780	.72	C	390	.36	A
	NB Direct On	1	1,500	1,260	.84	D	740	.49	A
	NB Loop On	1	1,500	320	.21	A	670	.45	A
	SB Off	1	1,500	1,140	.76	C	1,600	1.07	F
	NB Off	1	1,500	810	.54	A	1,150	.77	C
I-5 at Crown Valley ¹	SB On	1	1,800	950	.53	A	1,090	.61	B
	NB Direct On	1	1,500	1,380	.92	E	1,580	1.05	F
	NB Loop On	1	1,080	720	.67	B	970	.90	D
	SB Off	2	2,250	1,960	.87	D	2,910	1.29	F
	NB Off	1	1,500	1,340	.89	D	940	.63	B
I-5 at Avery	SB On	1	1,080	660	.61	B	480	.44	A
	NB On	1	1,500	770	.51	A	860	.57	A
	SB Off	1	1,500	670	.45	A	930	.62	B
	NB Off	1	1,500	690	.46	A	810	.54	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	560	.52	A
	NB On	1	1,080	1,160	1.07	F	1,120	1.04	F
	SB Off	1	1,500	830	.55	A	1,150	.77	C
	NB Off	1	1,500	330	.22	A	320	.21	A
I-5 at Ortega ¹	SB On	1	1,500	610	.41	A	660	.44	A
	NB On	1	1,500	2,000	1.33	F	1,790	1.19	F
	SB Off	2	2,250	2,120	.94	E	2,320	1.03	F
	NB Off	1	1,500	960	.64	B	820	.55	A
I-5 at Camino Capistrano	SB On	1	1,500	690	.46	A	610	.41	A
	NB On	1	1,500	880	.59	A	480	.32	A
	SB Off	1	1,500	1,000	.67	B	1,450	.97	E
	NB Off	1	1,500	680	.45	A	770	.51	A
I-5 at Stonehill	NB On	1	1,500	970	.65	B	1,580	1.05	F

Table E-17 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	760	.84	D	1,320	1.47	F
	SB Loop On	1	900	200	.22	A	240	.27	A
	NB Direct On	1	900	260	.29	A	170	.19	A
	NB Loop On	1	900	360	.40	A	250	.28	A
	SB Off	2	2,250	820	.36	A	830	.37	A
	NB Off	2	2,250	240	.11	A	210	.09	A
I-5 at Estrella	SB On	1	1,500	770	.51	A	860	.57	A
	NB Direct On	1	1,500	1,240	.83	D	1,090	.73	C
	NB Loop On	1	900	340	.38	A	370	.41	A
	SB Off	1	1,500	1,360	.91	E	1,530	1.02	F
	NB Off	1	1,500	460	.31	A	820	.55	A
I-5 at Hermosa	SB On	1	1,080	200	.19	A	290	.27	A
	NB Direct On	1	1,500	1,540	1.03	F	1,420	.95	E
	NB Loop On	1	1,080	170	.16	A	250	.23	A
	SB Off	1	1,500	1,420	.95	E	1,950	1.30	F
	NB Off	1	1,500	360	.24	A	170	.11	A
I-5 at Pico	SB On	1	1,500	620	.41	A	1,540	1.03	F
	NB On	1	1,500	1,400	.93	E	1,420	.95	E
	SB Off	2	2,250	1,570	.70	B	1,170	.52	A
	NB Off	1	1,500	930	.62	B	1,180	.79	C
I-5 at El Camino Real	SB On	1	1,500	100	.07	A	220	.15	A
	NB On	1	1,500	560	.37	A	400	.27	A
	SB Off	1	1,500	420	.28	A	880	.59	A
	NB Off	1	1,500	80	.05	A	200	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	130	.09	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	360	.24	A	240	.16	A
	NB On	1	1,500	1,150	.77	C	620	.41	A
	SB Off	1	1,500	580	.39	A	890	.59	A
	NB Off	1	1,500	300	.20	A	330	.22	A
SR 241 at Santa Margarita	SB On	1	1,500	120	.08	A	120	.08	A
	NB On	1	1,500	3,150	2.10	F	1,200	.80	C
	SB Off	1	1,500	900	.60	A	2,110	1.41	F
	NB Off	1	1,500	80	.05	A	40	.03	A
SR 241 at Antonio	SB On	1	1,500	140	.09	A	230	.15	A
	NB On (toll)	1	1,500	2,240	1.49	F	420	.28	A
	SB Off (toll)	1	1,500	330	.22	A	1,330	.89	D
	NB Off	1	1,500	230	.15	A	140	.09	A

Table E-17 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	550	.37	A	830	.55	A
	NB On (toll)	1	1,500	1,030	.69	B	120	.08	A
	SB Off (toll)	1	1,500	90	.06	A	610	.41	A
	NB Off	1	1,500	750	.50	A	620	.41	A
SR 241 at C Street	SB On (toll)	1	1,500	50	.03	A	70	.05	A
	NB On	2	2,250	1,550	.69	B	920	.41	A
	SB Off	1	1,500	780	.52	A	1,410	.94	E
	NB Off (toll)	1	1,500	60	.04	A	50	.03	A
SR 241 at North River	NB On (from WB North River)	1	1,500	630	.42	A	320	.21	A
	NB On (from EB North River)	1	1,500	620	.41	A	180	.12	A
	SB Off (to WB North River)	1	1,500	120	.08	A	830	.55	A
	SB Off (to EB North River)	1	1,500	200	.13	A	440	.29	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound WB – westbound
 SB – southbound EB – eastbound

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	680	.63	B	860	.80	C
	NB Direct On	1	1,500	1,450	.97	E	700	.47	A
	NB Loop On	1	1,500	1,600	1.07	F	490	.33	A
	SB Off	2	3,000	1,650	.55	A	2,420	.81	D
	NB Off	1	1,500	200	.13	A	920	.61	B
I-5 at La Paz	SB Direct On	1	1,080	130	.12	A	230	.21	A
	SB Loop On	1	1,080	390	.36	A	430	.40	A
	NB Direct On	1	1,500	640	.43	A	220	.15	A
	NB Loop On	1	1,080	470	.44	A	330	.31	A
	SB Off	1	1,500	670	.45	A	1,100	.73	C
	NB Off	1	1,500	1,120	.75	C	670	.45	A
I-5 at Oso	SB Direct On	1	1,080	420	.39	A	770	.71	C
	SB Loop On	1	1,080	710	.66	B	380	.35	A
	NB Direct On	1	1,500	1,260	.84	D	700	.47	A
	NB Loop On	1	1,500	270	.18	A	650	.43	A
	SB Off	1	1,500	1,070	.71	C	1,560	1.04	F
	NB Off	1	1,500	790	.53	A	1,030	.69	B
I-5 at Crown Valley ¹	SB On	1	1,800	770	.43	A	1,060	.59	A
	NB Direct On	1	1,500	1,460	.97	E	1,580	1.05	F
	NB Loop On	1	1,080	720	.67	B	890	.82	D
	SB Off	2	2,250	1,930	.86	D	3,010	1.34	F
	NB Off	1	1,500	1,320	.88	D	680	.45	A
I-5 at Avery	SB On	1	1,080	480	.44	A	420	.39	A
	NB On	1	1,500	920	.61	B	800	.53	A
	SB Off	1	1,500	700	.47	A	1,150	.77	C
	NB Off	1	1,500	640	.43	A	740	.49	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	580	.54	A
	NB On	1	1,080	1,320	1.22	F	1,040	.96	E
	SB Off	1	1,500	790	.53	A	1,270	.85	D
	NB Off	1	1,500	390	.26	A	470	.31	A
I-5 at Ortega ¹	SB On	1	1,500	400	.27	A	490	.33	A
	NB On	1	1,500	2,130	1.42	F	1,900	1.27	F
	SB Off	2	2,250	2,100	.93	E	2,320	1.03	F
	NB Off	1	1,500	790	.53	A	700	.47	A
I-5 at Camino Capistrano	SB On	1	1,500	640	.43	A	520	.35	A
	NB On	1	1,500	920	.61	B	470	.31	A
	SB Off	1	1,500	970	.65	B	1,430	.95	E
	NB Off	1	1,500	560	.37	A	700	.47	A
I-5 at Stonehill	NB On	1	1,500	980	.65	B	1,580	1.05	F

Table E-18 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	960	1.07	F	1,180	1.31	F
	SB Loop On	1	900	160	.18	A	130	.14	A
	NB Direct On	1	900	290	.32	A	150	.17	A
	NB Loop On	1	900	320	.36	A	220	.24	A
	SB Off	2	2,250	750	.33	A	870	.39	A
	NB Off	2	2,250	100	.04	A	200	.09	A
I-5 at Estrella	SB On	1	1,500	710	.47	A	690	.46	A
	NB Direct On	1	1,500	940	.63	B	800	.53	A
	NB Loop On	1	900	370	.41	A	350	.39	A
	SB Off	1	1,500	1,130	.75	C	1,290	.86	D
	NB Off	1	1,500	480	.32	A	780	.52	A
I-5 at Hermosa	SB On	1	1,080	370	.34	A	910	.84	D
	NB Direct On	1	1,500	1,150	.77	C	860	.57	A
	NB Loop On	1	1,080	140	.13	A	210	.19	A
	SB Off	1	1,500	1,230	.82	D	1,240	.83	D
	NB Off	1	1,500	660	.44	A	470	.31	A
I-5 at Pico	SB On	1	1,500	850	.57	A	1,440	.96	E
	NB On	1	1,500	1,310	.87	D	1,620	1.08	F
	SB Off	2	2,250	1,410	.63	B	1,090	.48	A
	NB Off	1	1,500	970	.65	B	1,240	.83	D
I-5 at El Camino Real	SB On	1	1,500	80	.05	A	140	.09	A
	NB On	1	1,500	610	.41	A	390	.26	A
	SB Off	1	1,500	460	.31	A	870	.58	A
	NB Off	1	1,500	100	.07	A	200	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	120	.08	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	190	.13	A
	NB On	1	1,500	1,110	.74	C	620	.41	A
	SB Off	1	1,500	580	.39	A	930	.62	B
	NB Off	1	1,500	280	.19	A	190	.13	A
SR 241 at Santa Margarita	SB On	1	1,500	100	.07	A	110	.07	A
	NB On	1	1,500	3,180	2.12	F	1,200	.80	C
	SB Off	1	1,500	910	.61	B	2,110	1.41	F
	NB Off	1	1,500	70	.05	A	40	.03	A
SR 241 at Antonio	SB On	1	1,500	110	.07	A	200	.13	A
	NB On (toll)	1	1,500	2,250	1.50	F	430	.29	A
	SB Off (toll)	1	1,500	370	.25	A	1,330	.89	D
	NB Off	1	1,500	220	.15	A	110	.07	A

Table E-18 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	550	.37	A	800	.53	A
	NB On (toll)	1	1,500	1,010	.67	B	130	.09	A
	SB Off (toll)	1	1,500	90	.06	A	610	.41	A
	NB Off	1	1,500	750	.50	A	640	.43	A
SR 241 at C Street	SB On (toll)	1	1,500	50	.03	A	70	.05	A
	NB On	2	2,250	1,570	.70	B	900	.40	A
	SB Off	1	1,500	750	.50	A	1,400	.93	E
	NB Off (toll)	1	1,500	60	.04	A	50	.03	A
SR 241 at North River	NB On (from WB North River)	1	1,500	630	.42	A	320	.21	A
	NB On (from EB North River)	1	1,500	610	.41	A	130	.09	A
	SB Off (to WB North River)	1	1,500	70	.05	A	910	.61	B
	SB Off (to EB North River)	1	1,500	200	.13	A	420	.28	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound WB – westbound
 SB – southbound EB – eastbound

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	690	.64	B	840	.78	C
	NB Direct On	1	1,500	1,460	.97	E	730	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	510	.34	A
	SB Off	2	3,000	1,660	.55	A	2,460	.82	D
	NB Off	1	1,500	210	.14	A	930	.62	B
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	230	.21	A
	SB Loop On	1	1,080	390	.36	A	430	.40	A
	NB Direct On	1	1,500	670	.45	A	240	.16	A
	NB Loop On	1	1,080	440	.41	A	360	.33	A
	SB Off	1	1,500	700	.47	A	1,190	.79	C
	NB Off	1	1,500	1,050	.70	B	670	.45	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	810	.75	C
	SB Loop On	1	1,080	720	.67	B	370	.34	A
	NB Direct On	1	1,500	1,260	.84	D	750	.50	A
	NB Loop On	1	1,500	370	.25	A	620	.41	A
	SB Off	1	1,500	1,140	.76	C	1,660	1.11	F
	NB Off	1	1,500	800	.53	A	1,110	.74	C
I-5 at Crown Valley ¹	SB On	1	1,800	870	.48	A	1,050	.58	A
	NB Direct On	1	1,500	1,460	.97	E	1,620	1.08	F
	NB Loop On	1	1,080	720	.67	B	980	.91	E
	SB Off	2	2,250	2,000	.89	D	2,990	1.33	F
	NB Off	1	1,500	1,300	.87	D	860	.57	A
I-5 at Avery	SB On	1	1,080	630	.58	A	510	.47	A
	NB On	1	1,500	740	.49	A	850	.57	A
	SB Off	1	1,500	680	.45	A	940	.63	B
	NB Off	1	1,500	730	.49	A	830	.55	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	570	.53	A
	NB On	1	1,080	1,200	1.11	F	980	.91	E
	SB Off	1	1,500	830	.55	A	1,160	.77	C
	NB Off	1	1,500	360	.24	A	320	.21	A
I-5 at Ortega ¹	SB On	1	1,500	510	.34	A	570	.38	A
	NB On (a)	1	1,500	2,050	1.37	F	1,950	1.30	F
	SB Off	2	2,250	2,160	.96	E	2,230	.99	E
	NB Off	1	1,500	860	.57	A	750	.50	A
I-5 at Camino Capistrano	SB On	1	1,500	670	.45	A	570	.38	A
	NB On	1	1,500	900	.60	A	480	.32	A
	SB Off	1	1,500	1,010	.67	B	1,480	.99	E
	NB Off	1	1,500	610	.41	A	810	.54	A
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,650	1.10	F

Table E-19 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)										
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour			
				Volume	V/C	LOS	Volume	V/C	LOS	
I-5 at PCH/Las Ramblas	SB Direct On	1	900	860	.96	E	1,260	1.40	F	
	SB Loop On	1	900	210	.23	A	160	.18	A	
	NB Direct On	1	900	290	.32	A	180	.20	A	
	NB Loop On	1	900	390	.43	A	300	.33	A	
	SB Off	2	2,250	840	.37	A	930	.41	A	
	NB Off	2	2,250	160	.07	A	210	.09	A	
I-5 at Estrella	SB On	1	1,500	760	.51	A	780	.52	A	
	NB Direct On	1	1,500	1,130	.75	C	1,070	.71	C	
	NB Loop On	1	900	350	.39	A	380	.42	A	
	SB Off	1	1,500	1,200	.80	C	1,390	.93	E	
	NB Off	1	1,500	500	.33	A	830	.55	A	
I-5 at Hermosa	SB On	1	1,080	300	.28	A	930	.86	D	
	NB Direct On	1	1,500	1,400	.93	E	940	.63	B	
	NB Loop On	1	1,080	150	.14	A	200	.19	A	
	SB Off	1	1,500	1,390	.93	E	1,520	1.01	F	
	NB Off	1	1,500	570	.38	A	530	.35	A	
I-5 at Pico	SB On (b)	1	1,500	750	.50	A	2,260	1.51	F	
	<i>With Mitigation</i>									
	SB Direct On	1	1,500	100	.07	A	420	.28	A	
	SB Loop On	1	1,500	650	.43	A	1,840	1.23	F	
	<i>With Mitigation</i>									
	NB On (b)	1	1,500	1,200	.80	C	1,520	1.01	F	
	With Mitigation	2	1,800	1,200	.67	B	1,520	.84	D	
	SB Off	2	2,250	1,540	.68	B	1,160	.52	A	
	NB Off (b)	1	1,500	1,740	1.16	F	1,760	1.17	F	
With Mitigation	2	2,250	1,740	.77	C	1,760	.78	C		
I-5 at El Camino Real	SB On	1	1,500	80	.05	A	90	.06	A	
	NB On	1	1,500	610	.41	A	470	.31	A	
	SB Off	1	1,500	530	.35	A	940	.63	B	
	NB Off	1	1,500	50	.03	A	210	.14	A	
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A	
	NB On	1	1,500	120	.08	A	220	.15	A	
	SB Off	1	1,500	160	.11	A	130	.09	A	
	NB Off	1	1,500	290	.19	A	180	.12	A	
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A	
	NB On	1	1,500	250	.17	A	570	.38	A	
	SB Off	1	1,500	380	.25	A	320	.21	A	
	NB Off	1	1,500	330	.22	A	120	.08	A	
SR 73 at Greenfield	SB On	1	1,500	380	.25	A	250	.17	A	
	NB On	1	1,500	1,090	.73	C	610	.41	A	
	SB Off	1	1,500	570	.38	A	890	.59	A	
	NB Off	1	1,500	320	.21	A	350	.23	A	

Table E-19 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Santa Margarita	SB On	1	1,500	190	.13	A	140	.09	A
	NB On	1	1,500	3,140	2.09	F	1,190	.79	C
	SB Off	1	1,500	920	.61	B	2,120	1.41	F
	NB Off	1	1,500	90	.06	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	200	.13	A	280	.19	A
	NB On (toll)	1	1,500	2,210	1.47	F	410	.27	A
	SB Off (toll)	1	1,500	320	.21	A	1,310	.87	D
	NB Off	1	1,500	280	.19	A	180	.12	A
SR 241 at Oso	SB On	1	1,500	590	.39	A	880	.59	A
	NB On (toll)	1	1,500	920	.61	B	110	.07	A
	SB Off (toll)	1	1,500	90	.06	A	570	.38	A
	NB Off	1	1,500	780	.52	A	710	.47	A
SR 241 at C Street	SB On (toll)	1	1,500	70	.05	A	60	.04	A
	NB On	1	1,500	1,290	.86	D	660	.44	A
	SB Off	1	1,500	550	.37	A	1,210	.81	D
	NB Off (toll)	1	1,500	80	.05	A	90	.06	A
SR 241 at North River	SB On (toll)	1	1,500	820	.55	A	560	.37	A
	NB Direct On	1	1,500	550	.37	A	270	.18	A
	NB Loop On	1	1,500	290	.19	A	60	.04	A
	SB Off	1	1,500	140	.09	A	800	.53	A
	NB Off (toll)	1	1,500	450	.30	A	740	.49	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	670	.62	B	840	.78	C
	NB Direct On	1	1,500	1,470	.98	E	720	.48	A
	NB Loop On	1	1,500	1,600	1.07	F	500	.33	A
	SB Off	2	3,000	1,650	.55	A	2,440	.81	D
	NB Off	1	1,500	200	.13	A	910	.61	B
I-5 at La Paz	SB Direct On	1	1,080	130	.12	A	230	.21	A
	SB Loop On	1	1,080	390	.36	A	430	.40	A
	NB Direct On	1	1,500	650	.43	A	220	.15	A
	NB Loop On	1	1,080	460	.43	A	320	.30	A
	SB Off	1	1,500	670	.45	A	1,120	.75	C
	NB Off	1	1,500	1,090	.73	C	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	420	.39	A	780	.72	C
	SB Loop On	1	1,080	700	.65	B	370	.34	A
	NB Direct On	1	1,500	1,260	.84	D	740	.49	A
	NB Loop On	1	1,500	270	.18	A	670	.45	A
	SB Off	1	1,500	1,090	.73	C	1,570	1.05	F
	NB Off	1	1,500	780	.52	A	1,040	.69	B
I-5 at Crown Valley ¹	SB On	1	1,800	740	.41	A	1,030	.57	A
	NB Direct On	1	1,500	1,470	.98	E	1,590	1.06	F
	NB Loop On	1	1,080	720	.67	B	900	.83	D
	SB Off	2	2,250	1,950	.87	D	3,030	1.35	F
	NB Off	1	1,500	1,280	.85	D	670	.45	A
I-5 at Avery	SB On	1	1,080	480	.44	A	440	.41	A
	NB On	1	1,500	900	.60	A	810	.54	A
	SB Off	1	1,500	700	.47	A	1,190	.79	C
	NB Off	1	1,500	660	.44	A	740	.49	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	600	.56	A
	NB On	1	1,080	1,370	1.27	F	930	.86	D
	SB Off	1	1,500	790	.53	A	1,240	.83	D
	NB Off	1	1,500	410	.27	A	480	.32	A
I-5 at Ortega ¹	SB On	1	1,500	390	.26	A	450	.30	A
	NB On (a)	1	1,500	2,130	1.42	F	2,020	1.35	F
	SB Off	2	2,250	2,120	.94	E	2,310	1.03	F
	NB Off	1	1,500	750	.50	A	660	.44	A
I-5 at Camino Capistrano	SB On	1	1,500	610	.41	A	510	.34	A
	NB On	1	1,500	860	.57	A	460	.31	A
	SB Off (a)	1	1,500	960	.64	B	1,550	1.03	F
	NB Off	1	1,500	500	.33	A	710	.47	A
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,610	1.07	F

Table E-20 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)										
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour			
				Volume	V/C	LOS	Volume	V/C	LOS	
I-5 at PCH/Las Ramblas	SB Direct On	1	900	970	1.08	F	1,170	1.30	F	
	SB Loop On	1	900	160	.18	A	100	.11	A	
	NB Direct On	1	900	310	.34	A	150	.17	A	
	NB Loop On	1	900	330	.37	A	220	.24	A	
	SB Off	2	2,250	750	.33	A	850	.38	A	
	NB Off	2	2,250	130	.06	A	210	.09	A	
I-5 at Estrella	SB On	1	1,500	750	.50	A	770	.51	A	
	NB Direct On	1	1,500	890	.59	A	800	.53	A	
	NB Loop On	1	900	340	.38	A	360	.40	A	
	SB Off	1	1,500	1,030	.69	B	1,090	.73	C	
	NB Off	1	1,500	510	.34	A	830	.55	A	
I-5 at Hermosa	SB On	1	1,080	280	.26	A	820	.76	C	
	NB Direct On	1	1,500	1,260	.84	D	810	.54	A	
	NB Loop On	1	1,080	130	.12	A	180	.17	A	
	SB Off	1	1,500	1,270	.85	D	1,290	.86	D	
	NB Off	1	1,500	650	.43	A	410	.27	A	
I-5 at Pico	SB On (b)	1	1,500	630	.42	A	2,090	1.39	F	
	<i>With Mitigation</i>									
	SB Direct On	1	1,500	120	.08	A	540	.36	A	
	SB Loop On	1	1,500	510	.34	A	1,550	1.03	F	
	NB On	1	1,500	1,160	.77	C	1,610	1.07	F	
	SB Off	2	2,250	1,430	.64	B	990	.44	A	
	NB Off (b)	1	1,500	1,580	1.05	F	1,700	1.13	F	
	With Mitigation	2	2,250	1,580	.70	B	1,700	.76	C	
I-5 at El Camino Real	SB On	1	1,500	90	.06	A	100	.07	A	
	NB On	1	1,500	560	.37	A	430	.29	A	
	SB Off	1	1,500	440	.29	A	840	.56	A	
	NB Off	1	1,500	80	.05	A	260	.17	A	
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A	
	NB On	1	1,500	130	.09	A	220	.15	A	
	SB Off	1	1,500	160	.11	A	110	.07	A	
	NB Off	1	1,500	290	.19	A	180	.12	A	
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A	
	NB On	1	1,500	250	.17	A	570	.38	A	
	SB Off	1	1,500	380	.25	A	320	.21	A	
	NB Off	1	1,500	330	.22	A	120	.08	A	
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	190	.13	A	
	NB On	1	1,500	1,110	.74	C	620	.41	A	
	SB Off	1	1,500	580	.39	A	980	.65	B	
	NB Off	1	1,500	280	.19	A	200	.13	A	

Table E-20 (cont)
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Santa Margarita	SB On	1	1,500	140	.09	A	120	.08	A
	NB On	1	1,500	3,140	2.09	F	1,190	.79	C
	SB Off	1	1,500	910	.61	B	2,130	1.42	F
	NB Off	1	1,500	80	.05	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	150	.10	A	230	.15	A
	NB On (toll)	1	1,500	2,250	1.50	F	420	.28	A
	SB Off (toll)	1	1,500	340	.23	A	1,290	.86	D
	NB Off	1	1,500	240	.16	A	150	.10	A
SR 241 at Oso	SB On	1	1,500	540	.36	A	780	.52	A
	NB On (toll)	1	1,500	920	.61	B	110	.07	A
	SB Off (toll)	1	1,500	90	.06	A	570	.38	A
	NB Off	1	1,500	700	.47	A	650	.43	A
SR 241 at C Street	SB On (toll)	1	1,500	60	.04	A	50	.03	A
	NB On	1	1,500	1,270	.85	D	710	.47	A
	SB Off	1	1,500	580	.39	A	1,210	.81	D
	NB Off (toll)	1	1,500	70	.05	A	90	.06	A
SR 241 at North River	SB On (toll)	1	1,500	570	.38	A	300	.20	A
	NB Direct On	1	1,500	540	.36	A	280	.19	A
	NB Loop On	1	1,500	290	.19	A	60	.04	A
	SB Off	1	1,500	180	.12	A	800	.53	A
	NB Off (toll)	1	1,500	310	.21	A	530	.35	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	700	.65	B	840	.78	C
	NB Direct On	1	1,500	1,490	.99	E	740	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	520	.35	A
	SB Off	2	3,000	1,670	.56	A	2,500	.83	D
	NB Off	1	1,500	220	.15	A	910	.61	B
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	220	.20	A
	SB Loop On	1	1,080	340	.31	A	430	.40	A
	NB Direct On	1	1,500	670	.45	A	240	.16	A
	NB Loop On	1	1,080	410	.38	A	340	.31	A
	SB Off	1	1,500	700	.47	A	1,190	.79	C
	NB Off	1	1,500	1,110	.74	C	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	450	.42	A	830	.77	C
	SB Loop On	1	1,080	660	.61	B	340	.31	A
	NB Direct On	1	1,500	1,280	.85	D	760	.51	A
	NB Loop On	1	1,500	380	.25	A	580	.39	A
	SB Off	1	1,500	1,130	.75	C	1,650	1.10	F
	NB Off	1	1,500	790	.53	A	1,050	.70	B
I-5 at Crown Valley ¹	SB On	1	1,800	870	.48	A	1,050	.58	A
	NB Direct On	1	1,500	1,500	1.00	E	1,630	1.09	F
	NB Loop On	1	1,080	720	.67	B	980	.91	E
	SB Off	2	2,250	2,030	.90	D	3,070	1.36	F
	NB Off	1	1,500	1,300	.87	D	820	.55	A
I-5 at Avery	SB On	1	1,080	580	.54	A	550	.51	A
	NB On	1	1,500	740	.49	A	840	.56	A
	SB Off	1	1,500	690	.46	A	960	.64	B
	NB Off	1	1,500	760	.51	A	850	.57	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	540	.50	A
	NB On	1	1,080	1,140	1.06	F	940	.87	D
	SB Off	1	1,500	830	.55	A	1,050	.70	B
	NB Off	1	1,500	390	.26	A	340	.23	A
I-5 at Ortega ¹	SB On	1	1,500	440	.29	A	550	.37	A
	NB On (a)	1	1,500	2,140	1.43	F	2,010	1.34	F
	SB Off (a)	2	2,250	2,160	.96	E	2,420	1.08	F
	NB Off	1	1,500	830	.55	A	760	.51	A
I-5 at Camino Capistrano	SB On	1	1,500	650	.43	A	610	.41	A
	NB On	1	1,500	870	.58	A	490	.33	A
	SB Off (a)	1	1,500	1,040	.69	B	1,580	1.05	F
	NB Off	1	1,500	560	.37	A	800	.53	A
I-5 at Stonehill	NB On (a)	1	1,500	990	.66	B	1,730	1.15	F

Table E-21 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	900	1.00	E	1,260	1.40	F
	SB Loop On	1	900	200	.22	A	160	.18	A
	NB Direct On	1	900	360	.40	A	210	.23	A
	NB Loop On	1	900	390	.43	A	360	.40	A
	SB Off	2	2,250	870	.39	A	1,010	.45	A
	NB Off	2	2,250	180	.08	A	260	.12	A
I-5 at Estrella	SB On	1	1,500	770	.51	A	860	.57	A
	NB Direct On	1	1,500	1,080	.72	C	880	.59	A
	NB Loop On	1	900	410	.46	A	360	.40	A
	SB Off	1	1,500	1,060	.71	C	1,320	.88	D
	NB Off	1	1,500	520	.35	A	870	.58	A
I-5 at Hermosa	SB On	1	1,080	20	.02	A	110	.10	A
	NB Direct On	1	1,500	1,420	.95	E	1,160	.77	C
	NB Loop On	1	1,080	140	.13	A	200	.19	A
	SB Off	1	1,500	1,410	.94	E	1,630	1.09	F
	NB Off	1	1,500	20	.01	A	20	.01	A
I-5 at Pico	SB On	1	1,500	130	.09	A	750	.50	A
	NB On (b)	1	1,500	3,610	2.41	F	3,320	2.21	F
	<i>With Mitigation</i>	2	1,800	3,610	2.01	F	3,320	1.84	F
	SB Off (b)	2	2,250	3,040	1.35	F	3,650	1.62	F
	<i>With Mitigation</i>	2	3,000	3,040	1.01	F	3,650	1.22	F
	NB Off	1	1,500	560	.37	A	380	.25	A
I-5 at El Camino Real	SB On	1	1,500	430	.29	A	510	.34	A
	NB Off	1	1,500	60	.04	A	200	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	130	.09	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basillone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	380	.25	A	270	.18	A
	NB On	1	1,500	1,080	.72	C	610	.41	A
	SB Off	1	1,500	560	.37	A	850	.57	A
	NB Off	1	1,500	350	.23	A	360	.24	A
SR 241 at Santa Margarita	SB On	1	1,500	200	.13	A	140	.09	A
	NB On	1	1,500	3,100	2.07	F	1,170	.78	C
	SB Off	1	1,500	920	.61	B	2,110	1.41	F
	NB Off	1	1,500	90	.06	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	210	.14	A	250	.17	A
	NB On (toll)	1	1,500	2,060	1.37	F	400	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,270	.85	D
	NB Off	1	1,500	230	.15	A	180	.12	A

Table E-21 (cont)
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-INITIAL AND ULTIMATE
ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	410	.27	A	510	.34	A
	NB On (toll)	1	1,500	810	.54	A	90	.06	A
	SB Off (toll)	1	1,500	90	.06	A	510	.34	A
	NB Off	1	1,500	470	.31	A	480	.32	A
SR 241 at C Street	SB On (toll)	1	1,500	80	.05	A	40	.03	A
	NB On	1	1,500	1,370	.91	E	570	.38	A
	SB Off	1	1,500	340	.23	A	1,180	.79	C
	NB Off (toll)	1	1,500	70	.05	A	120	.08	A
SR 241 at North River	SB On (toll)	1	1,500	850	.57	A	680	.45	A
	NB Direct On	1	1,500	150	.10	A	30	.02	A
	NB Loop On	1	1,500	140	.09	A	100	.07	A
	SB Off	1	1,500	120	.08	A	270	.18	A
	NB Off (toll)	1	1,500	540	.36	A	790	.53	A
SR 241 at Hermosa	SB On (toll)	1	1,500	670	.45	A	700	.47	A
	NB Direct On	1	1,500	710	.47	A	610	.41	A
	NB Loop On	1	1,500	370	.25	A	440	.29	A
	SB Off	1	1,500	910	.61	B	1,100	.73	C
	NB Off (toll)	1	1,500	370	.25	A	580	.39	A
SR 241 at Del Cerro	SB On	1	1,500	330	.22	A	470	.31	A
	NB On	1	1,500	260	.17	A	270	.18	A
	SB Off	1	1,500	380	.25	A	200	.13	A
	NB Off	1	1,500	300	.20	A	480	.32	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table E-22
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	660	.61	B	830	.77	C
	NB Direct On	1	1,500	1,490	.99	E	740	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	510	.34	A
	SB Off	2	3,000	1,650	.55	A	2,480	.83	D
	NB Off	1	1,500	200	.13	A	900	.60	A
I-5 at La Paz	SB Direct On	1	1,080	150	.14	A	230	.21	A
	SB Loop On	1	1,080	350	.32	A	430	.40	A
	NB Direct On	1	1,500	670	.45	A	230	.15	A
	NB Loop On	1	1,080	430	.40	A	320	.30	A
	SB Off	1	1,500	680	.45	A	1,120	.75	C
	NB Off	1	1,500	1,160	.77	C	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	790	.73	C
	SB Loop On	1	1,080	640	.59	A	350	.32	A
	NB Direct On	1	1,500	1,270	.85	D	750	.50	A
	NB Loop On	1	1,500	270	.18	A	610	.41	A
	SB Off	1	1,500	1,100	.73	C	1,550	1.03	F
	NB Off	1	1,500	780	.52	A	990	.66	B
I-5 at Crown Valley ¹	SB On	1	1,800	710	.39	A	1,010	.56	A
	NB Direct On	1	1,500	1,500	1.00	E	1,590	1.06	F
	NB Loop On	1	1,080	720	.67	B	910	.84	D
	SB Off	2	2,250	1,960	.87	D	3,090	1.37	F
	NB Off	1	1,500	1,280	.85	D	650	.43	A
I-5 at Avery	SB On	1	1,080	480	.44	A	470	.44	A
	NB On	1	1,500	910	.61	B	820	.55	A
	SB Off	1	1,500	720	.48	A	1,180	.79	C
	NB Off	1	1,500	720	.48	A	770	.51	A
I-5 at Junipero Serra	SB On	1	1,080	600	.56	A	620	.57	A
	NB On	1	1,080	1,320	1.22	F	890	.82	D
	SB Off	1	1,500	790	.53	A	1,160	.77	C
	NB Off	1	1,500	400	.27	A	530	.35	A
I-5 at Ortega ¹	SB On	1	1,500	370	.25	A	470	.31	A
	NB On (a)	1	1,500	2,170	1.45	F	1,960	1.31	F
	SB Off	2	2,250	2,100	.93	E	2,460	1.09	F
	NB Off	1	1,500	750	.50	A	690	.46	A
I-5 at Camino Capistrano	SB On	1	1,500	610	.41	A	530	.35	A
	NB On	1	1,500	850	.57	A	480	.32	A
	SB Off (a)	1	1,500	980	.65	B	1,600	1.07	F
	NB Off	1	1,500	540	.36	A	730	.49	A
I-5 at Stonehill	NB On (a)	1	1,500	1,010	.67	B	1,700	1.13	F

Table E-22 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,010	1.12	F	1,250	1.39	F
	SB Loop On	1	900	160	.18	A	100	.11	A
	NB Direct On	1	900	360	.40	A	170	.19	A
	NB Loop On	1	900	350	.39	A	270	.30	A
	SB Off	2	2,250	760	.34	A	930	.41	A
	NB Off	2	2,250	140	.06	A	260	.12	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	790	.53	A
	NB Direct On	1	1,500	910	.61	B	780	.52	A
	NB Loop On	1	900	360	.40	A	360	.40	A
	SB Off	1	1,500	1,020	.68	B	1,130	.75	C
	NB Off	1	1,500	520	.35	A	880	.59	A
I-5 at Hermosa	SB On	1	1,080	20	.02	A	50	.05	A
	NB Direct On	1	1,500	1,350	.90	D	1,020	.68	B
	NB Loop On	1	1,080	170	.16	A	220	.20	A
	SB Off	1	1,500	1,240	.83	D	1,410	.94	E
	NB Off	1	1,500	100	.07	A	50	.03	A
I-5 at Pico	SB On	1	1,500	180	.12	A	620	.41	A
	NB On (b)	1	1,500	3,410	2.27	F	3,320	2.21	F
	<i>With Mitigation</i>	2	1,800	3,410	1.89	F	3,320	1.84	F
	SB Off (b)	2	2,250	2,850	1.27	F	3,330	1.48	F
	<i>With Mitigation</i>	2	3,000	2,850	.95	E	3,330	1.11	F
	NB Off	1	1,500	510	.34	A	290	.19	A
I-5 at El Camino Real	SB On	1	1,500	450	.30	A	540	.36	A
	NB Off	1	1,500	80	.05	A	250	.17	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	130	.09	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basillone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	200	.13	A
	NB On	1	1,500	1,110	.74	C	630	.42	A
	SB Off	1	1,500	570	.38	A	970	.65	B
	NB Off	1	1,500	280	.19	A	210	.14	A
SR 241 at Santa Margarita	SB On	1	1,500	190	.13	A	150	.10	A
	NB On	1	1,500	3,130	2.09	F	1,170	.78	C
	SB Off	1	1,500	910	.61	B	2,110	1.41	F
	NB Off	1	1,500	80	.05	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	190	.13	A	240	.16	A
	NB On (toll)	1	1,500	2,110	1.41	F	390	.26	A
	SB Off (toll)	1	1,500	330	.22	A	1,220	.81	D
	NB Off	1	1,500	220	.15	A	200	.13	A

Table E-22 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	390	.26	A	440	.29	A
	NB On (toll)	1	1,500	790	.53	A	90	.06	A
	SB Off (toll)	1	1,500	90	.06	A	520	.35	A
	NB Off	1	1,500	410	.27	A	440	.29	A
SR 241 at C Street	SB On (toll)	1	1,500	80	.05	A	30	.02	A
	NB On	1	1,500	1,330	.89	D	570	.38	A
	SB Off	1	1,500	340	.23	A	1,130	.75	C
	NB Off (toll)	1	1,500	30	.02	A	100	.07	A
SR 241 at North River	SB On (toll)	1	1,500	450	.30	A	410	.27	A
	NB Direct On	1	1,500	120	.08	A	30	.02	A
	NB Loop On	1	1,500	190	.13	A	180	.12	A
	SB Off	1	1,500	160	.11	A	330	.22	A
	NB Off (toll)	1	1,500	360	.24	A	440	.29	A
SR 241 at Hermosa	SB On (toll)	1	1,500	710	.47	A	760	.51	A
	NB Direct On	1	1,500	630	.42	A	470	.31	A
	NB Loop On	1	1,500	160	.11	A	190	.13	A
	SB Off	1	1,500	670	.45	A	810	.54	A
	NB Off (toll)	1	1,500	350	.23	A	610	.41	A
SR 241 at Del Cerro	SB On	1	1,500	340	.23	A	460	.31	A
	NB On	1	1,500	180	.12	A	200	.13	A
	SB Off	1	1,500	140	.09	A	100	.07	A
	NB Off	1	1,500	350	.23	A	460	.31	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	670	.62	B	680	.63	B
	NB Direct On	1	1,500	1,560	1.04	F	750	.50	A
	NB Loop On	1	1,500	1,570	1.05	F	490	.33	A
	SB Off	2	3,000	1,630	.54	A	2,490	.83	D
	NB Off	1	1,500	200	.13	A	870	.58	A
I-5 at La Paz	SB Direct On	1	1,080	130	.12	A	250	.23	A
	SB Loop On	1	1,080	320	.30	A	400	.37	A
	NB Direct On	1	1,500	660	.44	A	210	.14	A
	NB Loop On	1	1,080	390	.36	A	300	.28	A
	SB Off	1	1,500	670	.45	A	1,100	.73	C
	NB Off	1	1,500	970	.65	B	650	.43	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	780	.72	C
	SB Loop On	1	1,080	600	.56	A	320	.30	A
	NB Direct On	1	1,500	1,460	.97	E	760	.51	A
	NB Loop On	1	1,500	270	.18	A	590	.39	A
	SB Off	1	1,500	1,070	.71	C	1,500	1.00	E
	NB Off	1	1,500	900	.60	A	980	.65	B
I-5 at Crown Valley ¹	SB On	1	1,800	710	.39	A	1,070	.59	A
	NB Direct On	1	1,500	1,510	1.01	F	1,810	1.21	F
	NB Loop On	1	1,080	730	.68	B	940	.87	D
	SB Off	2	2,250	1,990	.88	D	3,450	1.53	F
	NB Off	1	1,500	1,230	.82	D	640	.43	A
I-5 at Avery	SB On	1	1,080	460	.43	A	460	.43	A
	NB On	1	1,500	950	.63	B	810	.54	A
	SB Off	1	1,500	740	.49	A	1,140	.76	C
	NB Off	1	1,500	710	.47	A	820	.55	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	630	.58	A
	NB On	1	1,080	1,340	1.24	F	910	.84	D
	SB Off	1	1,500	800	.53	A	1,210	.81	D
	NB Off	1	1,500	420	.28	A	510	.34	A
I-5 at Ortega ¹	SB On	1	1,500	380	.25	A	470	.31	A
	NB On	1	1,500	2,090	1.39	F	1,970	1.31	F
	SB Off	2	2,250	2,050	.91	E	2,500	1.11	F
	NB Off	1	1,500	730	.49	A	720	.48	A
I-5 at Camino Capistrano	SB On	1	1,500	640	.43	A	560	.37	A
	NB On	1	1,500	890	.59	A	530	.35	A
	SB Off (a)	1	1,500	980	.65	B	1,600	1.07	F
	NB Off	1	1,500	560	.37	A	750	.50	A
I-5 at Stonehill	NB On (a)	1	1,500	990	.66	B	1,710	1.14	F

Table E-23 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,030	1.14	F	1,240	1.38	F
	SB Loop On	1	900	170	.19	A	100	.11	A
	NB Direct On	1	900	410	.46	A	160	.18	A
	NB Loop On	1	900	350	.39	A	270	.30	A
	SB Off	2	2,250	760	.34	A	1,000	.44	A
	NB Off	2	2,250	130	.06	A	260	.12	A
I-5 at Estrella	SB On	1	1,500	750	.50	A	810	.54	A
	NB Direct On	1	1,500	950	.63	B	770	.51	A
	NB Loop On	1	900	370	.41	A	370	.41	A
	SB Off	1	1,500	1,080	.72	C	1,140	.76	C
	NB Off	1	1,500	530	.35	A	840	.56	A
I-5 at Hermosa	SB On	1	1,080	20	.02	A	30	.03	A
	NB Direct On	1	1,500	1,330	.89	D	1,080	.72	C
	NB Loop On	1	1,080	170	.16	A	230	.21	A
	SB Off	1	1,500	1,320	.88	D	1,460	.97	E
	NB Off	1	1,500	80	.05	A	20	.01	A
I-5 at Pico	SB On	1	1,500	140	.09	A	720	.48	A
	NB On (b)	1	1,500	3,310	2.21	F	3,380	2.25	F
	<i>With Mitigation</i>	2	1,800	3,310	1.84	F	3,380	1.88	F
	SB Off (b)	2	2,250	2,930	1.30	F	3,410	1.52	F
	<i>With Mitigation</i>	2	3,000	2,930	.98	E	3,410	1.14	F
	NB Off	1	1,500	560	.37	A	290	.19	A
I-5 at El Camino Real	SB On	1	1,500	470	.31	A	510	.34	A
	NB Off	1	1,500	60	.04	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	110	.07	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	250	.17	A	190	.13	A
	NB On	1	1,500	1,160	.77	C	670	.45	A
	SB Off	1	1,500	590	.39	A	960	.64	B
	NB Off	1	1,500	280	.19	A	200	.13	A
SR 241 at Santa Margarita	SB On	1	1,500	140	.09	A	120	.08	A
	NB On	1	1,500	3,310	2.21	F	1,230	.82	D
	SB Off	1	1,500	910	.61	B	2,230	1.49	F
	NB Off	1	1,500	80	.05	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	140	.09	A	180	.12	A
	NB On (toll)	1	1,500	2,100	1.40	F	410	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,400	.93	E
	NB Off	1	1,500	190	.13	A	130	.09	A

Table E-23 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-INITIAL AND ULTIMATE
 ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	100	.07	A	310	.21	A
	NB On (toll)	1	1,500	1,240	.83	D	120	.08	A
	SB Off (toll)	1	1,500	100	.07	A	720	.48	A
	NB Off	1	1,500	140	.09	A	210	.14	A
SR 241 at Crown Valley	SB On	1	1,500	440	.29	A	260	.17	A
	NB On (toll)	1	1,500	750	.50	A	130	.09	A
	SB Off (toll)	1	1,500	100	.07	A	850	.57	A
	NB Off	1	1,500	290	.19	A	340	.23	A
SR 241 at Ortega	SB On (toll)	1	1,500	860	.57	A	430	.29	A
	NB Direct On	1	1,500	1,260	.84	D	480	.32	A
	NB Loop On	1	1,500	160	.11	A	40	.03	A
	SB Off	1	1,500	190	.13	A	1,140	.76	C
	NB Off (toll)	1	1,500	380	.25	A	820	.55	A
SR 241 at Hermosa	SB On (toll)	1	1,500	680	.45	A	780	.52	A
	NB Direct On	1	1,500	610	.41	A	600	.40	A
	NB Loop On	1	1,500	170	.11	A	380	.25	A
	SB Off	1	1,500	940	.63	B	900	.60	A
	NB Off (toll)	1	1,500	400	.27	A	580	.39	A
SR 241 at Del Cerro	SB On	1	1,500	330	.22	A	420	.28	A
	NB On	1	1,500	170	.11	A	270	.18	A
	SB Off	1	1,500	330	.22	A	120	.08	A
	NB Off	1	1,500	280	.19	A	440	.29	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table E-24
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	220	.20	A	220	.20	A
	SB Loop On	1	1,080	640	.59	A	730	.68	B
	NB Direct On	1	1,500	1,180	.79	C	650	.43	A
	NB Loop On	1	1,500	1,240	.83	D	470	.31	A
	SB Off	2	3,000	1,550	.52	A	2,180	.73	C
	NB Off	1	1,500	260	.17	A	890	.59	A
I-5 at La Paz	SB Direct On	1	1,080	150	.14	A	250	.23	A
	SB Loop On	1	1,080	240	.22	A	430	.40	A
	NB Direct On	1	1,500	620	.41	A	260	.17	A
	NB Loop On	1	1,080	340	.31	A	390	.36	A
	SB Off	1	1,500	760	.51	A	1,070	.71	C
	NB Off	1	1,500	680	.45	A	700	.47	A
I-5 at Oso	SB Direct On	1	1,080	310	.29	A	580	.54	A
	SB Loop On	1	1,080	550	.51	A	340	.31	A
	NB Direct On	1	1,500	1,110	.74	C	730	.49	A
	NB Loop On	1	1,500	200	.13	A	570	.38	A
	SB Off	1	1,500	970	.65	B	1,690	1.13	F
	NB Off	1	1,500	610	.41	A	880	.59	A
I-5 at Crown Valley ¹	SB On	1	1,800	660	.37	A	1,000	.56	A
	NB Direct On	1	1,500	1,570	1.05	F	1,760	1.17	F
	NB Loop On	1	1,080	680	.63	B	960	.89	D
	SB Off	2	2,250	1,960	.87	D	3,450	1.53	F
	NB Off	1	1,500	1,230	.82	D	610	.41	A
I-5 at Avery	SB On	1	1,080	470	.44	A	490	.45	A
	NB On	1	1,500	960	.64	B	930	.62	B
	SB Off	1	1,500	810	.54	A	1,150	.77	C
	NB Off	1	1,500	700	.47	A	790	.53	A
I-5 at Junipero Serra	SB On	1	1,080	610	.56	A	570	.53	A
	NB On	1	1,080	1,460	1.35	F	920	.85	D
	SB Off	1	1,500	800	.53	A	1,220	.81	D
	NB Off	1	1,500	400	.27	A	540	.36	A
I-5 at Ortega ¹	SB On	1	1,500	390	.26	A	480	.32	A
	NB On	1	1,500	2,070	1.38	F	1,970	1.31	F
	SB Off	2	2,250	2,040	.91	E	2,440	1.08	F
	NB Off	1	1,500	720	.48	A	730	.49	A
I-5 at Camino Capistrano	SB On	1	1,500	630	.42	A	560	.37	A
	NB On	1	1,500	860	.57	A	560	.37	A
	SB Off	1	1,500	1,000	.67	B	1,610	1.07	F
	NB Off	1	1,500	540	.36	A	770	.51	A
I-5 at Stonehill	NB On	1	1,500	1,030	.69	B	1,820	1.21	F

Table E-24 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-ULTIMATE ALTERNATIVE (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,030	1.14	F	1,240	1.38	F
	SB Loop On	1	900	170	.19	A	110	.12	A
	NB Direct On	1	900	430	.48	A	190	.21	A
	NB Loop On	1	900	390	.43	A	310	.34	A
	SB Off	2	2,250	800	.36	A	1,060	.47	A
	NB Off	2	2,250	120	.05	A	250	.11	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	820	.55	A
	NB Direct On	1	1,500	950	.63	B	760	.51	A
	NB Loop On	1	900	380	.42	A	370	.41	A
	SB Off	1	1,500	1,060	.71	C	1,160	.77	C
	NB Off	1	1,500	550	.37	A	860	.57	A
I-5 at Hermosa	SB On	1	1,080	30	.03	A	20	.02	A
	NB Direct On	1	1,500	1,320	.88	D	1,080	.72	C
	NB Loop On	1	1,080	160	.15	A	250	.23	A
	SB Off	1	1,500	1,260	.84	D	1,390	.93	E
	NB Off	1	1,500	60	.04	A	50	.03	A
I-5 at Pico	SB On	1	1,500	130	.09	A	730	.49	A
	NB On	1	1,500	3,280	2.19	F	3,340	2.23	F
	SB Off	2	2,250	2,940	1.31	F	3,410	1.52	F
	NB Off	1	1,500	590	.39	A	290	.19	A
I-5 at El Camino Real	SB On	1	1,500	460	.31	A	520	.35	A
	NB Off	1	1,500	60	.04	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	150	.10	A	220	.15	A
	SB Off	1	1,500	160	.11	A	120	.08	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	200	.13	A	120	.08	A
	NB On	1	1,500	1,250	.83	D	810	.54	A
	SB Off	1	1,500	750	.50	A	1,050	.70	B
	NB Off	1	1,500	220	.15	A	150	.10	A
SR 241 at Santa Margarita	SB On	1	1,500	230	.15	A	260	.17	A
	NB On	1	1,500	4,000	2.67	F	2,200	1.47	F
	SB Off	1	1,500	1,540	1.03	F	2,930	1.95	F
	NB Off	1	1,500	130	.09	A	60	.04	A
SR 241 at Antonio	SB On	1	1,500	230	.15	A	300	.20	A
	NB On	1	1,500	2,500	1.67	F	610	.41	A
	SB Off	1	1,500	840	.56	A	1,680	1.12	F
	NB Off	1	1,500	380	.25	A	190	.13	A

Table E-24 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-ULTIMATE ALTERNATIVE (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	300	.20	A	670	.45	A
	NB On	1	1,500	900	.60	A	180	.12	A
	SB Off	1	1,500	130	.09	A	570	.38	A
	NB Off	1	1,500	310	.21	A	480	.32	A
SR 241 at Crown Valley	SB On	1	1,500	740	.49	A	480	.32	A
	NB On	1	1,500	1,070	.71	C	280	.19	A
	SB Off	1	1,500	280	.19	A	1,080	.72	C
	NB Off	1	1,500	650	.43	A	610	.41	A
SR 241 at Ortega	SB On	1	1,500	990	.66	B	600	.40	A
	NB Direct On	1	2,250	1,800	.80	C	860	.38	A
	NB Loop On	1	1,500	280	.19	A	150	.10	A
	SB Off	1	2,250	610	.27	A	1,810	.80	C
	NB Off	1	1,500	460	.31	A	930	.62	B
SR 241 at Hermosa	SB On	1	1,500	770	.51	A	870	.58	A
	NB Direct On	1	1,500	710	.47	A	730	.49	A
	NB Loop On	1	1,500	250	.17	A	490	.33	A
	SB Off	1	1,500	1,190	.79	C	1,090	.73	C
	NB Off	1	1,500	620	.41	A	670	.45	A
SR 241 at Del Cerro	SB On	1	1,500	250	.17	A	340	.23	A
	NB On	1	1,500	250	.17	A	390	.26	A
	SB Off	1	1,500	520	.35	A	230	.15	A
	NB Off	1	1,500	140	.09	A	340	.23	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	690	.64	B	840	.78	C
	NB Direct On	1	1,500	1,470	.98	E	730	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	510	.34	A
	SB Off	2	3,000	1,660	.55	A	2,450	.82	D
	NB Off	1	1,500	220	.15	A	930	.62	B
I-5 at La Paz	SB Direct On	1	1,080	150	.14	A	230	.21	A
	SB Loop On	1	1,080	390	.36	A	430	.40	A
	NB Direct On	1	1,500	660	.44	A	260	.17	A
	NB Loop On	1	1,080	440	.41	A	360	.33	A
	SB Off	1	1,500	700	.47	A	1,200	.80	C
	NB Off	1	1,500	1,040	.69	B	660	.44	A
I-5 at Oso	SB Direct On	1	1,080	450	.42	A	820	.76	C
	SB Loop On	1	1,080	690	.64	B	360	.33	A
	NB Direct On	1	1,500	1,260	.84	D	750	.50	A
	NB Loop On	1	1,500	350	.23	A	620	.41	A
	SB Off	1	1,500	1,150	.77	C	1,620	1.08	F
	NB Off	1	1,500	800	.53	A	1,070	.71	C
I-5 at Crown Valley ¹	SB On	1	1,800	860	.48	A	1,040	.58	A
	NB Direct On	1	1,500	1,490	.99	E	1,620	1.08	F
	NB Loop On	1	1,080	720	.67	B	970	.90	D
	SB Off	2	2,250	1,990	.88	D	3,070	1.36	F
	NB Off	1	1,500	1,280	.85	D	840	.56	A
I-5 at Avery	SB On	1	1,080	610	.56	A	510	.47	A
	NB On	1	1,500	740	.49	A	860	.57	A
	SB Off	1	1,500	680	.45	A	960	.64	B
	NB Off	1	1,500	730	.49	A	830	.55	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	540	.50	A
	NB On	1	1,080	1,190	1.10	F	970	.90	D
	SB Off	1	1,500	830	.55	A	1,150	.77	C
	NB Off	1	1,500	380	.25	A	330	.22	A
I-5 at Ortega ¹	SB On	1	1,500	470	.31	A	540	.36	A
	NB On (a)	1	1,500	2,080	1.39	F	1,980	1.32	F
	SB Off	2	2,250	2,150	.96	E	2,220	.99	E
	NB Off	1	1,500	830	.55	A	750	.50	A
I-5 at Camino Capistrano	SB On	1	1,500	650	.43	A	590	.39	A
	NB On	1	1,500	890	.59	A	470	.31	A
	SB Off (a)	1	1,500	1,020	.68	B	1,530	1.02	F
	NB Off	1	1,500	590	.39	A	790	.53	A
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,680	1.12	F

Table E-25 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)										
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour			
				Volume	V/C	LOS	Volume	V/C	LOS	
I-5 at PCH/Las Ramblas	SB Direct On	1	900	850	.94	E	1,270	1.41	F	
	SB Loop On	1	900	200	.22	A	150	.17	A	
	NB Direct On	1	900	310	.34	A	190	.21	A	
	NB Loop On	1	900	390	.43	A	310	.34	A	
	SB Off	2	2,250	850	.38	A	960	.43	A	
	NB Off	2	2,250	160	.07	A	220	.10	A	
I-5 at Estrella	SB On	1	1,500	760	.51	A	760	.51	A	
	NB Direct On	1	1,500	1,090	.73	C	1,020	.68	B	
	NB Loop On	1	900	380	.42	A	380	.42	A	
	SB Off	1	1,500	1,190	.79	C	1,300	.87	D	
	NB Off	1	1,500	500	.33	A	830	.55	A	
I-5 at Hermosa	SB On	1	1,080	460	.43	A	1,040	.96	E	
	NB Direct On	1	1,500	1,310	.87	D	860	.57	A	
	NB Loop On	1	1,080	140	.13	A	200	.19	A	
	SB Off	1	1,500	1,260	.84	D	1,540	1.03	F	
	NB Off	1	1,500	900	.60	A	610	.41	A	
I-5 at Pico	SB On (b)	1	1,500	680	.45	A	2,360	1.57	F	
	<i>With Mitigation</i>									
	SB Direct On	1	1,500	110	.07	A	450	.30	A	
	SB Loop On	1	1,500	570	.38	A	1,910	1.27	F	
	<i>With Mitigation</i>									
	NB On (b)	1	1,500	1,280	.85	D	1,560	1.04	F	
	With Mitigation	2	1,800	1,280	.71	C	1,560	.87	D	
	SB Off	2	2,250	1,590	.71	C	1,170	.52	A	
	NB Off (b)	1	1,500	1,630	1.09	F	1,910	1.27	F	
With Mitigation	2	2,250	1,630	.72	C	1,910	.85	D		
I-5 at El Camino Real	SB On	1	1,500	80	.05	A	80	.05	A	
	NB On	1	1,500	610	.41	A	480	.32	A	
	SB Off	1	1,500	540	.36	A	930	.62	B	
	NB Off	1	1,500	60	.04	A	210	.14	A	
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A	
	NB On	1	1,500	120	.08	A	220	.15	A	
	SB Off	1	1,500	160	.11	A	130	.09	A	
	NB Off	1	1,500	300	.20	A	180	.12	A	
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A	
	NB On	1	1,500	250	.17	A	570	.38	A	
	SB Off	1	1,500	380	.25	A	320	.21	A	
	NB Off	1	1,500	330	.22	A	120	.08	A	
SR 73 at Greenfield	SB On	1	1,500	380	.25	A	260	.17	A	
	NB On	1	1,500	1,110	.74	C	610	.41	A	
	SB Off	1	1,500	570	.38	A	860	.57	A	
	NB Off	1	1,500	340	.23	A	350	.23	A	

Table E-25 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Santa Margarita	SB On	1	1,500	190	.13	A	130	.09	A
	NB On	1	1,500	3,140	2.09	F	1,180	.79	C
	SB Off	1	1,500	910	.61	B	2,120	1.41	F
	NB Off	1	1,500	80	.05	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	190	.13	A	240	.16	A
	NB On (toll)	1	1,500	2,150	1.43	F	400	.27	A
	SB Off (toll)	1	1,500	320	.21	A	1,290	.86	D
	NB Off	1	1,500	230	.15	A	170	.11	A
SR 241 at Oso	SB On	1	1,500	380	.25	A	530	.35	A
	NB On (toll)	1	1,500	820	.55	A	100	.07	A
	SB Off (toll)	1	1,500	90	.06	A	540	.36	A
	NB Off	1	1,500	460	.31	A	470	.31	A
SR 241 at C Street	SB On (toll)	1	1,500	70	.05	A	40	.03	A
	NB On	1	1,500	1,400	.93	E	580	.39	A
	SB Off	1	1,500	340	.23	A	1,230	.82	D
	NB Off (toll)	1	1,500	60	.04	A	110	.07	A
SR 241 at Ortega	SB On (toll)	1	1,500	730	.49	A	630	.42	A
	NB Direct On	1	1,500	170	.11	A	30	.02	A
	NB Loop On	1	1,500	160	.11	A	110	.07	A
	SB Off	1	1,500	120	.08	A	290	.19	A
	NB Off (toll)	1	1,500	490	.33	A	730	.49	A
SR 241 at Hermosa	NB On (from WB Hermosa)	2	2,250	1770	.79	C	1600	.71	C
	NB On (from EB Hermosa)	1	1,500	1,290	.86	D	1,010	.67	B
	SB Off (to WB Hermosa)	2	2,250	1,240	.55	A	1,930	.86	D
	SB Off (to EB Hermosa)	1	1,500	550	.37	A	1,220	.81	D

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	670	.62	B	840	.78	C
	NB Direct On	1	1,500	1,460	.97	E	710	.47	A
	NB Loop On	1	1,500	1,600	1.07	F	500	.33	A
	SB Off	2	3,000	1,650	.55	A	2,450	.82	D
	NB Off	1	1,500	200	.13	A	890	.59	A
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	230	.21	A
	SB Loop On	1	1,080	380	.35	A	430	.40	A
	NB Direct On	1	1,500	640	.43	A	220	.15	A
	NB Loop On	1	1,080	440	.41	A	320	.30	A
	SB Off	1	1,500	680	.45	A	1,140	.76	C
	NB Off	1	1,500	1,070	.71	C	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	790	.73	C
	SB Loop On	1	1,080	660	.61	B	360	.33	A
	NB Direct On	1	1,500	1,250	.83	D	750	.50	A
	NB Loop On	1	1,500	260	.17	A	660	.44	A
	SB Off	1	1,500	1,100	.73	C	1,560	1.04	F
	NB Off	1	1,500	790	.53	A	1,010	.67	B
I-5 at Crown Valley ¹	SB On	1	1,800	740	.41	A	1,030	.57	A
	NB Direct On	1	1,500	1,490	.99	E	1,590	1.06	F
	NB Loop On	1	1,080	720	.67	B	900	.83	D
	SB Off	2	2,250	1,940	.86	D	3,060	1.36	F
	NB Off	1	1,500	1,260	.84	D	660	.44	A
I-5 at Avery	SB On	1	1,080	470	.44	A	450	.42	A
	NB On	1	1,500	890	.59	A	820	.55	A
	SB Off	1	1,500	700	.47	A	1,180	.79	C
	NB Off	1	1,500	680	.45	A	750	.50	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	610	.56	A
	NB On	1	1,080	1,370	1.27	F	920	.85	D
	SB Off	1	1,500	790	.53	A	1,220	.81	D
	NB Off	1	1,500	420	.28	A	490	.33	A
I-5 at Ortega ¹	SB On	1	1,500	380	.25	A	460	.31	A
	NB On (a)	1	1,500	2,170	1.45	F	2,000	1.33	F
	SB Off	2	2,250	2,100	.93	E	2,360	1.05	F
	NB Off	1	1,500	760	.51	A	700	.47	A
I-5 at Camino Capistrano	SB On	1	1,500	610	.41	A	540	.36	A
	NB On	1	1,500	880	.59	A	470	.31	A
	SB Off (a)	1	1,500	960	.64	B	1,580	1.05	F
	NB Off	1	1,500	500	.33	A	710	.47	A
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,630	1.09	F

Table E-26 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)										
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour			
				Volume	V/C	LOS	Volume	V/C	LOS	
I-5 at PCH/Las Ramblas	SB Direct On	1	900	980	1.09	F	1,200	1.33	F	
	SB Loop On	1	900	160	.18	A	120	.13	A	
	NB Direct On	1	900	300	.33	A	150	.17	A	
	NB Loop On	1	900	340	.38	A	230	.26	A	
	SB Off	2	2,250	730	.32	A	860	.38	A	
	NB Off	2	2,250	130	.06	A	200	.09	A	
I-5 at Estrella	SB On	1	1,500	750	.50	A	780	.52	A	
	NB Direct On	1	1,500	890	.59	A	800	.53	A	
	NB Loop On	1	900	340	.38	A	360	.40	A	
	SB Off	1	1,500	1,030	.69	B	1,110	.74	C	
	NB Off	1	1,500	510	.34	A	830	.55	A	
I-5 at Hermosa	SB On	1	1,080	430	.40	A	1,000	.93	E	
	NB Direct On	1	1,500	1,210	.81	D	740	.49	A	
	NB Loop On	1	1,080	140	.13	A	190	.18	A	
	SB Off	1	1,500	1,190	.79	C	1,320	.88	D	
	NB Off	1	1,500	900	.60	A	590	.39	A	
I-5 at Pico	SB On (b)	1	1,500	630	.42	A	2,090	1.39	F	
	<i>With Mitigation</i>									
	SB Direct On	1	1,500	160	.11	A	550	.37	A	
	SB Loop On	1	1,500	470	.31	A	1,540	1.03	F	
	<i>With Mitigation</i>									
	NB On (b)	1	1,500	1,220	.81	D	1,640	1.09	F	
	With Mitigation	2	1,800	1,220	.68	B	1,640	.91	E	
	SB Off	2	2,250	1,500	.67	B	1,050	.47	A	
	NB Off (b)	1	1,500	1,520	1.01	F	1,700	1.13	F	
With Mitigation	2	2,250	1,520	.68	B	1,700	.76	C		
I-5 at El Camino Real	SB On	1	1,500	90	.06	A	100	.07	A	
	NB On	1	1,500	560	.37	A	430	.29	A	
	SB Off	1	1,500	440	.29	A	850	.57	A	
	NB Off	1	1,500	80	.05	A	260	.17	A	
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A	
	NB On	1	1,500	120	.08	A	220	.15	A	
	SB Off	1	1,500	160	.11	A	120	.08	A	
	NB Off	1	1,500	300	.20	A	180	.12	A	
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A	
	NB On	1	1,500	250	.17	A	570	.38	A	
	SB Off	1	1,500	380	.25	A	320	.21	A	
	NB Off	1	1,500	330	.22	A	120	.08	A	
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	200	.13	A	
	NB On	1	1,500	1,160	.77	C	620	.41	A	
	SB Off	1	1,500	580	.39	A	980	.65	B	
	NB Off	1	1,500	280	.19	A	200	.13	A	

Table E-26 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Santa Margarita	SB On	1	1,500	160	.11	A	140	.09	A
	NB On	1	1,500	3,130	2.09	F	1,190	.79	C
	SB Off	1	1,500	920	.61	B	2,110	1.41	F
	NB Off	1	1,500	80	.05	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	180	.12	A	220	.15	A
	NB On (toll)	1	1,500	2,170	1.45	F	410	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,220	.81	D
	NB Off	1	1,500	220	.15	A	180	.12	A
SR 241 at Oso	SB On	1	1,500	330	.22	A	440	.29	A
	NB On (toll)	1	1,500	820	.55	A	100	.07	A
	SB Off (toll)	1	1,500	90	.06	A	560	.37	A
	NB Off	1	1,500	400	.27	A	420	.28	A
SR 241 at C Street	SB On (toll)	1	1,500	60	.04	A	20	.01	A
	NB On	1	1,500	1,370	.91	E	580	.39	A
	SB Off	1	1,500	350	.23	A	1,190	.79	C
	NB Off (toll)	1	1,500	20	.01	A	90	.06	A
SR 241 at Ortega	SB On (toll)	1	1,500	240	.16	A	170	.11	A
	NB Direct On	1	1,500	140	.09	A	30	.02	A
	NB Loop On	1	1,500	230	.15	A	200	.13	A
	SB Off	1	1,500	160	.11	A	390	.26	A
	NB Off (toll)	1	1,500	160	.11	A	230	.15	A
SR 241 at Hermosa	NB On (from WB Hermosa)	1	1,500	1350	.90	D	950	.63	B
	NB On (from EB Hermosa)	1	1,500	900	.60	A	780	.52	A
	SB Off (to WB Hermosa)	1	1,500	660	.44	A	1480	.99	E
	SB Off (to EB Hermosa)	1	1,500	470	.31	A	700	.47	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	180	.17	A	200	.19	A
	SB Loop On	1	1,080	720	.67	B	890	.82	D
	NB Direct On	1	1,500	1,440	.96	E	700	.47	A
	NB Loop On	1	1,500	1,640	1.09	F	500	.33	A
	SB Off	2	3,000	1,640	.55	A	2,430	.81	D
	NB Off	1	1,500	230	.15	A	960	.64	B
I-5 at La Paz	SB Direct On	1	1,080	120	.11	A	230	.21	A
	SB Loop On	1	1,080	440	.41	A	430	.40	A
	NB Direct On	1	1,500	640	.43	A	210	.14	A
	NB Loop On	1	1,080	520	.48	A	340	.31	A
	SB Off	1	1,500	700	.47	A	1,160	.77	C
	NB Off	1	1,500	1,080	.72	C	700	.47	A
I-5 at Oso	SB Direct On	1	1,080	420	.39	A	800	.74	C
	SB Loop On	1	1,080	750	.69	B	380	.35	A
	NB Direct On	1	1,500	1,250	.83	D	750	.50	A
	NB Loop On	1	1,500	330	.22	A	660	.44	A
	SB Off	1	1,500	1,130	.75	C	1,610	1.07	F
	NB Off	1	1,500	800	.53	A	1,140	.76	C
I-5 at Crown Valley ¹	SB On	1	1,800	940	.52	A	1,090	.61	B
	NB Direct On	1	1,500	1,390	.93	E	1,590	1.06	F
	NB Loop On	1	1,080	720	.67	B	970	.90	D
	SB Off	2	2,250	1,970	.88	D	2,970	1.32	F
	NB Off	1	1,500	1,340	.89	D	950	.63	B
I-5 at Avery	SB On	1	1,080	670	.62	B	480	.44	A
	NB On	1	1,500	790	.53	A	850	.57	A
	SB Off	1	1,500	660	.44	A	900	.60	A
	NB Off	1	1,500	690	.46	A	830	.55	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	570	.53	A
	NB On	1	1,080	1,190	1.10	F	1,120	1.04	F
	SB Off	1	1,500	840	.56	A	1,160	.77	C
	NB Off	1	1,500	330	.22	A	320	.21	A
I-5 at Ortega ¹	SB On	1	1,500	610	.41	A	710	.47	A
	NB On	1	1,500	1,960	1.31	F	1,800	1.20	F
	SB Off	2	2,250	2,130	.95	E	2,340	1.04	F
	NB Off	1	1,500	1,000	.67	B	850	.57	A
I-5 at Camino Capistrano	SB On	1	1,500	680	.45	A	620	.41	A
	NB On	1	1,500	840	.56	A	500	.33	A
	SB Off	1	1,500	1,010	.67	B	1,470	.98	E
	NB Off	1	1,500	660	.44	A	750	.50	A
I-5 at Stonehill	NB On	1	1,500	970	.65	B	1,580	1.05	F

Table E-27 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	770	.86	D	1,330	1.48	F
	SB Loop On	1	900	200	.22	A	300	.33	A
	NB Direct On	1	900	300	.33	A	170	.19	A
	NB Loop On	1	900	360	.40	A	250	.28	A
	SB Off	2	2,250	810	.36	A	860	.38	A
	NB Off	2	2,250	260	.12	A	230	.10	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	860	.57	A
	NB Direct On	1	1,500	1,270	.85	D	1,130	.75	C
	NB Loop On	1	900	340	.38	A	370	.41	A
	SB Off	1	1,500	1,370	.91	E	1,550	1.03	F
	NB Off	1	1,500	470	.31	A	830	.55	A
I-5 at Hermosa	SB On	1	1,080	190	.18	A	320	.30	A
	NB Direct On	1	1,500	1,560	1.04	F	1,450	.97	E
	NB Loop On	1	1,080	160	.15	A	250	.23	A
	SB Off	1	1,500	1,450	.97	E	2,010	1.34	F
	NB Off	1	1,500	330	.22	A	180	.12	A
I-5 at Pico	SB On	1	1,500	620	.41	A	1,490	.99	E
	NB On	1	1,500	1,450	.97	E	1,430	.95	E
	SB Off	2	2,250	1,540	.68	B	1,210	.54	A
	NB Off	1	1,500	1,000	.67	B	1,100	.73	C
I-5 at El Camino Real	SB On	1	1,500	90	.06	A	220	.15	A
	NB On	1	1,500	570	.38	A	410	.27	A
	SB Off	1	1,500	420	.28	A	890	.59	A
	NB Off	1	1,500	80	.05	A	200	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	130	.09	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	370	.25	A	240	.16	A
	NB On	1	1,500	1,140	.76	C	620	.41	A
	SB Off	1	1,500	580	.39	A	930	.62	B
	NB Off	1	1,500	300	.20	A	330	.22	A
SR 241 at Santa Margarita	SB On	1	1,500	90	.06	A	100	.07	A
	NB On	1	1,500	3,130	2.09	F	1,200	.80	C
	SB Off	1	1,500	910	.61	B	2,120	1.41	F
	NB Off	1	1,500	60	.04	A	40	.03	A
SR 241 at Antonio	SB On	1	1,500	100	.07	A	170	.11	A
	NB On (toll)	1	1,500	2,250	1.50	F	410	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,290	.86	D
	NB Off	1	1,500	180	.12	A	120	.08	A

Table E-27 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	200	.13	A	490	.33	A
	NB On (toll)	1	1,500	920	.61	B	100	.07	A
	SB Off (toll)	1	1,500	90	.06	A	640	.43	A
	NB Off	1	1,500	360	.24	A	290	.19	A
SR 241 at C Street	SB On (toll)	1	1,500	20	.01	A	10	.01	A
	NB On	2	2,250	1,670	.74	C	770	.34	A
	SB Off	1	1,500	430	.29	A	1,350	.90	D
	NB Off (toll)	1	1,500	10	.01	A	30	.02	A
SR 241 at Ortega	NB On (from WB Ortega)	1	1,500	220	.15	A	40	.03	A
	NB On (from EB Ortega)	1	1,500	540	.36	A	160	.11	A
	SB Off (to WB Ortega)	1	1,500	140	.09	A	540	.36	A
	SB Off (to EB Ortega)	1	1,500	10	.01	A	160	.11	A
¹ Congestion Management Program (CMP) freeway interchange location. Abbreviations: NB – northbound EB – eastbound SB – southbound WB – westbound									

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	180	.17	A	210	.19	A
	SB Loop On	1	1,080	680	.63	B	840	.78	C
	NB Direct On	1	1,500	1,450	.97	E	700	.47	A
	NB Loop On	1	1,500	1,610	1.07	F	470	.31	A
	SB Off	2	3,000	1,650	.55	A	2,410	.80	C
	NB Off	1	1,500	200	.13	A	900	.60	A
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	230	.21	A
	SB Loop On	1	1,080	400	.37	A	430	.40	A
	NB Direct On	1	1,500	650	.43	A	220	.15	A
	NB Loop On	1	1,080	470	.44	A	330	.31	A
	SB Off	1	1,500	670	.45	A	1,110	.74	C
	NB Off	1	1,500	1,100	.73	C	660	.44	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	770	.71	C
	SB Loop On	1	1,080	680	.63	B	370	.34	A
	NB Direct On	1	1,500	1,240	.83	D	740	.49	A
	NB Loop On	1	1,500	270	.18	A	650	.43	A
	SB Off	1	1,500	1,090	.73	C	1,560	1.04	F
	NB Off	1	1,500	790	.53	A	1,010	.67	B
I-5 at Crown Valley ¹	SB On	1	1,800	760	.42	A	1,040	.58	A
	NB Direct On	1	1,500	1,470	.98	E	1,560	1.04	F
	NB Loop On	1	1,080	720	.67	B	900	.83	D
	SB Off	2	2,250	1,940	.86	D	3,040	1.35	F
	NB Off	1	1,500	1,290	.86	D	680	.45	A
I-5 at Avery	SB On	1	1,080	480	.44	A	420	.39	A
	NB On	1	1,500	930	.62	B	810	.54	A
	SB Off	1	1,500	700	.47	A	1,110	.74	C
	NB Off	1	1,500	650	.43	A	740	.49	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	600	.56	A
	NB On	1	1,080	1,300	1.20	F	990	.92	E
	SB Off	1	1,500	790	.53	A	1,270	.85	D
	NB Off	1	1,500	400	.27	A	490	.33	A
I-5 at Ortega ¹	SB On	1	1,500	410	.27	A	510	.34	A
	NB On	1	1,500	2,130	1.42	F	1,870	1.25	F
	SB Off	2	2,250	2,090	.93	E	2,360	1.05	F
	NB Off	1	1,500	810	.54	A	720	.48	A
I-5 at Camino Capistrano	SB On	1	1,500	650	.43	A	560	.37	A
	NB On	1	1,500	940	.63	B	500	.33	A
	SB Off	1	1,500	960	.64	B	1,430	.95	E
	NB Off	1	1,500	660	.44	A	740	.49	A
I-5 at Stonehill	NB On	1	1,500	980	.65	B	1,580	1.05	F

Table E-28 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	960	1.07	F	1,170	1.30	F
	SB Loop On	1	900	160	.18	A	220	.24	A
	NB Direct On	1	900	290	.32	A	150	.17	A
	NB Loop On	1	900	320	.36	A	220	.24	A
	SB Off	2	2,250	740	.33	A	880	.39	A
	NB Off	2	2,250	110	.05	A	190	.08	A
I-5 at Estrella	SB On	1	1,500	710	.47	A	690	.46	A
	NB Direct On	1	1,500	910	.61	B	830	.55	A
	NB Loop On	1	900	370	.41	A	370	.41	A
	SB Off	1	1,500	1,130	.75	C	1,300	.87	D
	NB Off	1	1,500	480	.32	A	780	.52	A
I-5 at Hermosa	SB On	1	1,080	380	.35	A	980	.91	E
	NB Direct On	1	1,500	1,160	.77	C	840	.56	A
	NB Loop On	1	1,080	120	.11	A	210	.19	A
	SB Off	1	1,500	1,220	.81	D	1,250	.83	D
	NB Off	1	1,500	700	.47	A	530	.35	A
I-5 at Pico	SB On	1	1,500	850	.57	A	1,400	.93	E
	NB On	1	1,500	1,370	.91	E	1,610	1.07	F
	SB Off	2	2,250	1,410	.63	B	1,100	.49	A
	NB Off	1	1,500	960	.64	B	1,360	.91	E
I-5 at El Camino Real	SB On	1	1,500	80	.05	A	150	.10	A
	NB On	1	1,500	610	.41	A	390	.26	A
	SB Off	1	1,500	470	.31	A	870	.58	A
	NB Off	1	1,500	100	.07	A	200	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	120	.08	A	220	.15	A
	SB Off	1	1,500	160	.11	A	120	.08	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	190	.13	A
	NB On	1	1,500	1,110	.74	C	630	.42	A
	SB Off	1	1,500	580	.39	A	920	.61	B
	NB Off	1	1,500	280	.19	A	190	.13	A
SR 241 at Santa Margarita	SB On	1	1,500	120	.08	A	100	.07	A
	NB On	1	1,500	3,140	2.09	F	1,200	.80	C
	SB Off	1	1,500	910	.61	B	2,120	1.41	F
	NB Off	1	1,500	60	.04	A	40	.03	A
SR 241 at Antonio	SB On	1	1,500	130	.09	A	180	.12	A
	NB On (toll)	1	1,500	2,190	1.46	F	410	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,260	.84	D
	NB Off	1	1,500	180	.12	A	140	.09	A

Table E-28 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	250	.17	A	450	.30	A
	NB On (toll)	1	1,500	890	.59	A	100	.07	A
	SB Off (toll)	1	1,500	90	.06	A	590	.39	A
	NB Off	1	1,500	350	.23	A	320	.21	A
SR 241 at C Street	SB On (toll)	1	1,500	40	.03	A	10	.01	A
	NB On	2	2,250	1,530	.68	B	650	.29	A
	SB Off	1	1,500	380	.25	A	1,320	.88	D
	NB Off (toll)	1	1,500	10	.01	A	50	.03	A
SR 241 at Ortega	NB On (from WB Ortega)	1	1,500	180	.12	A	30	.02	A
	NB On (from EB Ortega)	1	1,500	900	.60	A	640	.43	A
	SB Off (to WB Ortega)	1	1,500	390	.26	A	890	.59	A
	SB Off (to EB Ortega)	1	1,500	10	.01	A	130	.09	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound EB – eastbound
 SB – southbound WB – westbound

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	680	.63	B	830	.77	C
	NB Direct On	1	1,500	1,490	.99	E	740	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	520	.35	A
	SB Off	2	3,000	1,670	.56	A	2,500	.83	D
	NB Off	1	1,500	220	.15	A	920	.61	B
I-5 at La Paz	SB Direct On	1	1,080	150	.14	A	220	.20	A
	SB Loop On	1	1,080	360	.33	A	430	.40	A
	NB Direct On	1	1,500	670	.45	A	250	.17	A
	NB Loop On	1	1,080	410	.38	A	340	.31	A
	SB Off	1	1,500	700	.47	A	1,150	.77	C
	NB Off	1	1,500	1,120	.75	C	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	450	.42	A	820	.76	C
	SB Loop On	1	1,080	660	.61	B	360	.33	A
	NB Direct On	1	1,500	1,290	.86	D	750	.50	A
	NB Loop On	1	1,500	380	.25	A	590	.39	A
	SB Off	1	1,500	1,120	.75	C	1,710	1.14	F
	NB Off	1	1,500	800	.53	A	1,040	.69	B
I-5 at Crown Valley ¹	SB On	1	1,800	870	.48	A	1,060	.59	A
	NB Direct On	1	1,500	1,490	.99	E	1,620	1.08	F
	NB Loop On	1	1,080	720	.67	B	980	.91	E
	SB Off	2	2,250	2,020	.90	D	3,060	1.36	F
	NB Off	1	1,500	1,300	.87	D	810	.54	A
I-5 at Avery	SB On	1	1,080	590	.55	A	560	.52	A
	NB On	1	1,500	720	.48	A	830	.55	A
	SB Off	1	1,500	690	.46	A	960	.64	B
	NB Off	1	1,500	760	.51	A	840	.56	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	540	.50	A
	NB On	1	1,080	1,170	1.08	F	930	.86	D
	SB Off	1	1,500	830	.55	A	1,040	.69	B
	NB Off	1	1,500	390	.26	A	340	.23	A
I-5 at Ortega ¹	SB On	1	1,500	440	.29	A	550	.37	A
	NB On (a)	1	1,500	2,070	1.38	F	2,000	1.33	F
	SB Off (a)	2	2,250	2,160	.96	E	2,420	1.08	F
	NB Off	1	1,500	830	.55	A	740	.49	A
I-5 at Camino Capistrano	SB On	1	1,500	660	.44	A	610	.41	A
	NB On	1	1,500	860	.57	A	490	.33	A
	SB Off (a)	1	1,500	1,020	.68	B	1,540	1.03	F
	NB Off	1	1,500	560	.37	A	810	.54	A
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,730	1.15	F

Table E-29 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	900	1.00	E	1,290	1.43	F
	SB Loop On	1	900	210	.23	A	160	.18	A
	NB Direct On	1	900	360	.40	A	210	.23	A
	NB Loop On	1	900	400	.44	A	350	.39	A
	SB Off	2	2,250	860	.38	A	1,000	.44	A
	NB Off	2	2,250	170	.08	A	250	.11	A
I-5 at Estrella	SB On	1	1,500	780	.52	A	870	.58	A
	NB Direct On	1	1,500	1,090	.73	C	900	.60	A
	NB Loop On	1	900	390	.43	A	370	.41	A
	SB Off	1	1,500	1,060	.71	C	1,360	.91	E
	NB Off	1	1,500	520	.35	A	870	.58	A
I-5 at Hermosa	SB On	1	1,080	20	.02	A	140	.13	A
	NB Direct On	1	1,500	1,430	.95	E	1,160	.77	C
	NB Loop On	1	1,080	150	.14	A	200	.19	A
	SB Off	1	1,500	1,420	.95	E	1,660	1.11	F
	NB Off	1	1,500	20	.01	A	30	.02	A
I-5 at Pico	SB On	1	1,500	140	.09	A	760	.51	A
	NB On (b)	1	1,500	3,610	2.41	F	3,320	2.21	F
	<i>With Mitigation</i>	2	1,800	3,610	2.01	F	3,320	1.84	F
	SB Off (b)	2	2,250	3,040	1.35	F	3,640	1.62	F
	<i>With Mitigation</i>	2	3,000	3,040	1.01	F	3,640	1.21	F
	NB Off	1	1,500	570	.38	A	390	.26	A
I-5 at El Camino Real	SB On	1	1,500	440	.29	A	510	.34	A
	NB Off	1	1,500	60	.04	A	200	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	130	.09	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	380	.25	A	270	.18	A
	NB On	1	1,500	1,090	.73	C	610	.41	A
	SB Off	1	1,500	560	.37	A	840	.56	A
	NB Off	1	1,500	340	.23	A	370	.25	A
SR 241 at Santa Margarita	SB On	1	1,500	200	.13	A	140	.09	A
	NB On	1	1,500	3,120	2.08	F	1,170	.78	C
	SB Off	1	1,500	910	.61	B	2,100	1.40	F
	NB Off	1	1,500	90	.06	A	60	.04	A
SR 241 at Antonio	SB On	1	1,500	200	.13	A	250	.17	A
	NB On (toll)	1	1,500	2,090	1.39	F	400	.27	A
	SB Off (toll)	1	1,500	320	.21	A	1,250	.83	D
	NB Off	1	1,500	230	.15	A	180	.12	A

Table E-29 (cont)
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-INITIAL AND ULTIMATE
ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	470	.31	A	590	.39	A
	NB On (toll)	1	1,500	800	.53	A	100	.07	A
	SB Off (toll)	1	1,500	90	.06	A	510	.34	A
	NB Off	1	1,500	560	.37	A	560	.37	A
SR 241 at C Street	SB On (toll)	1	1,500	70	.05	A	20	.01	A
	NB On	1	1,500	920	.61	B	420	.28	A
	SB Off	1	1,500	300	.20	A	900	.60	A
	NB Off (toll)	1	1,500	20	.01	A	60	.04	A
SR 241 at North River	SB On (toll)	1	1,500	810	.54	A	690	.46	A
	NB Direct On	1	1,500	730	.49	A	330	.22	A
	NB Loop On	1	1,500	190	.13	A	70	.05	A
	SB Off	1	1,500	230	.15	A	740	.49	A
	NB Off (toll)	1	1,500	600	.40	A	860	.57	A
SR 241 at Hermosa	SB On (toll)	1	1,500	450	.30	A	540	.36	A
	NB Direct On	1	1,500	640	.43	A	720	.48	A
	NB Loop On	1	1,500	350	.23	A	270	.18	A
	SB Off	1	1,500	760	.51	A	920	.61	B
	NB Off (toll)	1	1,500	360	.24	A	550	.37	A
SR 241 at Del Cerro	SB On	1	1,500	400	.27	A	510	.34	A
	NB On	1	1,500	190	.13	A	260	.17	A
	SB Off	1	1,500	440	.29	A	230	.15	A
	NB Off	1	1,500	250	.17	A	450	.30	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table E-30
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	680	.63	B	830	.77	C
	NB Direct On	1	1,500	1,470	.98	E	740	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	510	.34	A
	SB Off	2	3,000	1,650	.55	A	2,490	.83	D
	NB Off	1	1,500	200	.13	A	900	.60	A
I-5 at La Paz	SB Direct On	1	1,080	130	.12	A	230	.21	A
	SB Loop On	1	1,080	330	.31	A	430	.40	A
	NB Direct On	1	1,500	650	.43	A	250	.17	A
	NB Loop On	1	1,080	430	.40	A	340	.31	A
	SB Off	1	1,500	670	.45	A	1,110	.74	C
	NB Off	1	1,500	1,120	.75	C	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	800	.74	C
	SB Loop On	1	1,080	650	.60	A	360	.33	A
	NB Direct On	1	1,500	1,280	.85	D	740	.49	A
	NB Loop On	1	1,500	260	.17	A	620	.41	A
	SB Off	1	1,500	1,090	.73	C	1,600	1.07	F
	NB Off	1	1,500	780	.52	A	1,000	.67	B
I-5 at Crown Valley ¹	SB On	1	1,800	720	.40	A	1,020	.57	A
	NB Direct On	1	1,500	1,500	1.00	E	1,600	1.07	F
	NB Loop On	1	1,080	720	.67	B	900	.83	D
	SB Off	2	2,250	1,950	.87	D	3,060	1.36	F
	NB Off	1	1,500	1,280	.85	D	650	.43	A
I-5 at Avery	SB On	1	1,080	480	.44	A	470	.44	A
	NB On	1	1,500	900	.60	A	820	.55	A
	SB Off	1	1,500	710	.47	A	1,190	.79	C
	NB Off	1	1,500	720	.48	A	770	.51	A
I-5 at Junipero Serra	SB On	1	1,080	600	.56	A	610	.56	A
	NB On	1	1,080	1,340	1.24	F	910	.84	D
	SB Off	1	1,500	790	.53	A	1,130	.75	C
	NB Off	1	1,500	440	.29	A	530	.35	A
I-5 at Ortega ¹	SB On	1	1,500	360	.24	A	450	.30	A
	NB On (a)	1	1,500	2,140	1.43	F	1,980	1.32	F
	SB Off	2	2,250	2,100	.93	E	2,440	1.08	F
	NB Off	1	1,500	740	.49	A	680	.45	A
I-5 at Camino Capistrano	SB On	1	1,500	620	.41	A	530	.35	A
	NB On	1	1,500	850	.57	A	490	.33	A
	SB Off (a)	1	1,500	980	.65	B	1,580	1.05	F
	NB Off	1	1,500	540	.36	A	720	.48	A
I-5 at Stonehill	NB On (a)	1	1,500	1,010	.67	B	1,680	1.12	F

Table E-30 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,010	1.12	F	1,260	1.40	F
	SB Loop On	1	900	160	.18	A	90	.10	A
	NB Direct On	1	900	350	.39	A	170	.19	A
	NB Loop On	1	900	350	.39	A	270	.30	A
	SB Off	2	2,250	760	.34	A	930	.41	A
	NB Off	2	2,250	130	.06	A	250	.11	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	780	.52	A
	NB Direct On	1	1,500	910	.61	B	780	.52	A
	NB Loop On	1	900	360	.40	A	350	.39	A
	SB Off	1	1,500	1,020	.68	B	1,120	.75	C
	NB Off	1	1,500	520	.35	A	870	.58	A
I-5 at Hermosa	SB On	1	1,080	30	.03	A	100	.09	A
	NB Direct On	1	1,500	1,330	.89	D	980	.65	B
	NB Loop On	1	1,080	170	.16	A	220	.20	A
	SB Off	1	1,500	1,240	.83	D	1,400	.93	E
	NB Off	1	1,500	100	.07	A	60	.04	A
I-5 at Pico	SB On	1	1,500	180	.12	A	640	.43	A
	NB On (b)	1	1,500	3,420	2.28	F	3,320	2.21	F
	<i>With Mitigation</i>	2	1,800	3,420	1.90	F	3,320	1.84	F
	SB Off (b)	2	2,250	2,850	1.27	F	3,310	1.47	F
	<i>With Mitigation</i>	2	3,000	2,850	.95	E	3,310	1.10	F
	NB Off	1	1,500	530	.35	A	310	.21	A
I-5 at El Camino Real	SB On	1	1,500	450	.30	A	540	.36	A
	NB Off	1	1,500	80	.05	A	250	.17	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	130	.09	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basillone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	200	.13	A
	NB On	1	1,500	1,100	.73	C	620	.41	A
	SB Off	1	1,500	570	.38	A	870	.58	A
	NB Off	1	1,500	280	.19	A	210	.14	A
SR 241 at Santa Margarita	SB On	1	1,500	170	.11	A	130	.09	A
	NB On	1	1,500	3,150	2.10	F	1,190	.79	C
	SB Off	1	1,500	920	.61	B	2,100	1.40	F
	NB Off	1	1,500	80	.05	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	190	.13	A	220	.15	A
	NB On (toll)	1	1,500	2,120	1.41	F	400	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,220	.81	D
	NB Off	1	1,500	220	.15	A	180	.12	A

Table E-30 (cont)
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-INITIAL AND ULTIMATE
ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	420	.28	A	530	.35	A
	NB On (toll)	1	1,500	820	.55	A	100	.07	A
	SB Off (toll)	1	1,500	90	.06	A	530	.35	A
	NB Off	1	1,500	500	.33	A	510	.34	A
SR 241 at C Street	SB On (toll)	1	1,500	60	.04	A	20	.01	A
	NB On	1	1,500	840	.56	A	420	.28	A
	SB Off	1	1,500	300	.20	A	870	.58	A
	NB Off (toll)	1	1,500	20	.01	A	60	.04	A
SR 241 at North River	SB On (toll)	1	1,500	390	.26	A	410	.27	A
	NB Direct On	1	1,500	730	.49	A	330	.22	A
	NB Loop On	1	1,500	220	.15	A	90	.06	A
	SB Off	1	1,500	250	.17	A	720	.48	A
	NB Off (toll)	1	1,500	400	.27	A	470	.31	A
SR 241 at Hermosa	SB On (toll)	1	1,500	460	.31	A	570	.38	A
	NB Direct On	1	1,500	540	.36	A	540	.36	A
	NB Loop On	1	1,500	180	.12	A	140	.09	A
	SB Off	1	1,500	510	.34	A	660	.44	A
	NB Off (toll)	1	1,500	340	.23	A	560	.37	A
SR 241 at Del Cerro	SB On	1	1,500	410	.27	A	520	.35	A
	NB On	1	1,500	120	.08	A	110	.07	A
	SB Off	1	1,500	200	.13	A	110	.07	A
	NB Off	1	1,500	300	.20	A	470	.31	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table E-31
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	220	.20	A	220	.20	A
	SB Loop On	1	1,080	650	.60	A	730	.68	B
	NB Direct On	1	1,500	1,190	.79	C	630	.42	A
	NB Loop On	1	1,500	1,300	.87	D	470	.31	A
	SB Off	2	3,000	1,540	.51	A	2,150	.72	C
	NB Off	1	1,500	270	.18	A	890	.59	A
I-5 at La Paz	SB Direct On	1	1,080	150	.14	A	250	.23	A
	SB Loop On	1	1,080	230	.21	A	430	.40	A
	NB Direct On	1	1,500	610	.41	A	280	.19	A
	NB Loop On	1	1,080	410	.38	A	380	.35	A
	SB Off	1	1,500	750	.50	A	1,090	.73	C
	NB Off	1	1,500	690	.46	A	690	.46	A
I-5 at Oso	SB Direct On	1	1,080	320	.30	A	580	.54	A
	SB Loop On	1	1,080	560	.52	A	360	.33	A
	NB Direct On	1	1,500	1,110	.74	C	720	.48	A
	NB Loop On	1	1,500	160	.11	A	570	.38	A
	SB Off	1	1,500	960	.64	B	1,660	1.11	F
	NB Off	1	1,500	630	.42	A	890	.59	A
I-5 at Crown Valley ¹	SB On	1	1,800	680	.38	A	1,010	.56	A
	NB Direct On	1	1,500	1,650	1.10	F	1,740	1.16	F
	NB Loop On	1	1,080	640	.59	A	960	.89	D
	SB Off	2	2,250	1,990	.88	D	3,480	1.55	F
	NB Off	1	1,500	1,220	.81	D	610	.41	A
I-5 at Avery	SB On	1	1,080	460	.43	A	490	.45	A
	NB On	1	1,500	960	.64	B	910	.61	B
	SB Off	1	1,500	780	.52	A	1,150	.77	C
	NB Off	1	1,500	700	.47	A	780	.52	A
I-5 at Junipero Serra	SB On	1	1,080	600	.56	A	590	.55	A
	NB On	1	1,080	1,500	1.39	F	920	.85	D
	SB Off	1	1,500	810	.54	A	1,240	.83	D
	NB Off	1	1,500	420	.28	A	540	.36	A
I-5 at Ortega ¹	SB On	1	1,500	390	.26	A	490	.33	A
	NB On	1	1,500	2,200	1.47	F	2,050	1.37	F
	SB Off	2	2,250	2,080	.92	E	2,520	1.12	F
	NB Off	1	1,500	720	.48	A	730	.49	A
I-5 at Camino Capistrano	SB On	1	1,500	640	.43	A	570	.38	A
	NB On	1	1,500	940	.63	B	560	.37	A
	SB Off	1	1,500	1,030	.69	B	1,640	1.09	F
	NB Off	1	1,500	560	.37	A	770	.51	A
I-5 at Stonehill	NB On	1	1,500	1,030	.69	B	1,790	1.19	F

Table E-31 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-ULTIMATE ALTERNATIVE (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,030	1.14	F	1,230	1.37	F
	SB Loop On	1	900	180	.20	A	110	.12	A
	NB Direct On	1	900	450	.50	A	190	.21	A
	NB Loop On	1	900	380	.42	A	290	.32	A
	SB Off	2	2,250	790	.35	A	1,060	.47	A
	NB Off	2	2,250	120	.05	A	270	.12	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	820	.55	A
	NB Direct On	1	1,500	970	.65	B	770	.51	A
	NB Loop On	1	900	380	.42	A	380	.42	A
	SB Off	1	1,500	1,080	.72	C	1,150	.77	C
	NB Off	1	1,500	540	.36	A	850	.57	A
I-5 at Hermosa	SB On	1	1,080	30	.03	A	40	.04	A
	NB Direct On	1	1,500	1,320	.88	D	1,080	.72	C
	NB Loop On	1	1,080	160	.15	A	240	.22	A
	SB Off	1	1,500	1,230	.82	D	1,380	.92	E
	NB Off	1	1,500	90	.06	A	60	.04	A
I-5 at Pico	SB On	1	1,500	130	.09	A	750	.50	A
	NB On	1	1,500	3,240	2.16	F	3,330	2.22	F
	SB Off	2	2,250	2,950	1.31	F	3,410	1.52	F
	NB Off	1	1,500	550	.37	A	310	.21	A
I-5 at El Camino Real	SB On	1	1,500	460	.31	A	510	.34	A
	NB Off	1	1,500	60	.04	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	150	.10	A	220	.15	A
	SB Off	1	1,500	160	.11	A	120	.08	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	210	.14	A	130	.09	A
	NB On	1	1,500	1,180	.79	C	820	.55	A
	SB Off	1	1,500	750	.50	A	1,050	.70	B
	NB Off	1	1,500	210	.14	A	150	.10	A
SR 241 at Santa Margarita	SB On	1	1,500	240	.16	A	240	.16	A
	NB On	1	1,500	3,990	2.66	F	2,210	1.47	F
	SB Off	1	1,500	1,560	1.04	F	2,950	1.97	F
	NB Off	1	1,500	120	.08	A	60	.04	A
SR 241 at Antonio	SB On	1	1,500	260	.17	A	270	.18	A
	NB On	1	1,500	2,590	1.73	F	600	.40	A
	SB Off	1	1,500	840	.56	A	1,670	1.11	F
	NB Off	1	1,500	350	.23	A	200	.13	A

Table E-31 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-ULTIMATE ALTERNATIVE (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	270	.18	A	280	.19	A
	NB On	1	1,500	920	.61	B	190	.13	A
	SB Off	1	1,500	130	.09	A	550	.37	A
	NB Off	1	1,500	140	.09	A	280	.19	A
SR 241 at Crown Valley	SB On	1	1,500	740	.49	A	330	.22	A
	NB On	1	1,500	1,240	.83	D	320	.21	A
	SB Off	1	1,500	270	.18	A	1,180	.79	C
	NB Off	1	1,500	180	.12	A	560	.37	A
SR 241 at North River	SB On	1	1,500	530	.35	A	390	.26	A
	NB On	1	1,500	770	.51	A	600	.40	A
	SB Off	1	2,250	560	.25	A	960	.43	A
	NB Off	1	1,500	350	.23	A	420	.28	A
SR 241 at Hermosa	SB On	1	1,500	480	.32	A	630	.42	A
	NB Direct On	1	1,500	680	.45	A	710	.47	A
	NB Loop On	1	1,500	260	.17	A	200	.13	A
	SB Off	1	1,500	900	.60	A	920	.61	B
	NB Off	1	1,500	410	.27	A	580	.39	A
SR 241 at Del Cerro	SB On	1	1,500	380	.25	A	440	.29	A
	NB On	1	1,500	160	.11	A	280	.19	A
	SB Off	1	1,500	380	.25	A	190	.13	A
	NB Off	1	1,500	200	.13	A	380	.25	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	200	.19	A	210	.19	A
	SB Loop On	1	1,080	690	.64	B	850	.79	C
	NB Direct On	1	1,500	1,490	.99	E	730	.49	A
	NB Loop On	1	1,500	1,590	1.06	F	490	.33	A
	SB Off	2	3,000	1,710	.57	A	2,490	.83	D
	NB Off	1	1,500	220	.15	A	920	.61	B
I-5 at La Paz	SB Direct On	1	1,080	150	.14	A	220	.20	A
	SB Loop On	1	1,080	350	.32	A	430	.40	A
	NB Direct On	1	1,500	670	.45	A	260	.17	A
	NB Loop On	1	1,080	400	.37	A	330	.31	A
	SB Off	1	1,500	700	.47	A	1,090	.73	C
	NB Off	1	1,500	1,120	.75	C	660	.44	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	800	.74	C
	SB Loop On	1	1,080	690	.64	B	360	.33	A
	NB Direct On	1	1,500	1,300	.87	D	750	.50	A
	NB Loop On	1	1,500	380	.25	A	590	.39	A
	SB Off	1	1,500	1,120	.75	C	1,660	1.11	F
	NB Off	1	1,500	820	.55	A	1,080	.72	C
I-5 at Crown Valley ¹	SB On	1	1,800	860	.48	A	1,080	.60	A
	NB Direct On	1	1,500	1,500	1.00	E	1,620	1.08	F
	NB Loop On	1	1,080	720	.67	B	970	.90	D
	SB Off	2	2,250	2,040	.91	E	3,060	1.36	F
	NB Off	1	1,500	1,310	.87	D	850	.57	A
I-5 at Avery	SB On	1	1,080	610	.56	A	580	.54	A
	NB On	1	1,500	730	.49	A	840	.56	A
	SB Off	1	1,500	700	.47	A	960	.64	B
	NB Off	1	1,500	770	.51	A	850	.57	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	540	.50	A
	NB On	1	1,080	1,150	1.06	F	930	.86	D
	SB Off	1	1,500	830	.55	A	1,030	.69	B
	NB Off	1	1,500	390	.26	A	340	.23	A
I-5 at Ortega ¹	SB On	1	1,500	500	.33	A	600	.40	A
	NB On (a)	1	1,500	2,080	1.39	F	1,990	1.33	F
	SB Off (a)	2	2,250	2,180	.97	E	2,390	1.06	F
	NB Off	1	1,500	850	.57	A	800	.53	A
I-5 at Camino Capistrano	SB On	1	1,500	670	.45	A	620	.41	A
	NB On	1	1,500	900	.60	A	490	.33	A
	SB Off (a)	1	1,500	1,030	.69	B	1,600	1.07	F
	NB Off	1	1,500	570	.38	A	820	.55	A
I-5 at Stonehill	NB On (a)	1	1,500	990	.66	B	1,750	1.17	F

Table E-32 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	890	.99	E	1,340	1.49	F
	SB Loop On	1	900	210	.23	A	150	.17	A
	NB Direct On	1	900	340	.38	A	210	.23	A
	NB Loop On	1	900	400	.44	A	310	.34	A
	SB Off	2	2,250	860	.38	A	1,030	.46	A
	NB Off	2	2,250	180	.08	A	250	.11	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	810	.54	A
	NB Direct On	1	1,500	1,130	.75	C	940	.63	B
	NB Loop On	1	900	400	.44	A	370	.41	A
	SB Off	1	1,500	1,100	.73	C	1,420	.95	E
	NB Off	1	1,500	510	.34	A	850	.57	A
I-5 at Hermosa	SB On	1	1,080	190	.18	A	380	.35	A
	NB Direct On	1	1,500	1,460	.97	E	1,130	.75	C
	NB Loop On	1	1,080	150	.14	A	200	.19	A
	SB Off	1	1,500	1,440	.96	E	1,620	1.08	F
	NB Off	1	1,500	200	.13	A	230	.15	A
I-5 at Pico	SB On	1	1,500	450	.30	A	1,150	.77	C
	NB On (a)	1	1,500	1,370	.91	E	1,720	1.15	F
	SB Off	2	2,250	1,710	.76	C	1,400	.62	B
	NB Off	1	1,500	710	.47	A	860	.57	A
I-5 at El Camino Real	SB On	1	1,500	170	.11	A	230	.15	A
	NB On	1	1,500	540	.36	A	400	.27	A
	SB Off	1	1,500	470	.31	A	800	.53	A
	NB Off	1	1,500	110	.07	A	290	.19	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	400	.27	A	560	.37	A
	SB Off	1	1,500	250	.17	A	290	.19	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	380	.25	A	260	.17	A
	NB On	1	1,500	1,090	.73	C	620	.41	A
	SB Off	1	1,500	560	.37	A	890	.59	A
	NB Off	1	1,500	350	.23	A	370	.25	A
SR 241 at Santa Margarita	SB On	1	1,500	190	.13	A	140	.09	A
	NB On	1	1,500	3,120	2.08	F	1,170	.78	C
	SB Off	1	1,500	900	.60	A	2,100	1.40	F
	NB Off	1	1,500	90	.06	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	190	.13	A	230	.15	A
	NB On (toll)	1	1,500	2,080	1.39	F	410	.27	A
	SB Off (toll)	1	1,500	320	.21	A	1,250	.83	D
	NB Off	1	1,500	230	.15	A	180	.12	A

Table E-32 (cont)
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	460	.31	A	600	.40	A
	NB On (toll)	1	1,500	810	.54	A	100	.07	A
	SB Off (toll)	1	1,500	90	.06	A	480	.32	A
	NB Off	1	1,500	550	.37	A	540	.36	A
SR 241 at C Street	SB On (toll)	1	1,500	50	.03	A	20	.01	A
	NB On	1	1,500	870	.58	A	420	.28	A
	SB Off	1	1,500	300	.20	A	910	.61	B
	NB Off (toll)	1	1,500	20	.01	A	60	.04	A
SR 241 at North River	SB On (toll)	1	1,500	660	.44	A	630	.42	A
	NB Direct On	1	1,500	770	.51	A	310	.21	A
	NB Loop On	1	1,500	200	.13	A	80	.05	A
	SB Off	1	1,500	220	.15	A	710	.47	A
	NB Off (toll)	1	1,500	540	.36	A	720	.48	A
SR 241 at Pico	SB On (toll)	1	1,500	180	.12	A	270	.18	A
	NB On	1	1,500	980	.65	B	990	.66	B
	SB Off	1	1,500	970	.65	B	1,000	.67	B
	NB Off (toll)	1	1,500	110	.07	A	170	.11	A
SR 241 at Cristianitos	NB On	1	1,500	230	.15	A	280	.19	A
	SB Off	1	1,500	290	.19	A	420	.28	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	680	.63	B	840	.78	C
	NB Direct On	1	1,500	1,470	.98	E	740	.49	A
	NB Loop On	1	1,500	1,590	1.06	F	500	.33	A
	SB Off	2	3,000	1,660	.55	A	2,470	.82	D
	NB Off	1	1,500	200	.13	A	910	.61	B
I-5 at La Paz	SB Direct On	1	1,080	150	.14	A	230	.21	A
	SB Loop On	1	1,080	330	.31	A	430	.40	A
	NB Direct On	1	1,500	660	.44	A	240	.16	A
	NB Loop On	1	1,080	420	.39	A	320	.30	A
	SB Off	1	1,500	680	.45	A	1,100	.73	C
	NB Off	1	1,500	1,090	.73	C	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	810	.75	C
	SB Loop On	1	1,080	660	.61	B	360	.33	A
	NB Direct On	1	1,500	1,290	.86	D	730	.49	A
	NB Loop On	1	1,500	260	.17	A	630	.42	A
	SB Off	1	1,500	1,080	.72	C	1,610	1.07	F
	NB Off	1	1,500	800	.53	A	1,010	.67	B
I-5 at Crown Valley ¹	SB On	1	1,800	720	.40	A	1,030	.57	A
	NB Direct On	1	1,500	1,500	1.00	E	1,600	1.07	F
	NB Loop On	1	1,080	720	.67	B	900	.83	D
	SB Off	2	2,250	1,960	.87	D	3,070	1.36	F
	NB Off	1	1,500	1,280	.85	D	670	.45	A
I-5 at Avery	SB On	1	1,080	480	.44	A	490	.45	A
	NB On	1	1,500	900	.60	A	820	.55	A
	SB Off	1	1,500	720	.48	A	1,190	.79	C
	NB Off	1	1,500	710	.47	A	780	.52	A
I-5 at Junipero Serra	SB On	1	1,080	600	.56	A	610	.56	A
	NB On	1	1,080	1,330	1.23	F	880	.81	D
	SB Off	1	1,500	790	.53	A	1,130	.75	C
	NB Off	1	1,500	400	.27	A	530	.35	A
I-5 at Ortega ¹	SB On	1	1,500	380	.25	A	470	.31	A
	NB On (a)	1	1,500	2,100	1.40	F	2,010	1.34	F
	SB Off	2	2,250	2,110	.94	E	2,450	1.09	F
	NB Off	1	1,500	750	.50	A	700	.47	A
I-5 at Camino Capistrano	SB On	1	1,500	620	.41	A	530	.35	A
	NB On	1	1,500	860	.57	A	490	.33	A
	SB Off (a)	1	1,500	980	.65	B	1,610	1.07	F
	NB Off	1	1,500	540	.36	A	730	.49	A
I-5 at Stonehill	NB On (a)	1	1,500	1,010	.67	B	1,700	1.13	F

Table E-33 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,010	1.12	F	1,270	1.41	F
	SB Loop On	1	900	160	.18	A	100	.11	A
	NB Direct On	1	900	360	.40	A	170	.19	A
	NB Loop On	1	900	350	.39	A	270	.30	A
	SB Off	2	2,250	760	.34	A	940	.42	A
	NB Off	2	2,250	150	.07	A	260	.12	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	800	.53	A
	NB Direct On	1	1,500	920	.61	B	790	.53	A
	NB Loop On	1	900	360	.40	A	360	.40	A
	SB Off	1	1,500	1,020	.68	B	1,160	.77	C
	NB Off	1	1,500	530	.35	A	860	.57	A
I-5 at Hermosa	SB On	1	1,080	170	.16	A	360	.33	A
	NB Direct On	1	1,500	1,300	.87	D	970	.65	B
	NB Loop On	1	1,080	180	.17	A	230	.21	A
	SB Off	1	1,500	1,240	.83	D	1,380	.92	E
	NB Off	1	1,500	280	.19	A	270	.18	A
I-5 at Pico	SB On	1	1,500	420	.28	A	1,020	.68	B
	NB On (a)	1	1,500	1,230	.82	D	1,670	1.11	F
	SB Off	2	2,250	1,540	.68	B	1,160	.52	A
	NB Off	1	1,500	760	.51	A	860	.57	A
I-5 at El Camino Real	SB On	1	1,500	160	.11	A	200	.13	A
	NB On	1	1,500	530	.35	A	360	.24	A
	SB Off	1	1,500	380	.25	A	650	.43	A
	NB Off	1	1,500	130	.09	A	330	.22	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	370	.25	A	540	.36	A
	SB Off	1	1,500	210	.14	A	220	.15	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	200	.13	A
	NB On	1	1,500	1,100	.73	C	630	.42	A
	SB Off	1	1,500	570	.38	A	970	.65	B
	NB Off	1	1,500	290	.19	A	210	.14	A
SR 241 at Santa Margarita	SB On	1	1,500	150	.10	A	130	.09	A
	NB On	1	1,500	3,150	2.10	F	1,170	.78	C
	SB Off	1	1,500	910	.61	B	2,110	1.41	F
	NB Off	1	1,500	80	.05	A	50	.03	A
SR 241 at Antonio	SB On	1	1,500	160	.11	A	200	.13	A
	NB On (toll)	1	1,500	2,120	1.41	F	400	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,250	.83	D
	NB Off	1	1,500	200	.13	A	150	.10	A

Table E-33 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE
 ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	410	.27	A	550	.37	A
	NB On (toll)	1	1,500	820	.55	A	100	.07	A
	SB Off (toll)	1	1,500	90	.06	A	510	.34	A
	NB Off	1	1,500	520	.35	A	500	.33	A
SR 241 at C Street	SB On (toll)	1	1,500	40	.03	A	20	.01	A
	NB On	1	1,500	850	.57	A	430	.29	A
	SB Off	1	1,500	300	.20	A	860	.57	A
	NB Off (toll)	1	1,500	20	.01	A	60	.04	A
SR 241 at North River	SB On (toll)	1	1,500	350	.23	A	390	.26	A
	NB Direct On	1	1,500	750	.50	A	310	.21	A
	NB Loop On	1	1,500	280	.19	A	100	.07	A
	SB Off	1	1,500	240	.16	A	780	.52	A
	NB Off (toll)	1	1,500	340	.23	A	380	.25	A
SR 241 at Pico	SB On (toll)	1	1,500	180	.12	A	310	.21	A
	NB On	1	1,500	640	.43	A	590	.39	A
	SB Off	1	1,500	580	.39	A	640	.43	A
	NB Off (toll)	1	1,500	100	.07	A	170	.11	A
SR 241 at Cristianitos	NB On	1	1,500	180	.12	A	210	.14	A
	SB Off	1	1,500	230	.15	A	410	.27	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Table E-34
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE
ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	670	.62	B	700	.65	B
	NB Direct On	1	1,500	1,480	.99	E	750	.50	A
	NB Loop On	1	1,500	1,580	1.05	F	490	.33	A
	SB Off	2	3,000	1,630	.54	A	2,540	.85	D
	NB Off	1	1,500	310	.21	A	900	.60	A
I-5 at La Paz	SB Direct On	1	1,080	110	.10	A	250	.23	A
	SB Loop On	1	1,080	330	.31	A	410	.38	A
	NB Direct On	1	1,500	810	.54	A	200	.13	A
	NB Loop On	1	1,080	370	.34	A	290	.27	A
	SB Off	1	1,500	680	.45	A	1,130	.75	C
	NB Off	1	1,500	1,030	.69	B	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	810	.75	C
	SB Loop On	1	1,080	640	.59	A	330	.31	A
	NB Direct On	1	1,500	1,470	.98	E	740	.49	A
	NB Loop On	1	1,500	400	.27	A	620	.41	A
	SB Off	1	1,500	1,060	.71	C	1,490	.99	E
	NB Off	1	1,500	970	.65	B	1,010	.67	B
I-5 at Crown Valley ¹	SB On	1	1,800	720	.40	A	1,090	.61	B
	NB Direct On	1	1,500	1,570	1.05	F	1,830	1.22	F
	NB Loop On	1	1,080	730	.68	B	940	.87	D
	SB Off	2	2,250	2,000	.89	D	3,490	1.55	F
	NB Off	1	1,500	1,250	.83	D	690	.46	A
I-5 at Avery	SB On	1	1,080	470	.44	A	490	.45	A
	NB On	1	1,500	940	.63	B	800	.53	A
	SB Off	1	1,500	730	.49	A	1,160	.77	C
	NB Off	1	1,500	690	.46	A	800	.53	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	640	.59	A
	NB On	1	1,080	1,410	1.31	F	920	.85	D
	SB Off	1	1,500	800	.53	A	1,290	.86	D
	NB Off	1	1,500	430	.29	A	500	.33	A
I-5 at Ortega ¹	SB On	1	1,500	440	.29	A	530	.35	A
	NB On	1	1,500	2,180	1.45	F	2,000	1.33	F
	SB Off	2	2,250	2,050	.91	E	2,520	1.12	F
	NB Off	1	1,500	760	.51	A	790	.53	A
I-5 at Camino Capistrano	SB On	1	1,500	670	.45	A	570	.38	A
	NB On	1	1,500	880	.59	A	510	.34	A
	SB Off (a)	1	1,500	980	.65	B	1,620	1.08	F
	NB Off	1	1,500	570	.38	A	770	.51	A
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,700	1.13	F

Table E-34 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,030	1.14	F	1,260	1.40	F
	SB Loop On	1	900	180	.20	A	100	.11	A
	NB Direct On	1	900	450	.50	A	190	.21	A
	NB Loop On	1	900	340	.38	A	260	.29	A
	SB Off	2	2,250	760	.34	A	1,010	.45	A
	NB Off	2	2,250	130	.06	A	260	.12	A
I-5 at Estrella	SB On	1	1,500	740	.49	A	800	.53	A
	NB Direct On	1	1,500	960	.64	B	790	.53	A
	NB Loop On	1	900	370	.41	A	380	.42	A
	SB Off	1	1,500	1,090	.73	C	1,170	.78	C
	NB Off	1	1,500	530	.35	A	820	.55	A
I-5 at Hermosa	SB On	1	1,080	180	.17	A	370	.34	A
	NB Direct On	1	1,500	1,310	.87	D	1,040	.69	B
	NB Loop On	1	1,080	180	.17	A	240	.22	A
	SB Off	1	1,500	1,290	.86	D	1,430	.95	E
	NB Off	1	1,500	310	.21	A	240	.16	A
I-5 at Pico	SB On	1	1,500	470	.31	A	1,130	.75	C
	NB On (a)	1	1,500	1,140	.76	C	1,690	1.13	F
	SB Off	2	2,250	1,570	.70	B	1,170	.52	A
	NB Off	1	1,500	780	.52	A	860	.57	A
I-5 at El Camino Real	SB On	1	1,500	170	.11	A	180	.12	A
	NB On	1	1,500	540	.36	A	390	.26	A
	SB Off	1	1,500	450	.30	A	760	.51	A
	NB Off	1	1,500	90	.06	A	270	.18	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	380	.25	A	540	.36	A
	SB Off	1	1,500	210	.14	A	210	.14	A
	NB Off	1	1,500	300	.20	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	250	.17	A	200	.13	A
	NB On	1	1,500	1,180	.79	C	690	.46	A
	SB Off	1	1,500	580	.39	A	1,030	.69	B
	NB Off	1	1,500	280	.19	A	200	.13	A
SR 241 at Santa Margarita	SB On	1	1,500	140	.09	A	120	.08	A
	NB On	1	1,500	3,320	2.21	F	1,240	.83	D
	SB Off	1	1,500	910	.61	B	2,240	1.49	F
	NB Off	1	1,500	70	.05	A	40	.03	A
SR 241 at Antonio	SB On	1	1,500	140	.09	A	160	.11	A
	NB On (toll)	1	1,500	2,130	1.42	F	410	.27	A
	SB Off (toll)	1	1,500	340	.23	A	1,380	.92	E
	NB Off	1	1,500	160	.11	A	110	.07	A

Table E-34 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-INITIAL AND ULTIMATE
 ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Oso	SB On	1	1,500	130	.09	A	160	.11	A
	NB On (toll)	1	1,500	1,340	.89	D	120	.08	A
	SB Off (toll)	1	1,500	100	.07	A	770	.51	A
	NB Off	1	1,500	70	.05	A	130	.09	A
SR 241 at Crown Valley	SB On	1	1,500	400	.27	A	200	.13	A
	NB On (toll)	1	1,500	860	.57	A	160	.11	A
	SB Off (toll)	1	1,500	100	.07	A	890	.59	A
	NB Off	1	1,500	80	.05	A	280	.19	A
SR 241 at North River	SB On (toll)	1	1,500	310	.21	A	200	.13	A
	NB On	1	1,500	650	.43	A	210	.14	A
	SB Off	1	1,500	190	.13	A	720	.48	A
	NB Off (toll)	1	1,500	100	.07	A	180	.12	A
SR 241 at Pico	SB On (toll)	1	1,500	160	.11	A	320	.21	A
	NB On	1	1,500	590	.39	A	660	.44	A
	SB Off	1	1,500	750	.50	A	630	.42	A
	NB Off (toll)	1	1,500	140	.09	A	180	.12	A
SR 241 at Cristianitos	NB On	1	1,500	170	.11	A	200	.13	A
	SB Off	1	1,500	240	.16	A	400	.27	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	690	.64	B	840	.78	C
	NB Direct On	1	1,500	1,470	.98	E	730	.49	A
	NB Loop On	1	1,500	1,590	1.06	F	510	.34	A
	SB Off	2	3,000	1,670	.56	A	2,480	.83	D
	NB Off	1	1,500	220	.15	A	920	.61	B
I-5 at La Paz	SB Direct On	1	1,080	130	.12	A	220	.20	A
	SB Loop On	1	1,080	380	.35	A	430	.40	A
	NB Direct On	1	1,500	660	.44	A	250	.17	A
	NB Loop On	1	1,080	430	.40	A	340	.31	A
	SB Off	1	1,500	680	.45	A	1,200	.80	C
	NB Off	1	1,500	1,120	.75	C	660	.44	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	830	.77	C
	SB Loop On	1	1,080	700	.65	B	370	.34	A
	NB Direct On	1	1,500	1,300	.87	D	750	.50	A
	NB Loop On	1	1,500	360	.24	A	600	.40	A
	SB Off	1	1,500	1,130	.75	C	1,680	1.12	F
	NB Off	1	1,500	810	.54	A	1,080	.72	C
I-5 at Crown Valley ¹	SB On	1	1,800	870	.48	A	1,050	.58	A
	NB Direct On	1	1,500	1,480	.99	E	1,610	1.07	F
	NB Loop On	1	1,080	720	.67	B	970	.90	D
	SB Off	2	2,250	2,010	.89	D	3,050	1.36	F
	NB Off	1	1,500	1,300	.87	D	840	.56	A
I-5 at Avery	SB On	1	1,080	620	.57	A	550	.51	A
	NB On	1	1,500	750	.50	A	830	.55	A
	SB Off	1	1,500	680	.45	A	960	.64	B
	NB Off	1	1,500	750	.50	A	840	.56	A
I-5 at Junipero Serra	SB On	1	1,080	390	.36	A	550	.51	A
	NB On	1	1,080	1,200	1.11	F	960	.89	D
	SB Off	1	1,500	830	.55	A	1,100	.73	C
	NB Off	1	1,500	390	.26	A	340	.23	A
I-5 at Ortega ¹	SB On	1	1,500	510	.34	A	580	.39	A
	NB On (a)	1	1,500	2,040	1.36	F	1,960	1.31	F
	SB Off	2	2,250	2,160	.96	E	2,330	1.04	F
	NB Off	1	1,500	840	.56	A	770	.51	A
I-5 at Camino Capistrano	SB On	1	1,500	670	.45	A	600	.40	A
	NB On	1	1,500	890	.59	A	470	.31	A
	SB Off (a)	1	1,500	1,020	.68	B	1,530	1.02	F
	NB Off	1	1,500	600	.40	A	830	.55	A
I-5 at Stonehill	NB On (a)	1	1,500	990	.66	B	1,720	1.15	F

Table E-35 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	880	.98	E	1,290	1.43	F
	SB Loop On	1	900	210	.23	A	150	.17	A
	NB Direct On	1	900	300	.33	A	210	.23	A
	NB Loop On	1	900	400	.44	A	320	.36	A
	SB Off	2	2,250	860	.38	A	970	.43	A
	NB Off	2	2,250	180	.08	A	240	.11	A
I-5 at Estrella	SB On	1	1,500	770	.51	A	810	.54	A
	NB Direct On	1	1,500	1,130	.75	C	980	.65	B
	NB Loop On	1	900	390	.43	A	380	.42	A
	SB Off	1	1,500	1,090	.73	C	1,390	.93	E
	NB Off	1	1,500	520	.35	A	850	.57	A
I-5 at Hermosa	SB On	1	1,080	210	.19	A	370	.34	A
	NB Direct On	1	1,500	1,420	.95	E	1,130	.75	C
	NB Loop On	1	1,080	150	.14	A	200	.19	A
	SB Off	1	1,500	1,440	.96	E	1,580	1.05	F
	NB Off	1	1,500	210	.14	A	240	.16	A
I-5 at Pico	SB On	1	1,500	470	.31	A	1,260	.84	D
	NB On (a)	1	1,500	1,300	.87	D	1,580	1.05	F
	SB Off	2	2,250	1,670	.74	C	1,290	.57	A
	NB Off	1	1,500	750	.50	A	920	.61	B
I-5 at El Camino Real	SB On	1	1,500	130	.09	A	200	.13	A
	NB On	1	1,500	550	.37	A	390	.26	A
	SB Off	1	1,500	470	.31	A	800	.53	A
	NB Off	1	1,500	100	.07	A	270	.18	A
I-5 at Cristianitos	SB Direct On	1	1,500	40	.03	A	20	.01	A
	SB Loop On	2	2,250	800	.36	A	2,140	.95	E
	NB On	1	1,500	330	.22	A	470	.31	A
	SB Off	1	1,500	220	.15	A	230	.15	A
	NB Off	2	2,250	1,990	.88	D	1,780	.79	C
I-5 at Basillone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	380	.25	A	260	.17	A
	NB On	1	1,500	1,090	.73	C	610	.41	A
	SB Off	1	1,500	570	.38	A	910	.61	B
	NB Off	1	1,500	340	.23	A	360	.24	A
SR 241 at Santa Margarita	SB On	1	1,500	190	.13	A	130	.09	A
	NB On	1	1,500	3,140	2.09	F	1,190	.79	C
	SB Off	1	1,500	920	.61	B	2,110	1.41	F
	NB Off	1	1,500	90	.06	A	50	.03	A

Table E-35 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Antonio	SB On	1	1,500	190	.13	A	220	.15	A
	NB On (toll)	1	1,500	2,140	1.43	F	400	.27	A
	SB Off (toll)	1	1,500	320	.21	A	1,270	.85	D
	NB Off	1	1,500	220	.15	A	180	.12	A
SR 241 at Oso	SB On	1	1,500	450	.30	A	610	.41	A
	NB On (toll)	1	1,500	830	.55	A	100	.07	A
	SB Off (toll)	1	1,500	90	.06	A	520	.35	A
	NB Off	1	1,500	550	.37	A	550	.37	A
SR 241 at C Street	SB On (toll)	1	1,500	50	.03	A	20	.01	A
	NB On	1	1,500	900	.60	A	420	.28	A
	SB Off	1	1,500	300	.20	A	890	.59	A
	NB Off (toll)	1	1,500	20	.01	A	60	.04	A
SR 241 at North River	SB On (toll)	1	1,500	630	.42	A	610	.41	A
	NB Direct On	1	1,500	760	.51	A	320	.21	A
	NB Loop On	1	1,500	210	.14	A	80	.05	A
	SB Off	1	1,500	220	.15	A	760	.51	A
	NB Off (toll)	1	1,500	520	.35	A	710	.47	A
SR 241 at Pico	SB On	1	1,500	120	.08	A	160	.11	A
	NB On	1	1,500	1,090	.73	C	1,070	.71	C
	SB Off	1	1,500	1,030	.69	B	1,150	.77	C
	NB Off	1	1,500	70	.05	A	90	.06	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	690	.64	B	830	.77	C
	NB Direct On	1	1,500	1,460	.97	E	730	.49	A
	NB Loop On	1	1,500	1,600	1.07	F	500	.33	A
	SB Off	2	3,000	1,660	.55	A	2,460	.82	D
	NB Off	1	1,500	200	.13	A	910	.61	B
I-5 at La Paz	SB Direct On	1	1,080	150	.14	A	220	.20	A
	SB Loop On	1	1,080	340	.31	A	430	.40	A
	NB Direct On	1	1,500	670	.45	A	240	.16	A
	NB Loop On	1	1,080	440	.41	A	340	.31	A
	SB Off	1	1,500	680	.45	A	1,110	.74	C
	NB Off	1	1,500	1,060	.71	C	650	.43	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	810	.75	C
	SB Loop On	1	1,080	680	.63	B	370	.34	A
	NB Direct On	1	1,500	1,290	.86	D	730	.49	A
	NB Loop On	1	1,500	270	.18	A	640	.43	A
	SB Off	1	1,500	1,090	.73	C	1,620	1.08	F
	NB Off	1	1,500	790	.53	A	1,020	.68	B
I-5 at Crown Valley ¹	SB On	1	1,800	730	.41	A	1,020	.57	A
	NB Direct On	1	1,500	1,490	.99	E	1,600	1.07	F
	NB Loop On	1	1,080	720	.67	B	900	.83	D
	SB Off	2	2,250	1,940	.86	D	3,060	1.36	F
	NB Off	1	1,500	1,280	.85	D	670	.45	A
I-5 at Avery	SB On	1	1,080	470	.44	A	470	.44	A
	NB On	1	1,500	920	.61	B	820	.55	A
	SB Off	1	1,500	700	.47	A	1,190	.79	C
	NB Off	1	1,500	700	.47	A	750	.50	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	600	.56	A
	NB On	1	1,080	1,350	1.25	F	910	.84	D
	SB Off	1	1,500	790	.53	A	1,120	.75	C
	NB Off	1	1,500	390	.26	A	520	.35	A
I-5 at Ortega ¹	SB On	1	1,500	390	.26	A	460	.31	A
	NB On (a)	1	1,500	2,110	1.41	F	1,970	1.31	F
	SB Off	2	2,250	2,110	.94	E	2,450	1.09	F
	NB Off	1	1,500	740	.49	A	690	.46	A
I-5 at Camino Capistrano	SB On	1	1,500	620	.41	A	530	.35	A
	NB On	1	1,500	860	.57	A	480	.32	A
	SB Off (a)	1	1,500	970	.65	B	1,600	1.07	F
	NB Off	1	1,500	530	.35	A	730	.49	A
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,670	1.11	F

Table E-36 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,000	1.11	F	1,240	1.38	F
	SB Loop On	1	900	160	.18	A	100	.11	A
	NB Direct On	1	900	330	.37	A	170	.19	A
	NB Loop On	1	900	340	.38	A	250	.28	A
	SB Off	2	2,250	750	.33	A	910	.40	A
	NB Off	2	2,250	140	.06	A	230	.10	A
I-5 at Estrella	SB On	1	1,500	760	.51	A	800	.53	A
	NB Direct On	1	1,500	910	.61	B	780	.52	A
	NB Loop On	1	900	350	.39	A	360	.40	A
	SB Off	1	1,500	1,020	.68	B	1,140	.76	C
	NB Off	1	1,500	520	.35	A	850	.57	A
I-5 at Hermosa	SB On	1	1,080	220	.20	A	400	.37	A
	NB Direct On	1	1,500	1,280	.85	D	940	.63	B
	NB Loop On	1	1,080	150	.14	A	220	.20	A
	SB Off	2	2,250	1,240	.55	A	1,320	.59	A
	NB Off	1	1,500	300	.20	A	300	.20	A
I-5 at Pico	SB On	1	1,500	460	.31	A	1,170	.78	C
	NB On (a)	1	1,500	1,210	.81	D	1,650	1.10	F
	SB Off	1	1,500	1,500	1.00	E	1,130	.75	C
	NB Off	1	1,500	810	.54	A	910	.61	B
I-5 at El Camino Real	SB On	1	1,500	130	.09	A	180	.12	A
	NB On	1	1,500	520	.35	A	390	.26	A
	SB Off	1	1,500	380	.25	A	700	.47	A
	NB Off	1	1,500	110	.07	A	310	.21	A
I-5 at Cristianitos	SB Direct On	1	1,500	40	.03	A	20	.01	A
	SB Loop On	2	2,250	580	.26	A	1,910	.85	D
	NB On	1	1,500	300	.20	A	430	.29	A
	SB Off	1	1,500	200	.13	A	200	.13	A
	NB Off	2	2,250	1,750	.78	C	1,550	.69	B
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	200	.13	A
	NB On	1	1,500	1,150	.77	C	620	.41	A
	SB Off	1	1,500	580	.39	A	870	.58	A
	NB Off	1	1,500	290	.19	A	210	.14	A
SR 241 at Santa Margarita	SB On	1	1,500	140	.09	A	120	.08	A
	NB On	1	1,500	3,140	2.09	F	1,190	.79	C
	SB Off	1	1,500	910	.61	B	2,110	1.41	F
	NB Off	1	1,500	80	.05	A	50	.03	A

Table E-36 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Antonio	SB On	1	1,500	160	.11	A	200	.13	A
	NB On (toll)	1	1,500	2,160	1.44	F	400	.27	A
	SB Off (toll)	1	1,500	330	.22	A	1,240	.83	D
	NB Off	1	1,500	200	.13	A	150	.10	A
SR 241 at Oso	SB On	1	1,500	400	.27	A	540	.36	A
	NB On (toll)	1	1,500	820	.55	A	100	.07	A
	SB Off (toll)	1	1,500	90	.06	A	540	.36	A
	NB Off	1	1,500	500	.33	A	490	.33	A
SR 241 at C Street	SB On (toll)	1	1,500	40	.03	A	20	.01	A
	NB On	1	1,500	850	.57	A	430	.29	A
	SB Off	1	1,500	300	.20	A	860	.57	A
	NB Off (toll)	1	1,500	20	.01	A	40	.03	A
SR 241 at North River	SB On (toll)	1	1,500	280	.19	A	320	.21	A
	NB Direct On	1	1,500	760	.51	A	310	.21	A
	NB Loop On	1	1,500	300	.20	A	90	.06	A
	SB Off	1	1,500	240	.16	A	790	.53	A
	NB Off (toll)	1	1,500	310	.21	A	330	.22	A
SR 241 at Pico	SB On	1	1,500	120	.08	A	190	.13	A
	NB On	1	1,500	690	.46	A	630	.42	A
	SB Off	1	1,500	610	.41	A	700	.47	A
	NB Off	1	1,500	70	.05	A	100	.07	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Table E-37
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	180	.17	A	210	.19	A
	SB Loop On	1	1,080	680	.63	B	850	.79	C
	NB Direct On	1	1,500	1,460	.97	E	710	.47	A
	NB Loop On	1	1,500	1,620	1.08	F	480	.32	A
	SB Off	2	3,000	1,650	.55	A	2,420	.81	D
	NB Off	1	1,500	200	.13	A	910	.61	B
I-5 at La Paz	SB Direct On	1	1,080	130	.12	A	220	.20	A
	SB Loop On	1	1,080	360	.33	A	430	.40	A
	NB Direct On	1	1,500	660	.44	A	210	.14	A
	NB Loop On	1	1,080	480	.44	A	310	.29	A
	SB Off	1	1,500	690	.46	A	1,140	.76	C
	NB Off	1	1,500	1,150	.77	C	630	.42	A
I-5 at Oso	SB Direct On	1	1,080	460	.43	A	790	.73	C
	SB Loop On	1	1,080	650	.60	A	370	.34	A
	NB Direct On	1	1,500	1,350	.90	D	740	.49	A
	NB Loop On	1	1,500	250	.17	A	660	.44	A
	SB Off (b)	1	1,500	1,200	.80	C	1,690	1.13	F
	With Mitigation	2	2,250	1,200	.53	A	1,690	.75	C
	NB Off	1	1,500	800	.53	A	920	.61	B
I-5 at Crown Valley ¹	SB On	1	1,800	680	.38	A	1,000	.56	A
	NB Direct On(b)	1	1,500	1,530	1.02	F	1,710	1.14	F
	With Mitigation	2	1,800	1,530	.85	D	1,710	.95	E
	NB Loop On	1	1,080	710	.66	B	860	.80	C
	SB Off (b)	2	2,250	1,890	.84	D	3,200	1.42	F
	With Mitigation	2	3,000	1,890	.63	B	3,200	1.07	F
I-5 at Avery	NB Off	1	1,500	1,240	.83	D	620	.41	A
	SB On	1	1,080	460	.43	A	470	.44	A
	NB On	1	1,500	930	.62	B	840	.56	A
	SB Off	1	1,500	700	.47	A	1,210	.81	D
	NB Off	1	1,500	660	.44	A	730	.49	A
	SB On	1	1,080	590	.55	A	550	.51	A
I-5 at Junipero Serra	NB On	1	1,080	1,370	1.27	F	930	.86	D
	SB Off	1	1,500	780	.52	A	1,210	.81	D
	NB Off	1	1,500	380	.25	A	480	.32	A
	SB On	1	1,500	360	.24	A	420	.28	A
I-5 at Ortega ¹	NB On	1	1,500	2,160	1.44	F	1,880	1.25	F
	SB Off	2	2,250	2,000	.89	D	2,280	1.01	F
	NB Off	1	1,500	740	.49	A	670	.45	A
	SB On	1	1,500	590	.39	A	490	.33	A
I-5 at Camino Capistrano	NB On	1	1,500	870	.58	A	480	.32	A
	SB Off	1	1,500	970	.65	B	1,500	1.00	E
	NB Off	1	1,500	500	.33	A	700	.47	A
	SB On	1	1,500	590	.39	A	490	.33	A

Table E-37 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIO ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Stonehill	NB On (a)	1	1,500	980	.65	B	1,600	1.07	F
I-5 at PCH/Las Ramblas	SB Direct On	1	900	980	1.09	F	1,190	1.32	F
	SB Loop On	1	900	170	.19	A	100	.11	A
	NB Direct On	1	900	280	.31	A	140	.16	A
	NB Loop On	1	900	340	.38	A	230	.26	A
	SB Off	2	2,250	750	.33	A	830	.37	A
	NB Off	2	2,250	130	.06	A	210	.09	A
I-5 at Estrella	SB On	1	1,500	720	.48	A	680	.45	A
	NB Direct On	1	1,500	880	.59	A	780	.52	A
	NB Loop On	1	900	390	.43	A	360	.40	A
	SB Off	1	1,500	1,120	.75	C	1,270	.85	D
	NB Off	1	1,500	470	.31	A	780	.52	A
I-5 at Hermosa	SB On	1	1,080	430	.40	A	1,030	.95	E
	NB Direct On	1	1,500	1,120	.75	C	810	.54	A
	NB Loop On	1	1,080	160	.15	A	220	.20	A
	SB Off	1	1,500	1,090	.73	C	1,160	.77	C
	NB Off	1	1,500	820	.55	A	630	.42	A
I-5 at Pico	SB On (b)	1	1,500	910	.61	B	1,720	1.15	F
	With Mitigation	2	3,000	910	.51	A	1,720	.96	E
	NB On	1	1,500	1,250	.83	D	1,510	1.01	F
	SB Off	2	2,250	1,350	.60	A	1,020	.45	A
	NB Off	1	1,500	1,230	.82	D	1,500	1.00	E
I-5 at El Camino Real	SB On	1	1,500	80	.05	A	140	.09	A
	NB On	1	1,500	610	.41	A	400	.27	A
	SB Off	1	1,500	470	.31	A	870	.58	A
	NB Off	1	1,500	100	.07	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	110	.07	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	250	.17	A	180	.12	A
	NB On	1	1,500	1,090	.73	C	630	.42	A
	SB Off	1	1,500	570	.38	A	870	.58	A
	NB Off	1	1,500	270	.18	A	200	.13	A
SR 241 at Santa Margarita	SB On	1	1,500	50	.03	A	50	.03	A
	NB On	1	1,500	3,180	2.12	F	1,230	.82	D
	SB Off	1	1,500	930	.62	B	2,180	1.45	F
	NB Off	1	1,500	30	.02	A	20	.01	A

Table E-37 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIO ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Antonio	SB On	1	1,500	50	.03	A	60	.04	A
	NB On (toll) (b)	1	1,500	2,490	1.66	F	600	.40	A
	With Mitigation	2	3,000	2,490	.83	D	600	.20	A
	SB Off (toll) (b)	1	1,500	490	.33	A	1,670	1.11	F
	With Mitigation	2	3,000	490	.16	A	1,670	.56	A
	NB Off	1	1,500	80	.05	A	40	.03	A
SR 241 at Oso	NB On (toll) (b)	1	1,500	2,030	1.35	F	240	.16	A
	With Mitigation	2	3,000	2,030	.68	B	240	.08	A
	SB Off (toll)	1	1,500	160	.11	A	1,170	.78	C

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table E-38
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour			
				Volume	V/C	LOS	Volume	V/C	LOS	
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A	
	SB Loop On	1	1,080	670	.62	B	730	.68	B	
	NB Direct On	1	1,500	1,580	1.05	F	730	.49	A	
	NB Loop On	1	1,500	1,610	1.07	F	500	.33	A	
	SB Off	2	3,000	1,640	.55	A	2,480	.83	D	
	NB Off	1	1,500	200	.13	A	910	.61	B	
I-5 at La Paz	SB Direct On	1	1,080	120	.11	A	240	.22	A	
	SB Loop On	1	1,080	350	.32	A	400	.37	A	
	NB Direct On	1	1,500	590	.39	A	200	.13	A	
	NB Loop On	1	1,080	380	.35	A	320	.30	A	
	SB Off	1	1,500	690	.46	A	1,130	.75	C	
	NB Off	1	1,500	1,030	.69	B	640	.43	A	
I-5 at Oso	SB Direct On	1	1,080	450	.42	A	770	.71	C	
	SB Loop On	1	1,080	610	.56	A	330	.31	A	
	NB Direct On	1	1,500	1,500	1.00	E	790	.53	A	
	NB Loop On	1	1,500	400	.27	A	570	.38	A	
	SB Off	1	1,500	1,170	.78	C	1,470	.98	E	
	NB Off	1	1,500	1,000	.67	B	930	.62	B	
I-5 at Crown Valley ¹	SB On	1	1,800	700	.39	A	1,080	.60	A	
	NB Direct On	1	1,500	1,570	1.05	F	1,830	1.22	F	
	NB Loop On	1	1,080	720	.67	B	900	.83	D	
	SB Off	2	2,250	1,890	.84	D	3,430	1.52	F	
	NB Off	1	1,500	1,210	.81	D	590	.39	A	
I-5 at Avery	SB On	1	1,080	460	.43	A	420	.39	A	
	NB On	1	1,500	1,020	.68	B	860	.57	A	
	SB Off	1	1,500	720	.48	A	1,130	.75	C	
	NB Off	1	1,500	650	.43	A	790	.53	A	
I-5 at Junipero Serra	SB On	1	1,080	580	.54	A	600	.56	A	
	NB On	1	1,080	1,510	1.40	F	940	.87	D	
	SB Off	1	1,500	800	.53	A	1,380	.92	E	
	NB Off	1	1,500	420	.28	A	470	.31	A	
I-5 at Ortega ¹	SB On	1	1,500	360	.24	A	440	.29	A	
	NB On (b)	1	1,500	2,170	1.45	F	2,060	1.37	F	
	With Mitigation									
	NB On	2	1,800	2,170	1.21	F	2,060	1.14	F	
	or									
	NB Direct On	1	1,500	1,480	.99	E	1,300	.87	D	
	NB Loop On	1	1,500	690	.46	A	760	.51	A	
	SB Off	2	2,250	1,990	.88	D	2,510	1.12	F	
	NB Off	1	1,500	720	.48	A	710	.47	A	

Table E-38 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIO ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Camino Capistrano	SB On	1	1,500	640	.43	A	530	.35	A
	NB On	1	1,500	870	.58	A	480	.32	A
	SB Off	1	1,500	970	.65	B	1,470	.98	E
	NB Off	1	1,500	550	.37	A	740	.49	A
I-5 at Stonehill	NB On (a)	1	1,500	970	.65	B	1,630	1.09	F
I-5 at PCH/Las Ramblas	SB Direct On	1	900	1,010	1.12	F	1,170	1.30	F
	SB Loop On	1	900	180	.20	A	90	.10	A
	NB Direct On	1	900	390	.43	A	160	.18	A
	NB Loop On	1	900	320	.36	A	230	.26	A
	SB Off	2	2,250	740	.33	A	980	.44	A
	NB Off	2	2,250	110	.05	A	200	.09	A
I-5 at Estrella	SB On	1	1,500	690	.46	A	650	.43	A
	NB Direct On	1	1,500	910	.61	B	810	.54	A
	NB Loop On	1	900	390	.43	A	410	.46	A
	SB Off	1	1,500	1,190	.79	C	1,290	.86	D
	NB Off	1	1,500	480	.32	A	760	.51	A
I-5 at Hermosa	SB On	1	1,080	490	.45	A	1,070	.99	E
	NB Direct On	1	1,500	1,110	.74	C	1,040	.69	B
	NB Loop On	1	1,080	130	.12	A	220	.20	A
	SB Off	1	1,500	1,130	.75	C	1,140	.76	C
	NB Off	1	1,500	950	.63	B	650	.43	A
I-5 at Pico	SB On (b)	1	1,500	820	.55	A	1,790	1.19	F
	With Mitigation	2	3,000	820	.46	A	1,790	.99	E
	NB On	1	1,500	1,200	.80	C	1,330	.89	D
	SB Off	2	2,250	1,420	.63	B	1,090	.48	A
	NB Off	1	1,500	1,250	.83	D	1,480	.99	E
I-5 at El Camino Real	SB On	1	1,500	110	.07	A	190	.13	A
	NB On	1	1,500	620	.41	A	430	.29	A
	SB Off	1	1,500	460	.31	A	860	.57	A
	NB Off	1	1,500	90	.06	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	130	.09	A	220	.15	A
	SB Off	1	1,500	160	.11	A	110	.07	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	250	.17	A	190	.13	A
	NB On	1	1,500	1,190	.79	C	680	.45	A
	SB Off	1	1,500	580	.39	A	1,050	.70	B
	NB Off	1	1,500	270	.18	A	190	.13	A

Table E-38 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIO ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Santa Margarita	SB On	1	1,500	40	.03	A	50	.03	A
	NB On	1	1,500	3,340	2.23	F	1,290	.86	D
	SB Off	1	1,500	930	.62	B	2,290	1.53	F
	NB Off	1	1,500	30	.02	A	20	.01	A
SR 241 at Antonio	SB On	1	1,500	60	.04	A	60	.04	A
	NB On (toll)	1	1,500	2,480	1.65	F	540	.36	A
	SB Off (toll) (b)	1	1,500	430	.29	A	1,590	1.06	F
	<i>With Mitigation</i>	2	3,000	430	.14	A	1,590	.53	A
	NB Off	1	1,500	70	.05	A	60	.04	A
SR 241 at Oso	NB On (toll) (b)	1	1,500	3,490	2.33	F	670	.45	A
	<i>With Mitigation</i>	2	3,000	3,490	1.16	F	670	.22	A
	SB Off (toll) (b)	1	1,500	280	.19	A	2,480	1.65	F
	<i>With Mitigation</i>	2	3,000	280	.09	A	2,480	.83	D

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	190	.18	A	210	.19	A
	SB Loop On	1	1,080	710	.66	B	850	.79	C
	NB Direct On	1	1,500	1,460	.97	E	740	.49	A
	NB Loop On	1	1,500	1,570	1.05	F	500	.33	A
	SB Off	2	3,000	1,730	.58	A	2,430	.81	D
	NB Off	1	1,500	240	.16	A	910	.61	B
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	240	.22	A
	SB Loop On	1	1,080	300	.28	A	490	.45	A
	NB Direct On	1	1,500	590	.39	A	250	.17	A
	NB Loop On	1	1,080	380	.35	A	340	.31	A
	SB Off	1	1,500	770	.51	A	1,120	.75	C
	NB Off	1	1,500	1,210	.81	D	640	.43	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	810	.75	C
	SB Loop On	1	1,080	640	.59	A	370	.34	A
	NB Direct On	1	1,500	1,410	.94	E	770	.51	A
	NB Loop On	1	1,500	360	.24	A	600	.40	A
	SB Off	2	2,250	1,170	.52	A	1,770	.79	C
	NB Off	2	2,250	940	.42	A	900	.40	A
I-5 at Crown Valley ¹	SB Direct On	1	1,500	280	.19	A	470	.31	A
	SB Loop On	1	1,500	410	.27	A	540	.36	A
	NB Direct On (a)	1	1,500	1,550	1.03	F	1,690	1.13	F
	With Mitigation	2	1,800	1,550	.86	D	1,690	.94	E
	NB Loop On	1	1,080	750	.69	B	860	.80	C
	SB Off (a)	2	2,250	1,920	.85	D	3,200	1.42	F
	With Mitigation	2	3,000	1,920	.64	B	3,200	1.07	F
NB Off	1	1,500	1,260	.84	D	620	.41	A	
I-5 at Avery	SB On	1	1,080	460	.43	A	520	.48	A
	NB On	1	1,500	830	.55	A	820	.55	A
	SB Off	1	1,500	700	.47	A	1,070	.71	C
	NB Off	1	1,500	710	.47	A	760	.51	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	540	.50	A
	NB On	1	1,500	1,400	.93	E	910	.61	B
	SB Off	1	1,500	790	.53	A	1,220	.81	D
	NB Off	1	1,500	380	.25	A	490	.33	A
I-5 at Ortega ¹	SB Direct On	1	1,500	170	.11	A	240	.16	A
	SB Loop On	1	1,500	190	.13	A	180	.12	A
	NB Direct On	1	1,500	1,570	1.05	F	1,250	.83	D
	NB Loop On	1	1,500	760	.51	A	790	.53	A
	SB Off (a)	2	2,250	2,060	.92	E	2,600	1.16	F
	With Mitigation	2	3,000	2,060	.69	B	2,600	.87	D
NB Off	2	2,250	740	.33	A	670	.30	A	

Table E-39 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIP ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Camino Capistrano	SB On	1	1,500	600	.40	A	510	.34	A
	NB On	1	1,500	990	.66	B	520	.35	A
	SB Off	2	2,250	980	.44	A	1,550	.69	B
	NB Off	1	1,500	480	.32	A	670	.45	A
I-5 at Stonehill	NB On (a)	1	1,500	1,080	.72	C	1,680	1.12	F
	<i>With Mitigation</i>	2	1,800	1,080	.60	A	1,680	.93	E
I-5 at PCH/Las Ramblas	SB Direct On	1	1,500	970	.65	B	1,160	.77	C
	SB Loop On	1	1,500	160	.11	A	100	.07	A
	NB Direct On	1	900	320	.36	A	140	.16	A
	NB Loop On	1	1,500	370	.25	A	220	.15	A
	SB Off	2	2,250	780	.35	A	920	.41	A
	NB Off	2	2,250	100	.04	A	180	.08	A
I-5 at Estrella	SB On	1	1,500	730	.49	A	690	.46	A
	NB Direct On	1	1,500	890	.59	A	790	.53	A
	NB Loop On	1	900	390	.43	A	370	.41	A
	SB Off	2	2,250	1,120	.50	A	1,280	.57	A
	NB Off	1	1,500	460	.31	A	780	.52	A
I-5 at Hermosa	SB On	1	1,080	420	.39	A	1,030	.95	E
	NB Direct On	1	1,500	1,140	.76	C	840	.56	A
	NB Loop On	1	1,080	140	.13	A	240	.22	A
	SB Off	1	1,500	1,120	.75	C	1,230	.82	D
	NB Off	1	1,500	830	.55	A	600	.40	A
I-5 at Pico	SB Direct On	1	1,500	130	.09	A	370	.25	A
	SB Loop On	1	1,500	800	.53	A	1,330	.89	D
	NB Direct On	1	1,500	910	.61	B	1,070	.71	C
	NB Loop On	1	1,500	220	.15	A	280	.19	A
	SB Off	2	2,250	1,320	.59	A	840	.37	A
	NB Off	2	2,250	1,140	.51	A	1,610	.72	C
I-5 at El Camino Real	SB On	1	1,500	90	.06	A	160	.11	A
	NB Direct On	1	1,500	410	.27	A	240	.16	A
	NB Loop On	1	1,500	210	.14	A	160	.11	A
	SB Off	1	1,500	470	.31	A	870	.58	A
	NB Off	1	1,500	100	.07	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	170	.11	A	220	.15	A
	SB Off	1	1,500	160	.11	A	150	.10	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A

Table E-39 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIP ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 73 at Greenfield	SB On	1	1,500	250	.17	A	180	.12	A
	NB On	1	1,500	1,150	.77	C	620	.41	A
	SB Off	1	1,500	560	.37	A	940	.63	B
	NB Off	1	1,500	280	.19	A	200	.13	A
SR 241 at Santa Margarita	SB On	1	1,500	50	.03	A	50	.03	A
	NB On	1	1,500	3,190	2.13	F	1,230	.82	D
	SB Off	1	1,500	930	.62	B	2,170	1.45	F
	NB Off	1	1,500	30	.02	A	20	.01	A
SR 241 at Antonio	SB On	1	1,500	50	.03	A	60	.04	A
	NB On (toll) (a)	1	1,500	2,450	1.63	F	580	.39	A
	With Mitigation	2	3,000	2,450	.82	D	580	.19	A
	SB Off (toll) (a)	1	1,500	470	.31	A	1,670	1.11	F
	With Mitigation	2	3,000	470	.16	A	1,670	.56	A
	NB Off	1	1,500	80	.05	A	40	.03	A
SR 241 at Oso	NB On (toll) (a)	1	1,500	1,950	1.30	F	240	.16	A
	With Mitigation	2	3,000	1,950	.65	B	240	.08	A
	SB Off (toll)	1	1,500	150	.10	A	1,120	.75	C

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table E-40
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIP ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	200	.19	A	210	.19	A
	SB Loop On	1	1,080	700	.65	B	720	.67	B
	NB Direct On	1	1,500	1,310	.87	D	770	.51	A
	NB Loop On	1	1,500	1,610	1.07	F	520	.35	A
	SB Off	2	3,000	1,720	.57	A	2,480	.83	D
	NB Off	1	1,500	220	.15	A	890	.59	A
I-5 at La Paz	SB Direct On	1	1,080	140	.13	A	250	.23	A
	SB Loop On	1	1,080	290	.27	A	480	.44	A
	NB Direct On	1	1,500	600	.40	A	240	.16	A
	NB Loop On	1	1,080	370	.34	A	350	.32	A
	SB Off	1	1,500	730	.49	A	1,140	.76	C
	NB Off	1	1,500	1,090	.73	C	680	.45	A
I-5 at Oso	SB Direct On	1	1,080	440	.41	A	770	.71	C
	SB Loop On	1	1,080	620	.57	A	330	.31	A
	NB Direct On	1	1,500	1,500	1.00	E	820	.55	A
	NB Loop On	1	1,500	340	.23	A	500	.33	A
	SB Off	2	2,250	1,210	.54	A	1,470	.65	B
	NB Off	2	2,250	1,000	.44	A	900	.40	A
I-5 at Crown Valley ¹	SB Direct On	1	1,500	280	.19	A	520	.35	A
	SB Loop On	1	1,500	420	.28	A	570	.38	A
	NB Direct On	1	1,500	1,570	1.05	F	1,810	1.21	F
	NB Loop On	1	1,080	720	.67	B	900	.83	D
	SB Off	2	2,250	1,910	.85	D	3,490	1.55	F
	NB Off	1	1,500	1,230	.82	D	600	.40	A
I-5 at Avery	SB On	1	1,080	460	.43	A	460	.43	A
	NB On	1	1,500	850	.57	A	830	.55	A
	SB Off	1	1,500	720	.48	A	980	.65	B
	NB Off	1	1,500	690	.46	A	790	.53	A
I-5 at Junipero Serra	SB On	1	1,080	590	.55	A	620	.57	A
	NB On	1	1,500	1,460	.97	E	950	.63	B
	SB Off	1	1,500	810	.54	A	1,350	.90	D
	NB Off	1	1,500	420	.28	A	480	.32	A
I-5 at Ortega ¹	SB Direct On	1	1,500	170	.11	A	250	.17	A
	SB Loop On	1	1,500	190	.13	A	170	.11	A
	NB Direct On	1	1,500	1,720	1.15	F	1,360	.91	E
	NB Loop On	1	1,500	800	.53	A	750	.50	A
	SB Off (a)	2	2,250	2,080	.92	E	2,800	1.24	F
	<i>With Mitigation</i>	2	3,000	2,080	.69	B	2,800	.93	E
	NB Off	2	2,250	720	.32	A	710	.32	A
I-5 at Camino Capistrano	SB On	1	1,500	640	.43	A	580	.39	A
	NB On	1	1,500	940	.63	B	520	.35	A
	SB Off	2	2,250	990	.44	A	1,630	.72	C
	NB Off	1	1,500	520	.35	A	710	.47	A

Table E-40 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIP ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Stonehill	NB On (a)	1	1,500	1,050	.70	B	1,700	1.13	F
	With Mitigation	2	1,800	1,050	.58	A	1,700	.94	E
I-5 at PCH/Las Ramblas	SB Direct On	1	1,500	980	.65	B	1,140	.76	C
	SB Loop On	1	1,500	170	.11	A	90	.06	A
	NB Direct On	1	900	400	.44	A	170	.19	A
	NB Loop On	1	1,500	370	.25	A	230	.15	A
	SB Off	2	2,250	770	.34	A	1,020	.45	A
	NB Off	2	2,250	100	.04	A	190	.08	A
I-5 at Estrella	SB On	1	1,500	700	.47	A	630	.42	A
	NB Direct On	1	1,500	920	.61	B	820	.55	A
	NB Loop On	1	900	390	.43	A	420	.47	A
	SB Off	2	2,250	1,190	.53	A	1,310	.58	A
	NB Off	1	1,500	490	.33	A	760	.51	A
I-5 at Hermosa	SB On	1	1,080	500	.46	A	1,070	.99	E
	NB Direct On	1	1,500	1,150	.77	C	1,080	.72	C
	NB Loop On	1	1,080	110	.10	A	230	.21	A
	SB Off	1	1,500	1,140	.76	C	1,120	.75	C
	NB Off	1	1,500	920	.61	B	710	.47	A
I-5 at Pico	SB Direct On	1	1,500	120	.08	A	370	.25	A
	SB Loop On	1	1,500	740	.49	A	1,410	.94	E
	NB Direct On	1	1,500	870	.58	A	910	.61	B
	NB Loop On	1	1,500	220	.15	A	280	.19	A
	SB Off	2	2,250	1,400	.62	B	940	.42	A
	NB Off	2	2,250	1,170	.52	A	1,500	.67	B
I-5 at El Camino Real	SB On	1	1,500	120	.08	A	200	.13	A
	NB Direct On	1	1,500	410	.27	A	290	.19	A
	NB Loop On	1	1,500	210	.14	A	150	.10	A
	SB Off	1	1,500	460	.31	A	870	.58	A
	NB Off	1	1,500	90	.06	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	170	.11	A	220	.15	A
	SB Off	1	1,500	160	.11	A	140	.09	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A
SR 73 at Greenfield	SB On	1	1,500	250	.17	A	190	.13	A
	NB On	1	1,500	1,120	.75	C	670	.45	A
	SB Off	1	1,500	570	.38	A	1,020	.68	B
	NB Off	1	1,500	270	.18	A	200	.13	A

Table E-40 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – AIP ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Santa Margarita	SB On	1	1,500	40	.03	A	50	.03	A
	NB On	1	1,500	3,350	2.23	F	1,270	.85	D
	SB Off	1	1,500	930	.62	B	2,290	1.53	F
	NB Off	1	1,500	30	.02	A	30	.02	A
SR 241 at Antonio	SB On	1	1,500	60	.04	A	70	.05	A
	NB On (toll)	1	1,500	2,490	1.66	F	530	.35	A
	SB Off (toll) (a)	1	1,500	430	.29	A	1,610	1.07	F
	With Mitigation	2	3,000	430	.14	A	1,610	.54	A
	NB Off	1	1,500	90	.06	A	60	.04	A
SR 241 at Oso	NB On (toll) (a)	1	1,500	3,340	2.23	F	680	.45	A
	With Mitigation	2	3,000	3,340	1.11	F	680	.23	A
	SB Off (toll) (a)	1	1,500	260	.17	A	2,390	1.59	F
	With Mitigation	2	3,000	260	.09	A	2,390	.80	C

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table E-41 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – I-5 ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	210	.19	A	240	.22	A
	SB Loop On	1	1,080	780	.72	C	900	.83	D
	NB Direct On	1	1,500	1,440	.96	E	890	.59	A
	NB Loop On	1	1,500	1,570	1.05	F	560	.37	A
	SB Off	2	3,000	1,930	.64	B	2,540	.85	D
	NB Off	1	1,500	420	.28	A	1,000	.67	B
I-5 at La Paz	SB Direct On	1	1,080	170	.16	A	260	.24	A
	SB Loop On	1	1,080	350	.32	A	590	.55	A
	NB Direct On	1	1,500	610	.41	A	290	.19	A
	NB Loop On	1	1,080	410	.38	A	370	.34	A
	SB Off	1	1,500	730	.49	A	1,230	.82	D
	NB Off	1	1,500	780	.52	A	840	.56	A
I-5 at Oso	SB Direct On	1	1,080	420	.39	A	870	.81	D
	SB Loop On	1	1,080	790	.73	C	430	.40	A
	NB Direct On	1	1,500	1,300	.87	D	810	.54	A
	NB Loop On	1	1,500	310	.21	A	790	.53	A
	SB Off	2	2,250	1,200	.53	A	2,110	.94	E
	NB Off	2	2,250	830	.37	A	1,200	.53	A
I-5 at Crown Valley ¹	SB Direct On	1	1,500	310	.21	A	470	.31	A
	SB Loop On	1	1,500	590	.39	A	710	.47	A
	NB Direct On (a)	1	1,500	1,590	1.06	F	1,780	1.19	F
	With Mitigation	2	1,800	1,590	.88	D	1,780	.99	E
	NB Loop On	1	1,080	800	.74	C	1,010	.94	E
	SB Off	2	2,250	2,250	1.00	E	3,040	1.35	F
I-5 at Avery	NB Off	1	1,500	1,450	.97	E	960	.64	B
	SB On	1	1,080	680	.63	B	610	.56	A
	NB On	1	1,500	890	.59	A	850	.57	A
	SB Off	1	1,500	760	.51	A	1,180	.79	C
	NB Off	1	1,500	840	.56	A	870	.58	A
	SB On	1	1,080	400	.37	A	600	.56	A
I-5 at Junipero Serra	NB On	1	1,500	1,050	.70	B	900	.60	A
	SB Off	1	1,500	820	.55	A	880	.59	A
	NB Off	1	1,500	390	.26	A	360	.24	A
	SB On	1	1,080	400	.37	A	600	.56	A
I-5 at Ortega ¹	NB On	1	1,500	390	.26	A	360	.24	A
	SB Direct On	1	1,500	180	.12	A	290	.19	A
	SB Loop On	1	1,500	510	.34	A	430	.29	A
	NB Direct On	1	1,500	1,370	.91	E	1,070	.71	C
	NB Loop On	1	1,500	860	.57	A	880	.59	A
	SB Off (a)	2	2,250	2,170	.96	E	2,530	1.12	F
With Mitigation	2	3,000	2,170	.72	C	2,530	.84	D	
I-5 at Camino Capistrano	NB Off	2	2,250	1,020	.45	A	910	.40	A
	SB On	1	1,500	720	.48	A	680	.45	A
	NB On	1	1,500	960	.64	B	540	.36	A
	SB Off	2	2,250	1,100	.49	A	1,670	.74	C
NB Off	1	1,500	650	.43	A	870	.58	A	

Table E-41 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – I-5 ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Stonehill	NB On (a)	1	1,500	1,180	.79	C	1,910	1.27	F
	With Mitigation	2	1,800	1,180	.66	B	1,910	1.06	F
I-5 at PCH/Las Ramblas	SB Direct On	1	1,500	820	.55	A	1,300	.87	D
	SB Loop On	1	1,500	220	.15	A	260	.17	A
	NB Direct On	1	900	340	.38	A	200	.22	A
	NB Loop On	1	1,500	450	.30	A	280	.19	A
	SB Off	2	2,250	880	.39	A	1,010	.45	A
	NB Off	2	2,250	210	.09	A	260	.12	A
I-5 at Estrella	SB On	1	1,500	830	.55	A	900	.60	A
	NB Direct On	1	1,500	1,220	.81	D	1,070	.71	C
	NB Loop On	1	900	400	.44	A	360	.40	A
	SB Off	2	2,250	1,210	.54	A	1,510	.67	B
	NB Off	1	1,500	580	.39	A	910	.61	B
I-5 at Hermosa	SB On	1	1,080	220	.20	A	390	.36	A
	NB Direct On (a)	1	1,500	1,610	1.07	F	1,490	.99	E
	With Mitigation	2	1,800	1,610	.89	D	1,490	.83	D
	NB Loop On	1	1,080	150	.14	A	260	.24	A
	SB Off (a)	1	1,500	1,730	1.15	F	2,000	1.33	F
	With Mitigation	2	2,250	1,730	.77	C	2,000	.89	D
I-5 at Pico	NB Off	1	1,500	310	.21	A	330	.22	A
	SB Direct On	1	1,500	140	.09	A	310	.21	A
	SB Loop On	1	1,500	440	.29	A	920	.61	B
	NB Direct On (a)	1	1,500	1,510	1.01	F	1,520	1.01	F
	With Mitigation	2	1,800	1,510	.84	D	1,520	.84	D
	NB Loop On	1	1,500	310	.21	A	300	.20	A
	SB Off	2	2,250	1,790	.80	C	1,460	.65	B
I-5 at El Camino Real	NB Off	2	2,250	780	.35	A	1,070	.48	A
	SB On	1	1,500	100	.07	A	200	.13	A
	NB Direct On	1	1,500	340	.23	A	230	.15	A
	NB Loop On	1	1,500	280	.19	A	190	.13	A
	SB Off	1	1,500	490	.33	A	930	.62	B
I-5 at Cristianitos	NB Off	1	1,500	80	.05	A	190	.13	A
	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	210	.14	A	280	.19	A
	SB Off	1	1,500	160	.11	A	210	.14	A
I-5 at Basilone	NB Off	1	1,500	290	.19	A	180	.12	A
	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
SR 73 at Greenfield	NB Off	1	1,500	330	.22	A	120	.08	A
	SB On	1	1,500	390	.26	A	280	.19	A
	NB On	1	1,500	1,010	.67	B	550	.37	A
	SB Off	1	1,500	480	.32	A	850	.57	A
NB Off	1	1,500	400	.27	A	390	.26	A	

Table E-41 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – I-5 ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 241 at Santa Margarita	SB On	1	1,500	50	.03	A	60	.04	A
	NB On	1	1,500	3,190	2.13	F	1,190	.79	C
	SB Off	1	1,500	910	.61	B	2,140	1.43	F
	NB Off	1	1,500	40	.03	A	30	.02	A
SR 241 at Antonio	SB On	1	1,500	40	.03	A	50	.03	A
	NB On (toll)	1	1,500	2,310	1.54	F	420	.28	A
	SB Off (toll)	1	1,500	360	.24	A	1,420	.95	E
	NB Off	1	1,500	80	.05	A	30	.02	A
SR 241 at Oso	NB On (toll)	1	1,500	1,440	.96	E	180	.12	A
	SB Off (toll)	1	1,500	120	.08	A	800	.53	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table E-42
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	210	.19	A	250	.23	A
	SB Loop On	1	1,080	720	.67	B	890	.82	D
	NB Direct On	1	1,500	1,490	.99	E	890	.59	A
	NB Loop On	1	1,500	1,560	1.04	F	570	.38	A
	SB Off	2	3,000	1,930	.64	B	2,570	.86	D
	NB Off	1	1,500	430	.29	A	940	.63	B
I-5 at La Paz	SB Direct On	1	1,080	160	.15	A	260	.24	A
	SB Loop On	1	1,080	290	.27	A	580	.54	A
	NB Direct On	1	1,500	610	.41	A	280	.19	A
	NB Loop On	1	1,080	360	.33	A	340	.31	A
	SB Off	1	1,500	720	.48	A	1,180	.79	C
	NB Off	1	1,500	760	.51	A	790	.53	A
I-5 at Oso	SB Direct On	1	1,080	430	.40	A	870	.81	D
	SB Loop On	1	1,080	720	.67	B	390	.36	A
	NB Direct On	1	1,500	1,300	.87	D	830	.55	A
	NB Loop On	1	1,500	310	.21	A	750	.50	A
	SB Off	2	2,250	1,180	.52	A	2,050	.91	E
	NB Off	2	2,250	790	.35	A	1,060	.47	A
I-5 at Crown Valley ¹	SB Direct On	1	1,500	270	.18	A	470	.31	A
	SB Loop On	1	1,500	450	.30	A	640	.43	A
	NB Direct On (a)	1	1,500	1,620	1.08	F	1,720	1.15	F
	With Mitigation	2	1,800	1,620	.90	D	1,720	.96	E
	NB Loop On	1	1,080	800	.74	C	940	.87	D
	SB Off (a)	2	2,250	2,170	.96	E	3,140	1.40	F
	With Mitigation	2	3,000	2,170	.72	C	3,140	1.05	F
I-5 at Avery	SB On	1	1,080	490	.45	A	580	.54	A
	NB On	1	1,500	930	.62	B	860	.57	A
	SB Off	1	1,500	770	.51	A	1,260	.84	D
	NB Off	1	1,500	780	.52	A	810	.54	A
I-5 at Junipero Serra	SB On	1	1,080	630	.58	A	630	.58	A
	NB On	1	1,500	1,120	.75	C	910	.61	B
	SB Off	1	1,500	800	.53	A	1,100	.73	C
	NB Off	1	1,500	470	.31	A	580	.39	A
I-5 at Ortega ¹	SB Direct On	1	1,500	170	.11	A	260	.17	A
	SB Loop On	1	1,500	300	.20	A	280	.19	A
	NB Direct On	1	1,500	1,620	1.08	F	1,170	.78	C
	NB Loop On	1	1,500	760	.51	A	800	.53	A
	SB Off (a)	2	2,250	2,130	.95	E	2,580	1.15	F
	With Mitigation	2	3,000	2,130	.71	C	2,580	.86	D
NB Off	2	2,250	830	.37	A	740	.33	A	

Table E-42 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – I-5 ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Camino Capistrano	SB On	1	1,500	660	.44	A	570	.38	A
	NB On	1	1,500	1,000	.67	B	530	.35	A
	SB Off	2	2,250	1,040	.46	A	1,670	.74	C
	NB Off	1	1,500	560	.37	A	780	.52	A
I-5 at Stonehill	NB On (a)	1	1,500	1,200	.80	C	1,850	1.23	F
	<i>With Mitigation</i>	2	1,800	1,200	.67	B	1,850	1.03	F
I-5 at PCH/Las Ramblas	SB Direct On	1	1,500	990	.66	B	1,250	.83	D
	SB Loop On	1	1,500	170	.11	A	140	.09	A
	NB Direct On	1	900	380	.42	A	190	.21	A
	NB Loop On	1	1,500	480	.32	A	290	.19	A
	SB Off	2	2,250	820	.36	A	1,100	.49	A
	NB Off	2	2,250	150	.07	A	240	.11	A
I-5 at Estrella	SB On	1	1,500	740	.49	A	730	.49	A
	NB Direct On	1	1,500	1,020	.68	B	870	.58	A
	NB Loop On	1	900	440	.49	A	380	.42	A
	SB Off	2	2,250	1,160	.52	A	1,360	.60	A
	NB Off	1	1,500	480	.32	A	850	.57	A
I-5 at Hermosa	SB On	1	1,080	350	.32	A	890	.82	D
	NB Direct On	1	1,500	1,290	.86	D	1,010	.67	B
	NB Loop On	1	1,080	220	.20	A	300	.28	A
	SB Off	1	1,500	1,330	.89	D	1,490	.99	E
	NB Off	1	1,500	680	.45	A	570	.38	A
I-5 at Pico	SB Direct On	1	1,500	120	.08	A	250	.17	A
	SB Loop On	1	1,500	700	.47	A	850	.57	A
	NB Direct On	1	1,500	1,240	.83	D	1,370	.91	E
	NB Loop On	1	1,500	220	.15	A	280	.19	A
	SB Off	2	2,250	1,450	.64	B	1,100	.49	A
	NB Off	2	2,250	700	.31	A	1,140	.51	A
I-5 at El Camino Real	SB On	1	1,500	110	.07	A	180	.12	A
	NB Direct On	1	1,500	390	.26	A	210	.14	A
	NB Loop On	1	1,500	240	.16	A	180	.12	A
	SB Off	1	1,500	520	.35	A	900	.60	A
	NB Off	1	1,500	100	.07	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	210	.14	A	260	.17	A
	SB Off	1	1,500	160	.11	A	200	.13	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A

Table E-42 (cont)
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	200	.13	A
	NB On	1	1,500	1,030	.69	B	580	.39	A
	SB Off	1	1,500	490	.33	A	890	.59	A
	NB Off	1	1,500	300	.20	A	220	.15	A
SR 241 at Santa Margarita	SB On	1	1,500	40	.03	A	50	.03	A
	NB On	1	1,500	3,180	2.12	F	1,190	.79	C
	SB Off	1	1,500	910	.61	B	2,160	1.44	F
	NB Off	1	1,500	30	.02	A	30	.02	A
SR 241 at Antonio	SB On	1	1,500	40	.03	A	60	.04	A
	NB On (toll)	1	1,500	2,340	1.56	F	430	.29	A
	SB Off (toll)	1	1,500	370	.25	A	1,430	.95	E
	NB Off	1	1,500	80	.05	A	30	.02	A
SR 241 at Oso	NB On (toll)	1	1,500	1,420	.95	E	180	.12	A
	SB Off (toll)	1	1,500	130	.09	A	750	.50	A

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table E-43
2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Alicia	SB Direct On	1	1,080	220	.20	A	240	.22	A
	SB Loop On	1	1,080	720	.67	B	970	.90	D
	NB Direct On	1	1,500	1,560	1.04	F	840	.56	A
	NB Loop On	1	1,500	1,610	1.07	F	560	.37	A
	SB Off	2	3,000	1,920	.64	B	2,630	.88	D
	NB Off	1	1,500	420	.28	A	910	.61	B
I-5 at La Paz	SB Direct On	1	1,080	160	.15	A	280	.26	A
	SB Loop On	1	1,080	290	.27	A	540	.50	A
	NB Direct On	1	1,500	650	.43	A	280	.19	A
	NB Loop On	1	1,080	390	.36	A	370	.34	A
	SB Off	1	1,500	720	.48	A	1,280	.85	D
	NB Off	1	1,500	670	.45	A	850	.57	A
I-5 at Oso	SB Direct On	1	1,080	410	.38	A	700	.65	B
	SB Loop On	1	1,080	710	.66	B	430	.40	A
	NB Direct On	1	1,500	1,430	.95	E	810	.54	A
	NB Loop On	1	1,500	250	.17	A	690	.46	A
	SB Off	2	2,250	1,040	.46	A	1,290	.57	A
	NB Off	2	2,250	910	.40	A	1,190	.53	A
I-5 at Crown Valley ¹	SB Direct On	1	1,500	270	.18	A	490	.33	A
	SB Loop On	1	1,500	470	.31	A	670	.45	A
	NB Direct On (a)	1	1,500	1,740	1.16	F	1,990	1.33	F
	With Mitigation	2	1,800	1,740	.97	E	1,990	1.11	F
	NB Loop On	1	1,080	780	.72	C	980	.91	E
	SB Off (a)	2	2,250	2,290	1.02	F	4,160	1.85	F
	With Mitigation	2	3,000	2,290	.76	C	4,160	1.39	F
I-5 at Avery	SB On	1	1,080	490	.45	A	570	.53	A
	NB On	1	1,500	950	.63	B	940	.63	B
	SB Off	1	1,500	780	.52	A	1,040	.69	B
	NB Off	1	1,500	790	.53	A	860	.57	A
I-5 at Junipero Serra	SB On	1	1,080	630	.58	A	650	.60	A
	NB On	1	1,500	1,310	.87	D	910	.61	B
	SB Off	1	1,500	820	.55	A	1,150	.77	C
	NB Off	1	1,500	480	.32	A	570	.38	A
I-5 at Ortega ¹	SB Direct On	1	1,500	190	.13	A	270	.18	A
	SB Loop On	1	1,500	330	.22	A	260	.17	A
	NB Direct On	1	1,500	1,670	1.11	F	1,360	.91	E
	NB Loop On	1	1,500	780	.52	A	830	.55	A
	SB Off (a)	2	2,250	2,150	.96	E	2,740	1.22	F
	With Mitigation	2	3,000	2,150	.72	C	2,740	.91	E
NB Off	2	2,250	800	.36	A	830	.37	A	

Table E-43 (cont) 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – I-5 ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)									
Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
I-5 at Camino Capistrano	SB On	1	1,500	720	.48	A	630	.42	A
	NB On	1	1,500	1,120	.75	C	590	.39	A
	SB Off	2	2,250	1,010	.45	A	1,900	.84	D
	NB Off	1	1,500	570	.38	A	810	.54	A
I-5 at Stonehill	NB On (a)	1	1,500	1,170	.78	C	1,860	1.24	F
	<i>With Mitigation</i>	2	1,800	1,170	.65	B	1,860	1.03	F
I-5 at PCH/Las Ramblas	SB Direct On	1	1,500	1,000	.67	B	1,250	.83	D
	SB Loop On	1	1,500	250	.17	A	130	.09	A
	NB Direct On	1	900	490	.54	A	210	.23	A
	NB Loop On	1	1,500	460	.31	A	290	.19	A
	SB Off	2	2,250	830	.37	A	1,240	.55	A
	NB Off	2	2,250	130	.06	A	220	.10	A
I-5 at Estrella	SB On	1	1,500	710	.47	A	680	.45	A
	NB Direct On	1	1,500	1,000	.67	B	930	.62	B
	NB Loop On	1	900	430	.48	A	430	.48	A
	SB Off	2	2,250	1,220	.54	A	1,410	.63	B
	NB Off	1	1,500	480	.32	A	820	.55	A
I-5 at Hermosa	SB On	1	1,080	350	.32	A	920	.85	D
	NB Direct On	1	1,500	1,300	.87	D	1,240	.83	D
	NB Loop On	1	1,080	210	.19	A	300	.28	A
	SB Off	1	1,500	1,390	.93	E	1,480	.99	E
	NB Off	1	1,500	760	.51	A	590	.39	A
I-5 at Pico	SB Direct On	1	1,500	110	.07	A	210	.14	A
	SB Loop On	1	1,500	590	.39	A	920	.61	B
	NB Direct On	1	1,500	1,160	.77	C	1,250	.83	D
	NB Loop On	1	1,500	230	.15	A	270	.18	A
	SB Off	2	2,250	1,550	.69	B	1,130	.50	A
	NB Off	2	2,250	710	.32	A	1,080	.48	A
I-5 at El Camino Real	SB On	1	1,500	130	.09	A	220	.15	A
	NB Direct On	1	1,500	390	.26	A	240	.16	A
	NB Loop On	1	1,500	250	.17	A	200	.13	A
	SB Off	1	1,500	530	.35	A	930	.62	B
	NB Off	1	1,500	80	.05	A	190	.13	A
I-5 at Cristianitos	SB On	1	1,500	120	.08	A	250	.17	A
	NB On	1	1,500	210	.14	A	280	.19	A
	SB Off	1	1,500	160	.11	A	190	.13	A
	NB Off	1	1,500	290	.19	A	180	.12	A
I-5 at Basilone	SB On	1	1,500	60	.04	A	380	.25	A
	NB On	1	1,500	250	.17	A	570	.38	A
	SB Off	1	1,500	380	.25	A	320	.21	A
	NB Off	1	1,500	330	.22	A	120	.08	A

Table E-43 (cont)
 2025 FREEWAY/TOLLWAY RAMP LOS SUMMARY – I-5 ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Interchange	Ramp	Lanes	Peak Hour Capacity	AM Peak Hour			PM Peak Hour		
				Volume	V/C	LOS	Volume	V/C	LOS
SR 73 at Greenfield	SB On	1	1,500	260	.17	A	200	.13	A
	NB On	1	1,500	1,060	.71	C	620	.41	A
	SB Off	1	1,500	500	.33	A	840	.56	A
	NB Off	1	1,500	290	.19	A	220	.15	A
SR 241 at Santa Margarita	SB On	1	1,500	40	.03	A	50	.03	A
	NB On	1	1,500	3,310	2.21	F	1,240	.83	D
	SB Off	1	1,500	900	.60	A	2,230	1.49	F
	NB Off	1	1,500	30	.02	A	30	.02	A
SR 241 at Antonio	SB On	1	1,500	60	.04	A	60	.04	A
	NB On (toll)	1	1,500	2,460	1.64	F	420	.28	A
	SB Off (toll)	1	1,500	340	.23	A	1,540	1.03	F
	NB Off	1	1,500	70	.05	A	60	.04	A
SR 241 at Oso	NB On (toll)	1	1,500	2,590	1.73	F	410	.27	A
	SB Off (toll)	1	1,500	240	.16	A	1,630	1.09	F

¹ Congestion Management Program (CMP) freeway interchange location.

Abbreviations: NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

APPENDIX F

**INTERSECTION LANE CONFIGURATION, PEAK HOUR ICU
 AND INTERSECTION DELAY SUMMARIES**

This appendix summarizes information pertaining to the existing and long-range (year 2025) intersection analysis portion of the SOCTIIP traffic and circulation analysis. Existing and future intersection location reference maps are provided at the beginning of this appendix, followed by a summary of existing and future lane geometric configurations for the intersections that are analyzed. Existing and long-range (year 2025) AM and PM peak hour intersection capacity utilization (ICU) summaries are then provided. Year 2025 ICU summary tables are included for the SOCTIIP No Action Alternative and the SOCTIIP Build Alternative scenarios that were analyzed. For intersections that are adversely impacted by the various Build Alternatives, ICU values with and without intersection mitigation are included in the summary tables. Summaries of the hours of vehicle delay forecast at each intersection location based on year 2025 conditions are provided at the end of this appendix.

The illustrations and summary tables that are included in this appendix are listed below.

LIST OF FIGURES

Figure	Page
F-1 Existing Intersection Location Map	F-7
F-2 2025 Intersection Location Map – No Action, AIO, AIP and I-5 Alternatives (Proposed RMV Plan)	F-8
F-3 2025 Intersection Location Map – No Action, AIO, AIP and I-5 Alternatives (OCP-2000 for RMV).....	F-9
F-4 2025 Intersection Location Map – FEC Alternatives (Proposed RMV Plan)	F-10
F-5 2025 Intersection Location Map – FEC Alternatives (OCP-2000 for RMV).....	F-11
F-6 2025 Intersection Location Map – FEC-TV Alternatives (Proposed RMV Plan).....	F-12
F-7 2025 Intersection Location Map – FEC-TV Alternatives (OCP-2000 for RMV).....	F-13
F-8 2025 Intersection Location Map – FEC-CV Alternatives (Proposed RMV Plan).....	F-14
F-9 2025 Intersection Location Map – FEC-OHV Alternatives (Proposed RMV Plan)...	F-15
F-10 2025 Intersection Location Map – FEC-APV Alternatives (Proposed RMV Plan) ...	F-16
F-11 2025 Intersection Location Map – CC Alternatives (Proposed RMV Plan)	F-17
F-12 2025 Intersection Location Map – CC Alternatives (OCP-2000 for RMV)	F-18
F-13 2025 Intersection Location Map – CC-ALPV Alternatives (Proposed RMV Plan)...	F-19
F-14 2025 Intersection Location Map – CC-OHV Alternatives (Proposed RMV Plan).....	F-20
F-15 2025 Intersection Location Map – A7C Alternatives (Proposed RMV Plan)	F-21
F-16 2025 Intersection Location Map – A7C Alternatives (OCP-2000 for RMV)	F-22
F-17 2025 Intersection Location Map – A7C-FECV Alternatives (Proposed RMV Plan) .	F-23
F-18 2025 Intersection Location Map – A7C-FECV Alternatives (OCP-2000 for RMV) .	F-24
F-19 2025 Intersection Location Map – A7C-FECV-C Alternatives (Proposed RMV Plan).....	F-25

LIST OF TABLES

Table	Page
F-1 Existing and Future Intersection Lane Geometrics	F-26
F-2 Existing ICU Summary	F-40
F-3 2025 ICU Summary – No Action Alternative (Committed Circulation System with Proposed RMV Plan).....	F-43
F-4 2025 ICU Summary – No Action Alternative (Committed Circulation System with OCP-2000 for RMV).....	F-46
F-5 2025 ICU Summary – No Action Alternative (Committed Circulation System with Existing General Plan for RMV)	F-49
F-6 2025 ICU Summary – No Action Alternative (Committed Circulation System with No Future Development in RMV)	F-52
F-7 2025 ICU Summary – No Action Alternative (Buildout Circulation System with Proposed RMV Plan).....	F-55
F-8 2025 ICU Summary – No Action Alternative (Buildout Circulation System with OCP-2000 for RMV).....	F-58
F-9 2025 ICU Summary – FEC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-61
F-10 2025 ICU Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-64
F-11 2025 ICU Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	F-67
F-12 2025 ICU Summary – FEC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	F-70
F-13 2025 ICU Summary – FEC-TV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-73
F-14 2025 ICU Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-76
F-15 2025 ICU Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	F-79
F-16 2025 ICU Summary – FEC-CV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-82
F-17 2025 ICU Summary – FEC-CV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-85
F-18 2025 ICU Summary – FEC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-88
F-19 2025 ICU Summary – FEC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-91
F-20 2025 ICU Summary – FEC-APV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-94
F-21 2025 ICU Summary – FEC-APV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-97

LIST OF TABLES

Table	Page
F-22 2025 ICU Summary – CC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-100
F-23 2025 ICU Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-103
F-24 2025 ICU Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	F-106
F-25 2025 ICU Summary – CC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	F-109
F-26 2025 ICU Summary – CC-ALPV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-112
F-27 2025 ICU Summary – CC-ALPV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-115
F-28 2025 ICU Summary – CC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-118
F-29 2025 ICU Summary – CC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-121
F-30 2025 ICU Summary – A7C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-124
F-31 2025 ICU Summary – A7C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-127
F-32 2025 ICU Summary – A7C-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	F-130
F-33 2025 ICU Summary – A7C-FECV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-133
F-34 2025 ICU Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-136
F-35 2025 ICU Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	F-139
F-36 2025 ICU Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-142
F-37 2025 ICU Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-145
F-38 2025 ICU Summary – AIO Alternative (Buildout Circulation System with Proposed RMV Plan).....	F-148
F-39 2025 ICU Summary – AIO Alternative (Buildout Circulation System with OCP-2000 for RMV).....	F-152
F-40 2025 ICU Summary – AIP Alternative (Buildout Circulation System with Proposed RMV Plan).....	F-156
F-41 2025 ICU Summary – AIP Alternative (Buildout Circulation System with OCP-2000 for RMV).....	F-160

LIST OF TABLES

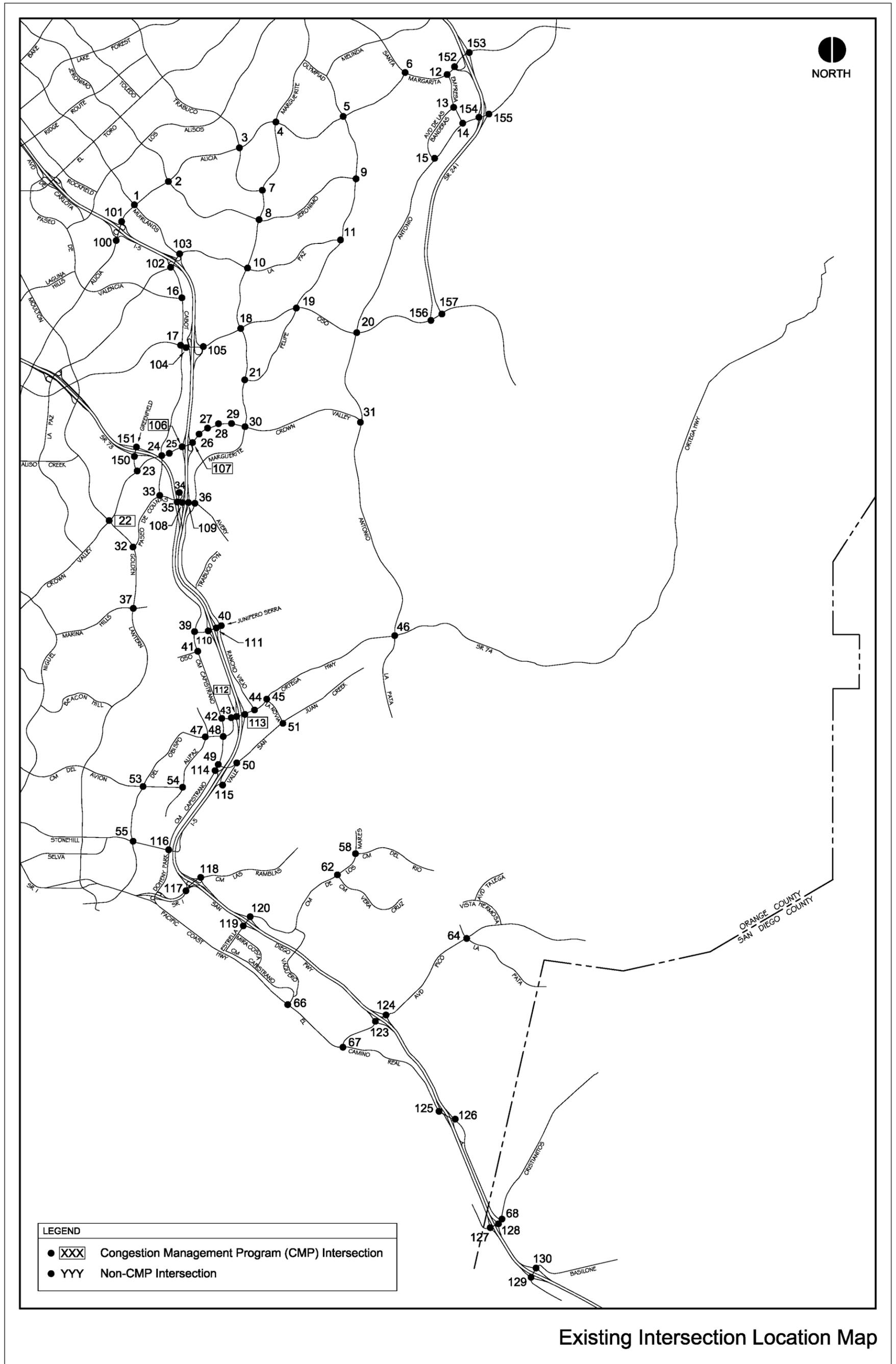
Table	Page
F-42 2025 ICU Summary – I-5 Alternative (Committed Circulation System with Proposed RMV Plan).....	F-164
F-43 2025 ICU Summary – I-5 Alternative (Buildout Circulation System with Proposed RMV Plan).....	F-167
F-44 2025 ICU Summary – I-5 Alternative (Buildout Circulation System with OCP-2000 for RMV).....	F-170
F-45 2025 Intersection Delay Summary – No Action Alternative (Committed Circulation System with Proposed RMV Plan).....	F-173
F-46 2025 Intersection Delay Summary – No Action Alternative (Committed Circulation System with OCP-2000 for RMV).....	F-176
F-47 2025 Intersection Delay Summary – No Action Alternative (Committed Circulation System with Existing General Plan for RMV).....	F-179
F-48 2025 Intersection Delay Summary – No Action Alternative (Committed Circulation System with No Future Development in RMV).....	F-182
F-49 2025 Intersection Delay Summary – No Action Alternative (Buildout Circulation System with Proposed RMV Plan).....	F-185
F-50 2025 Intersection Delay Summary – No Action Alternative (Buildout Circulation System with OCP-2000 for RMV).....	F-188
F-51 2025 Intersection Delay Summary – FEC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-191
F-52 2025 Intersection Delay Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-194
F-53 2025 Intersection Delay Summary – FEC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	F-197
F-54 2025 Intersection Delay Summary – FEC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV).....	F-200
F-55 2025 Intersection Delay Summary – FEC-TV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-203
F-56 2025 Intersection Delay Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-206
F-57 2025 Intersection Delay Summary – FEC-TV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	F-209
F-58 2025 Intersection Delay Summary – FEC-CV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-212
F-59 2025 Intersection Delay Summary – FEC-CV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-215
F-60 2025 Intersection Delay Summary – FEC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-218
F-61 2025 Intersection Delay Summary – FEC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-221

LIST OF TABLES

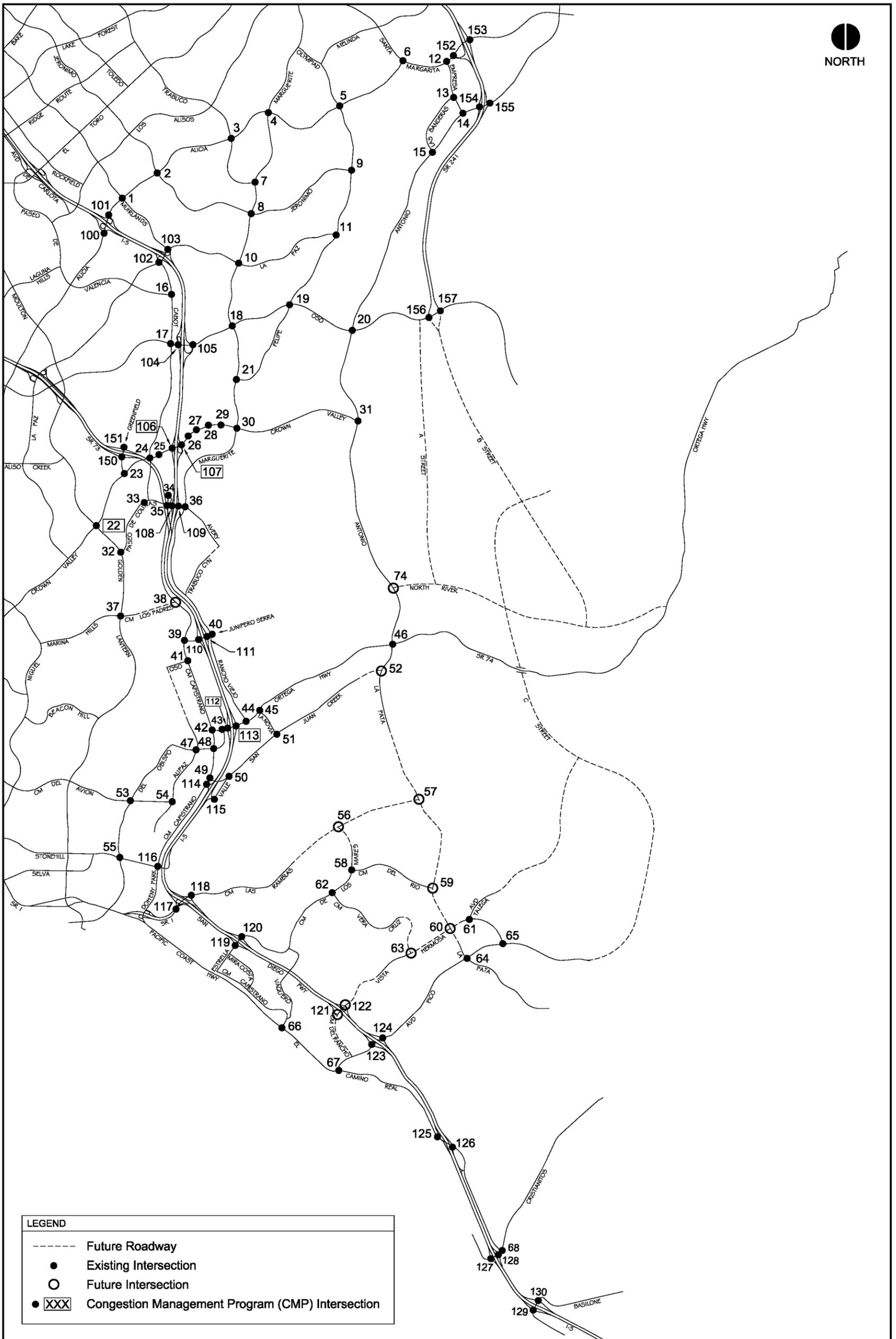
Table	Page
F-62 2025 Intersection Delay Summary – FEC-APV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-224
F-63 2025 Intersection Delay Summary – FEC-APV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-227
F-64 2025 Intersection Delay Summary – CC-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-230
F-65 2025 Intersection Delay Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-233
F-66 2025 Intersection Delay Summary – CC-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV).....	F-236
F-67 2025 Intersection Delay Summary – CC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	F-239
F-68 2025 Intersection Delay Summary – CC-ALPV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-242
F-69 2025 Intersection Delay Summary – CC-ALPV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-245
F-70 2025 Intersection Delay Summary – CC-OHV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-248
F-71 2025 Intersection Delay Summary – CC-OHV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-251
F-72 2025 Intersection Delay Summary – A7C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-254
F-73 2025 Intersection Delay Summary – A7C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-257
F-74 2025 Intersection Delay Summary – A7C-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV)	F-260
F-75 2025 Intersection Delay Summary – A7C-FECV-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan).....	F-263
F-76 2025 Intersection Delay Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-266
F-77 2025 Intersection Delay Summary – A7C-FECV-Initial and Ultimate Alternatives (Buildout Circulation System with OCP-2000 for RMV)	F-269
F-78 2025 Intersection Delay Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Committed Circulation System with Proposed RMV Plan)	F-272
F-79 2025 Intersection Delay Summary – A7C-FECV-C-Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan).....	F-275
F-80 2025 Intersection Delay Summary – AIO Alternative (Buildout Circulation System with Proposed RMV Plan).....	F-278
F-81 2025 Intersection Delay Summary – AIO Alternative (Buildout Circulation System with OCP-2000 for RMV).....	F-281

LIST OF TABLES

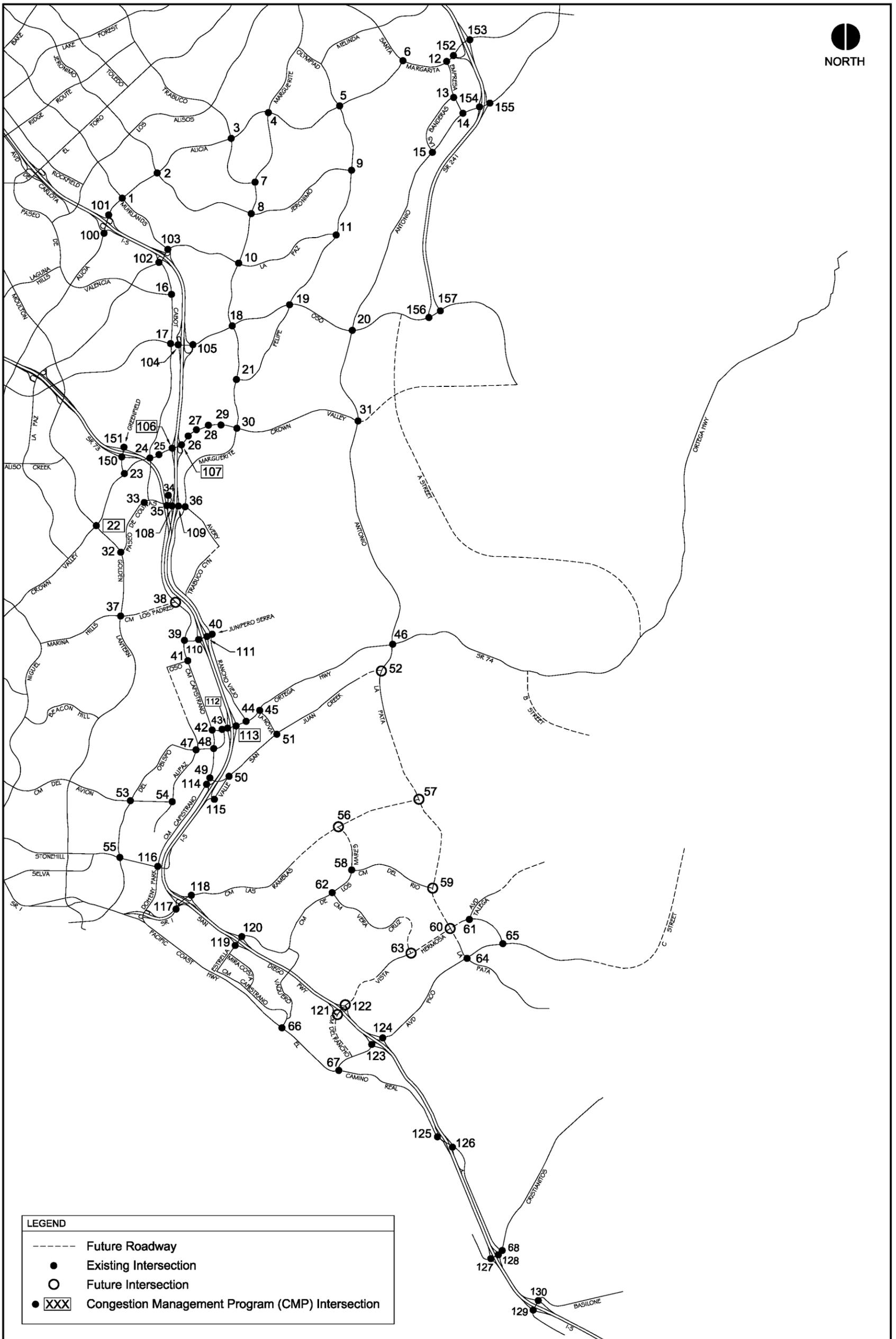
<u>Table</u>	<u>Page</u>
F-82 2025 Intersection Delay Summary – AIP Alternative (Buildout Circulation System with Proposed RMV Plan).....	F-284
F-83 2025 Intersection Delay Summary – AIP Alternative (Buildout Circulation System with OCP-2000 for RMV).....	F-287
F-84 2025 Intersection Delay Summary – I-5 Alternative (Committed Circulation System with Proposed RMV Plan).....	F-290
F-85 2025 Intersection Delay Summary – I-5 Alternative (Buildout Circulation System with Proposed RMV Plan).....	F-293
F-86 2025 Intersection Delay Summary – I-5 Alternative (Buildout Circulation System with OCP-2000 for RMV).....	F-296



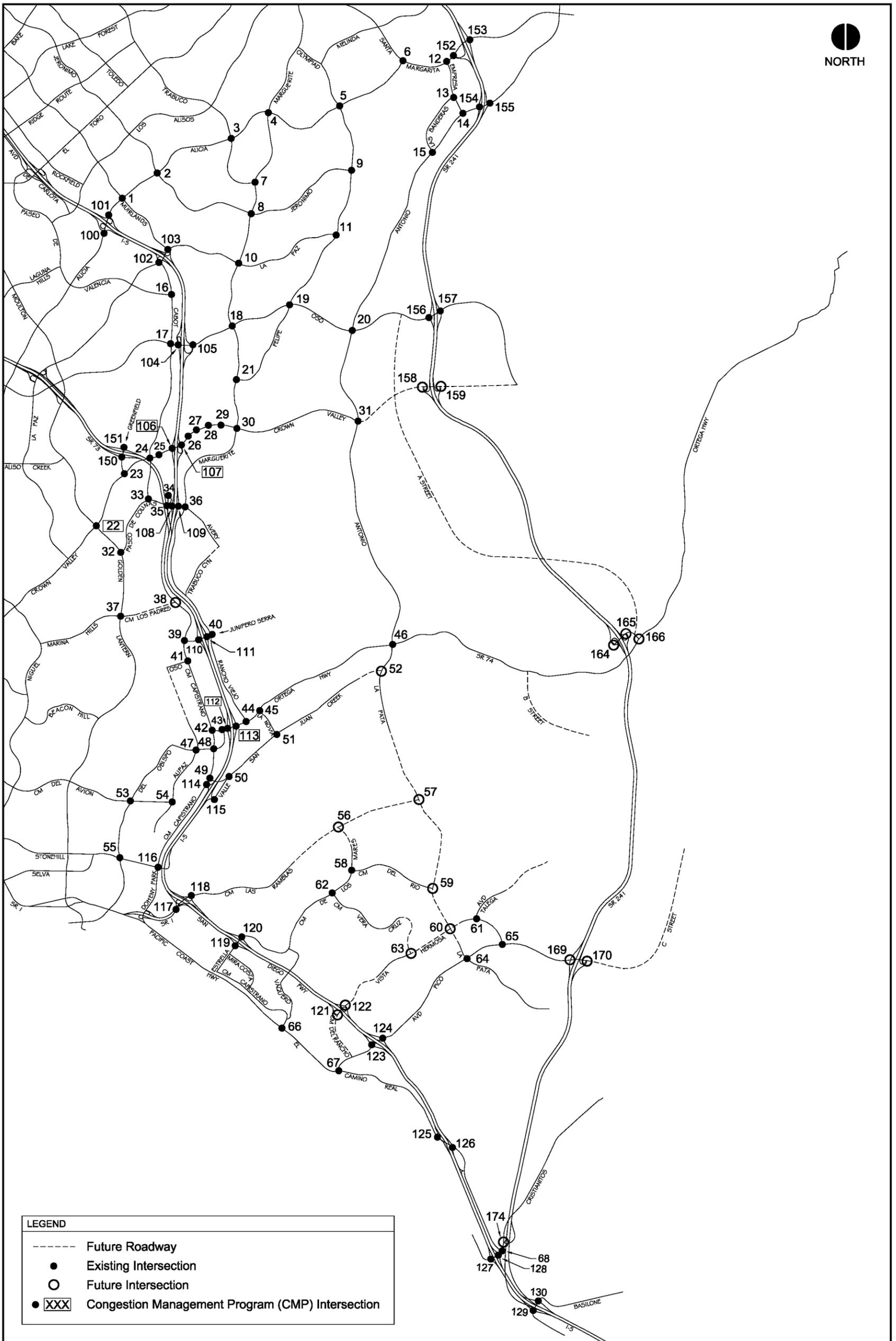
Existing Intersection Location Map



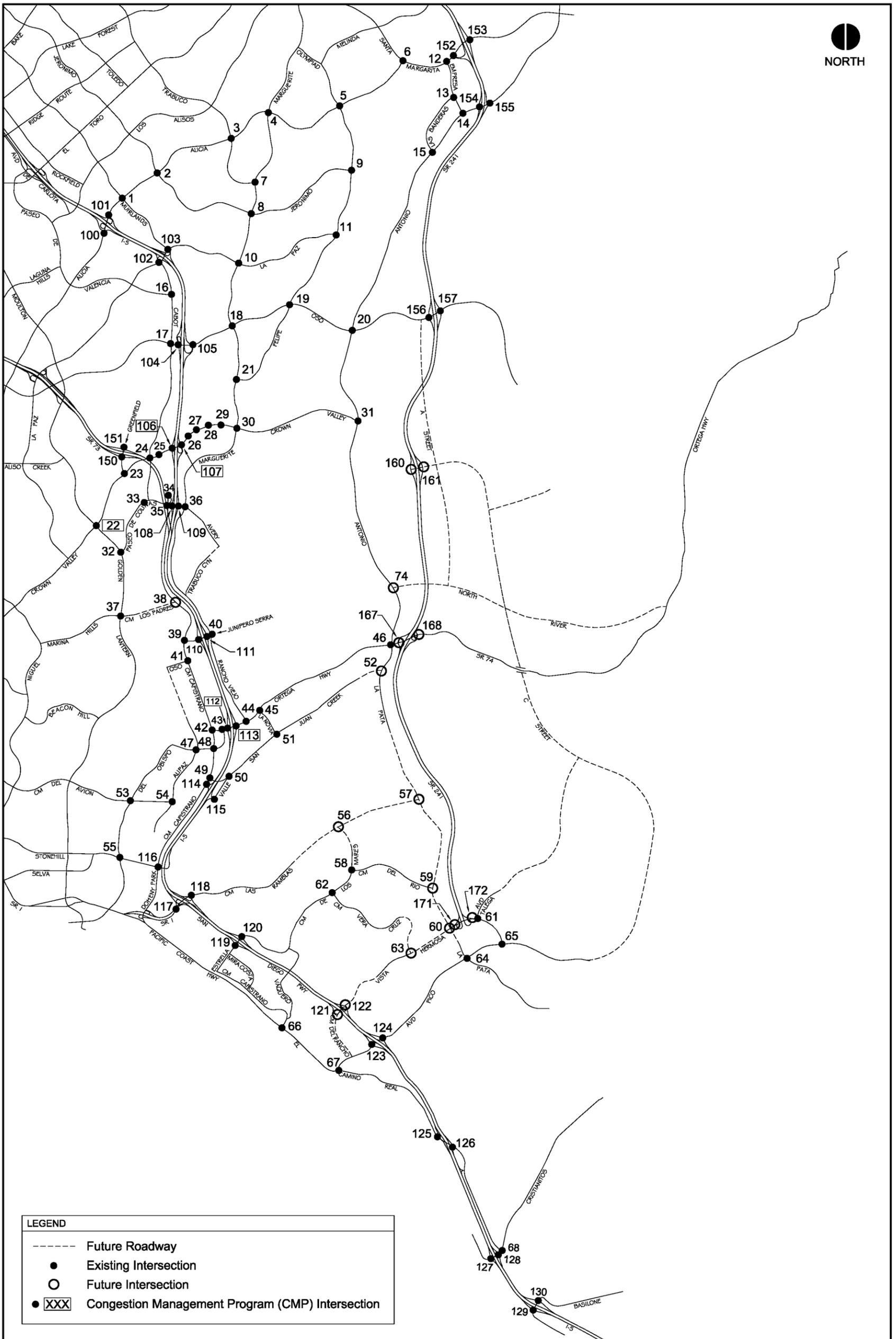
2025 Intersection Location Map
- No Action, AIO, AIP and I-5 Alternatives (Proposed RMV Plan)



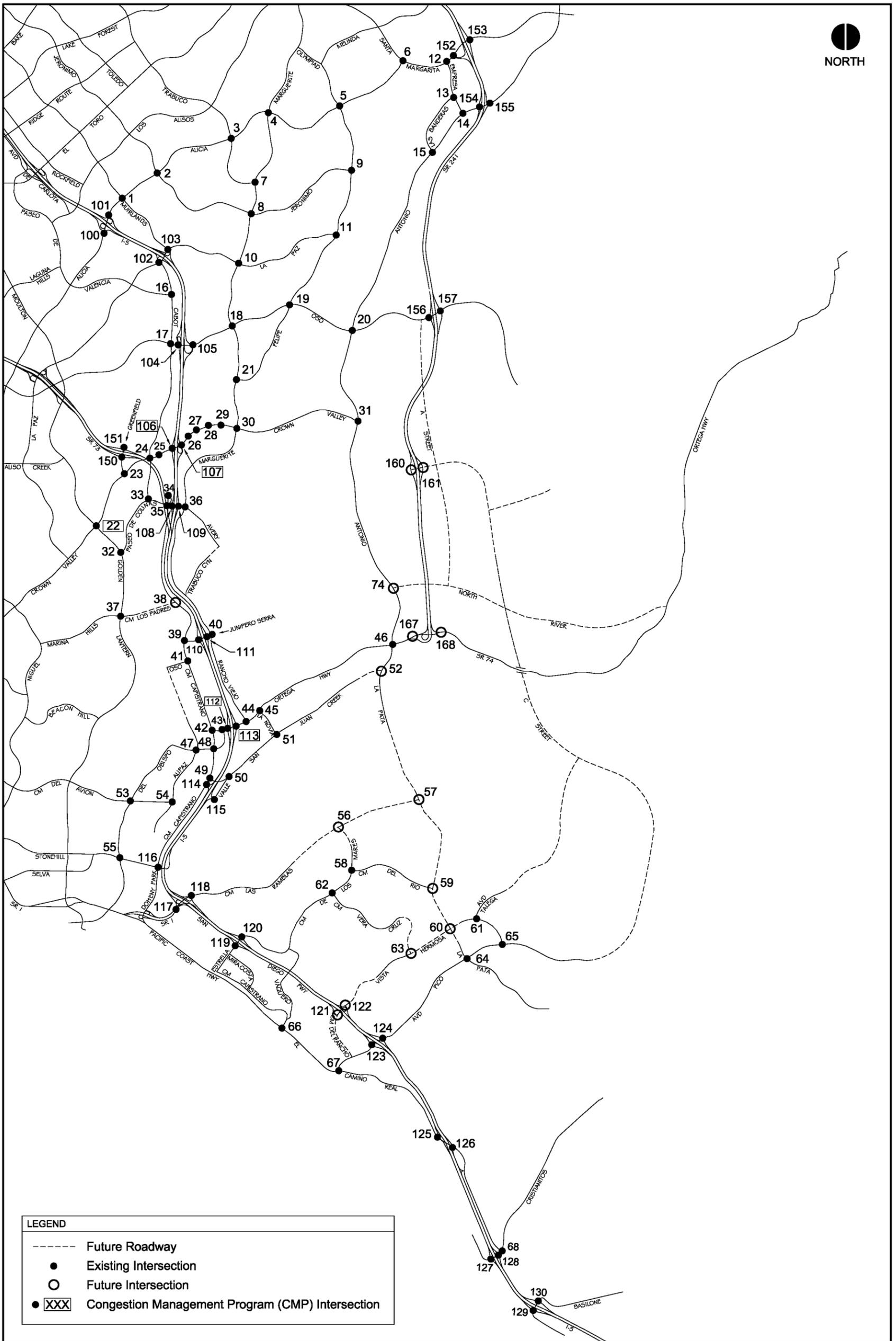
2025 Intersection Location Map
- No Action, AIO, AIP and I-5 Alternatives (OCP-2000 for RMV)



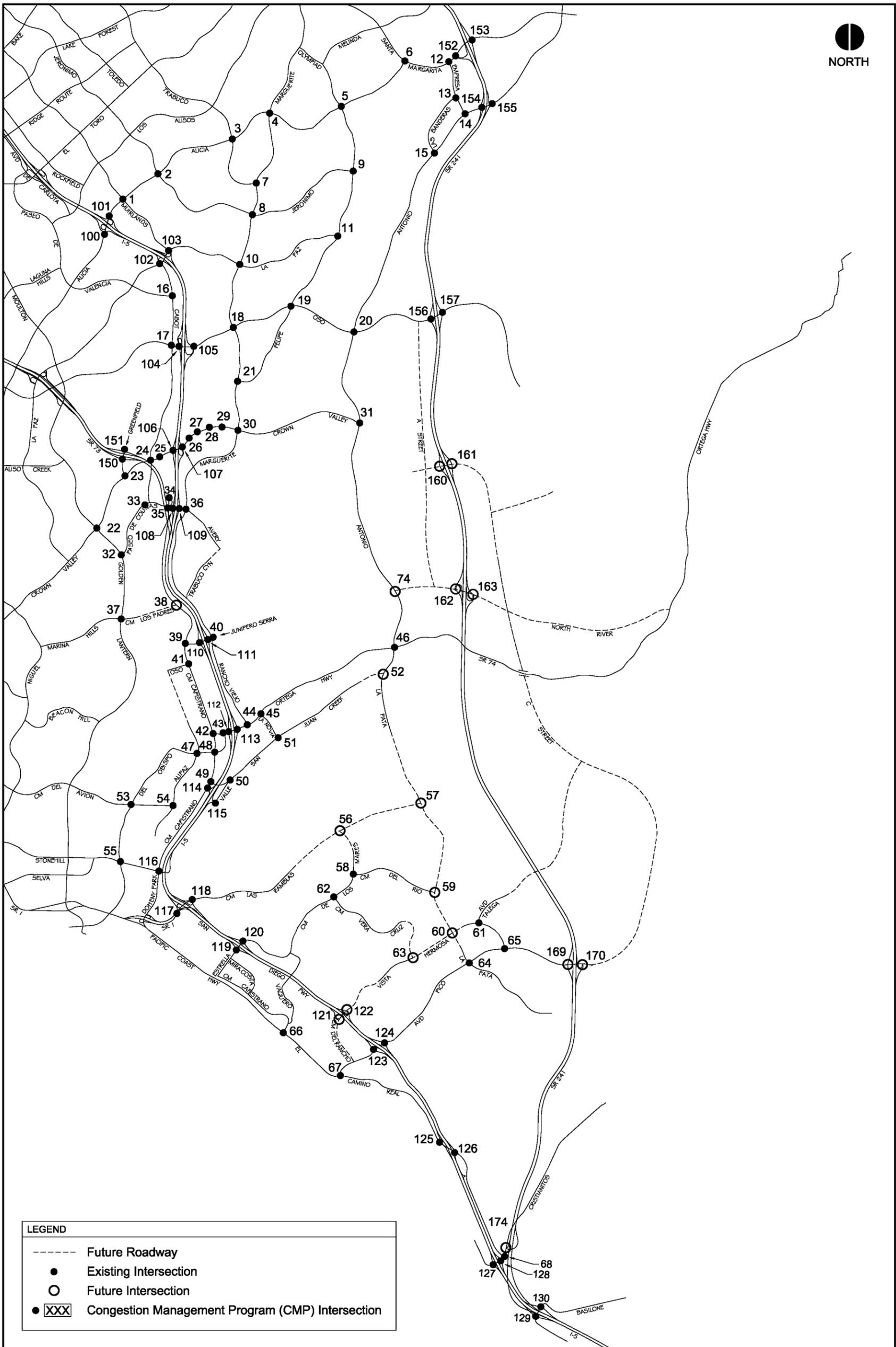
2025 Intersection Location Map
- FEC Alternatives (OCP-2000 for RMV)



2025 Intersection Location Map
- CC-ALPV Alternatives (Proposed RMV Plan)



2025 Intersection Location Map
- CC-OHV Alternatives (Proposed RMV Plan)



2025 Intersection Location Map
- A7C-FECV Alternatives (Proposed RMV Plan)

Table F-1
EXISTING AND FUTURE INTERSECTION LANE GEOMETRICS

Intersection	Southbound			Westbound			Northbound			Eastbound			Source
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1. Muirlands & Alicia													
Existing Lane Configuration	1	2	1	1	3	1	1	2	1	2	3	1	
2025 Committed Improvements				2									1
2025 Buildout Lane Configuration	1	2	1	2	3	1	1	2	1	2	3	1	
2. Jeronimo & Alicia													
Existing Lane Configuration	1	2	1	1	3	d	2	2	0	1	3	d	
2025 Non-Committed Improvements	2			2						2			
2025 Buildout Lane Configuration	2	2	1	2	3	d	2	2	0	2	3	d	
3. Trabuco & Alicia													
Existing Lane Configuration	1	2	d	1	3	d	1	2	d	1	3	d	
2025 Non-Committed Improvements	2			2						2			
2025 Buildout Lane Configuration	2	2	d	2	3	d	2	2	d	2	3	d	
4. Marguerite & Alicia													
Existing Lane Configuration	1	2	d	1	3	d	1	2	d	2	2	d	
2025 Buildout Lane Configuration	1	2	d	1	3	d	1	2	d	2	2	d	
5. Olympiad & Alicia													
Existing Lane Configuration	1	2	0	1	3	d	1	2	d	1	3	d	
2025 Buildout Lane Configuration	1	2	0	1	3	d	1	2	d	1	3	d	
6. Santa Margarita & Alicia													
Existing Lane Configuration	0	3	1	0	0	0	2	3	0	2	0	2	
2025 Buildout Lane Configuration	0	3	1	0	0	0	2	3	0	2	0	2	
7. Marguerite & Trabuco													
Existing Lane Configuration	1	2	d	1	2	d	1	2	d	1	1	1	
2025 Non-Committed Improvements							2						
2025 Buildout Lane Configuration	1	2	d	1	2	d	2	2	d	1	1	1	
8. Marguerite & Jeronimo													
Existing Lane Configuration	1	2	d	1	2	d	1	2	d	1	2	1	
2025 Buildout Lane Configuration	1	2	d	1	2	d	1	2	d	1	2	1	

Intersection	Southbound			Westbound			Northbound			Eastbound			Source
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	9. Olympiad & Jeronimo Existing Lane Configuration	0	2	0	0	0	0	1	2	0	1	0	
2025 Buildout Lane Configuration	0	2	0	0	0	0	1	2	0	1	0	1	
10. Marguerite & La Paz Existing Lane Configuration	2	2	1	2	2	d	2	2	d	2	2	1	
2025 Buildout Lane Configuration	2	2	1	2	2	d	2	2	d	2	2	1	
11. Olympiad & La Paz Existing Lane Configuration	0	2	0	0	0	0	1	2	0	1	0	1	
2025 Buildout Lane Configuration	0	2	0	0	0	0	1	2	0	1	0	1	
12. Empresa & Santa Margarita Existing Lane Configuration	1	1	1	2	3	d	1.5	0.5	1	1	3	1	
2025 Buildout Lane Configuration	1	1	1	2	3	d	1.5	0.5	1	1	3	1	
13. Empresa & Banderas Existing Lane Configuration	1	2	0	1	2	0	1	2	0	1	2	0	
2025 Buildout Lane Configuration	1	2	0	1	2	0	1	2	0	1	2	0	
14. Empresa & Antonio Existing Lane Configuration	1.5	0.5	f	1	3	f	0	1	1	2	3	d	
2025 Buildout Lane Configuration	1.5	0.5	f	1	3	f	0	1	1	2	3	d	
15. Banderas & Antonio Existing Lane Configuration	1	2	1	1	3	0	1	2	0	2	3	0	
2025 Buildout Lane Configuration	1	2	1	1	3	0	1	2	0	2	3	0	
16. Cabot & Paseo De Valencia Existing Lane Configuration	0	2	0	0	0	0	1	2	0	1	0	1	
2025 Buildout Lane Configuration	0	2	0	0	0	0	1	2	0	1	0	1	
17. Cabot & Oso Existing Lane Configuration	2	2	1	2	3	1	2	2	1	2	3	1	
2025 Buildout Lane Configuration	2	2	1	2	3	1	2	2	1	2	3	1	

Table F-1 (cont)
EXISTING AND FUTURE INTERSECTION LANE GEOMETRICS

Intersection	Southbound			Westbound			Northbound			Eastbound			Source	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
18. Marguerite & Oso														
Existing Lane Configuration	1	2	d	1	3	d	1	2	d	1	3	d		
2025 Committed Improvements	2		1	2	4		2		1	2	4			2
2025 Buildout Lane Configuration	2	2	1	2	4	d	2	2	1	2	4	d		
19. Felipe & Oso														
Existing Lane Configuration	1	2	d	1	3	d	1	2	1	1	3	d		
2025 Buildout Lane Configuration	1	2	d	1	3	d	1	2	1	1	3	d		
20. Antonio & Oso														
Existing Lane Configuration	2	3	f	2	3	1	2	3	1	2	3	1		
2025 Non-Committed Improvements														f
2025 Buildout Lane Configuration	2	3	f	2	3	1	2	3	1	2	3	f		f
21. Marguerite & Felipe														
Existing Lane Configuration	1	2	d	1.5	0.5	1	1	2	1	1	1	0		
2025 Buildout Lane Configuration	1	2	d	1.5	0.5	1	1	2	1	1	1	0		
22. Moulton & Crown Valley														
Existing Lane Configuration	2	3	1	2	3	1	2	2.5	1.5	2	3	1		
2025 Buildout Lane Configuration	2	3	1	2	3	1	2	2.5	1.5	2	3	1		
23. Greenfield & Crown Valley														
Existing Lane Configuration	2	1	1	1	3	1	0.5	1.5	0	2	3	0		
2025 Buildout Lane Configuration	2	1	1	1	3	1	0.5	1.5	0	2	3	0		
24. Cabot & Crown Valley														
Existing Lane Configuration	2	2	0	2	3	0	1	2	1	2	3	1		
2025 Committed Improvements														3
2025 Buildout Lane Configuration	2	2	0	2	3	1	1	2	1	2	3	1		
25. Forbes & Crown Valley														
Existing Lane Configuration	1	1	1	1	3	0	1	1	1	1	4	0		
2025 Buildout Lane Configuration	1	1	1	1	3	0	1	1	1	1	4	0		

Intersection	Southbound			Westbound			Northbound			Eastbound			Source
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	26. Puerta Real & Crown Valley	1	1	1	1	3	0	2	1	1	2	3	
Existing Lane Configuration													
2025 Committed Improvements				2	4		2.5	0.5			4	0	3
2025 Buildout Lane Configuration	1	1	1	2	4	0	2.5	0.5	1	2	4	0	
27. El Regateo & Crown Valley													
Existing Lane Configuration	0.5	1.5	0	1	3	0	1.5	1.5	0	1	3	1	
2025 Committed Improvements					4						4		3
2025 Buildout Lane Configuration	0.5	1.5	0	1	4	0	1.5	1.5	0	1	4	1	
28. Los Altos & Crown Valley													
Existing Lane Configuration	0	1	1	1	3	0	1	1	0	1	3	0	
2025 Committed Improvements					4						4		3
2025 Buildout Lane Configuration	0	1	1	1	4	0	1	1	0	1	4	0	
29. Bellogente & Crown Valley													
Existing Lane Configuration	1	1	0	1	3	0	1	1	0	1	3	0	
2025 Committed Improvements					4						4		3
2025 Buildout Lane Configuration	1	1	0	1	4	0	1	1	0	1	4	0	
30. Marguerite & Crown Valley													
Existing Lane Configuration	1	2	f	1	3	d	1	2	0	2	2	1	
2025 Committed Improvements	2		1	2	4	1	2		1		4		3
2025 Buildout Lane Configuration	2	2	1	2	4	1	2	2	1	2	4	1	
31. Antonio & Crown Valley													
Existing Lane Configuration	1	3	f	2	3	1	2	3	1	2	2	1	
2025 Non-Committed Improvements	2										3	f	
2025 Buildout Lane Configuration	2	3	f	2	3	1	2	3	1	2	3	f	
32. Golden Lantern & Paseo de Colinas													
Existing Lane Configuration	1	2	0	1.5	0.5	1	1	2	1	1	1	0	
2025 Non-Committed Improvements		3						3	2				
2025 Buildout Lane Configuration	1	3	0	1.5	0.5	1	1	3	2	1	1	0	

Intersection	Southbound			Westbound			Northbound			Eastbound			Source
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
33. Cabot & Paseo de Colinas													
Existing Lane Configuration	2	0	2	0	2	0	0	0	0	1	2	0	
2025 Buildout Lane Configuration	2	0	2	0	2	0	0	0	0	1	2	0	
34. Cm Capistrano & Paseo de Colinas													
Existing Lane Configuration	1	1	0	1.5	0	0.5	0	0.5	1.5	0	0	0	
2025 Buildout Lane Configuration	1	1	0	1.5	0	0.5	0	0.5	1.5	0	0	0	
35. Camino Capistrano & Avery													
Existing Lane Configuration	2	1	0	1	0	2	0	1	1	0	0	0	
2025 Buildout Lane Configuration	2	1	0	1	0	2	0	1	1	0	0	0	
36. Marguerite & Avery													
Existing Lane Configuration	1	2	d	1	2	0	1	2	d	2	2	0	
2025 Buildout Lane Configuration	1	2	d	1	2	0	1	2	d	2	2	0	
37. Golden Lantern & Marina Hills													
Existing Lane Configuration	1	2	1	1	2	0	1	2	1	1.5	0.5	1	
2025 Non-Committed Improvements		3		2				3		2	2	0	
2025 Buildout Lane Configuration	1	3	1	2	2	0	1	3	1	2	2	0	
38. Camino Capistrano & Los Padres													
2025 Non-Committed Improvements	0	2	0	0	0	0	2	2	0	1.5	0	1.5	
2025 Buildout Lane Configuration	0	2	0	0	0	0	2	2	0	1.5	0	1.5	
39. Camino Capistrano & Junipero Serra													
Existing Lane Configuration	1	1	0	1	0	1	0	1	1	0	0	0	
2025 Non-Committed Improvements	2	2		2				2	1				
2025 Buildout Lane Configuration	2	2	0	2	0	1	0	2	1	0	0	0	
40. Rancho Viejo & Junipero Serra													
Existing Lane Configuration	1	1	1	0.5	1.5	0	1	2	0	1.5	0.5	0	
2025 Committed Improvements		1.5	1.5				2						4
2025 Buildout Lane Configuration	1	1.5	1.5	0.5	1.5	0	2	2	0	1.5	0.5	0	

Intersection	Southbound			Westbound			Northbound			Eastbound			Source
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
41. Camino Capistrano & Oso Road													
Existing Lane Configuration	0	2	0	0	0	0	0	0	0	0	0	0	1
2025 Buildout Lane Configuration	0	2	0	0	0	0	0	0	0	0	0	0	1
42. Camino Capistrano & Ortega													
Existing Lane Configuration	1	1	0	1	0	1	0	1	1	0	0	0	0
2025 Buildout Lane Configuration	1	1	0	1	0	1	0	1	1	0	0	0	0
43. Del Obispo & Ortega													
Existing Lane Configuration	0	0	0	2	1	0	1	0	2	0	2	0	0
2025 Buildout Lane Configuration	0	0	0	2	1	0	1	0	2	0	2	0	0
44. Rancho Viejo & Ortega													
Existing Lane Configuration	1.5	0.5	1	1	3	1	1.5	1.5	0	1	2	1	1
2025 Buildout Lane Configuration	1.5	0.5	1	1	3	1	1.5	1.5	0	1	2	1	1
45. La Novia & Ortega													
Existing Lane Configuration	0	0	0	1	2	0	2	0	1	0	2	1	1
2025 Buildout Lane Configuration	0	0	0	1	2	0	2	0	1	0	2	1	1
46. Antonio/La Pata & Ortega													
Existing Lane Configuration	1	2	0	1	1	1	1	1	0	1	1	1	1
2025 Committed Improvements										2			5
2025 Non-Committed Improvements	2		1	2	2		2	2	1		2		
2025 Buildout Lane Configuration	2	2	1	2	2	1	2	2	1	2	2	1	1
47. Alipaz & Del Obispo													
Existing Lane Configuration	1	1	0	1	2	0	0	1	2	1	2	0	0
2025 Buildout Lane Configuration	1	1	0	1	2	0	0	1	2	1	2	0	0
48. Camino Capistrano & Del Obispo													
Existing Lane Configuration	1	1	1	1	2	1	2	1	1	1	2	1	1
2025 Non-Committed Improvements				2									
2025 Buildout Lane Configuration	1	1	1	2	2	1	2	1	1	1	2	1	1

Intersection		Southbound			Westbound			Northbound			Eastbound			Source
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
49. Cm Capistrano & San Juan Creek		2	2	0	1.5	0	1.5	0	2	1	0	0	0	
Existing Lane Configuration														
2025 Buildout Lane Configuration		2	2	0	1.5	0	1.5	0	2	1	0	0	0	
50. Valle & San Juan Creek														
Existing Lane Configuration		0	0	0	1	1	0	1	0	1	0	1	1	
2025 Non-Committed Improvements						2		1.5		1.5		2	0	
2025 Buildout Lane Configuration		0	0	0	1	2	0	1.5	0	1.5	0	2	0	
51. La Novia & San Juan Creek														
Existing Lane Configuration		1	1	1	1	1	1	1	1	1	1	1	1	
2025 Non-Committed Improvements						2	d					2	d	
2025 Buildout Lane Configuration		1	1	1	1	2	d	1	1	1	1	2	d	
52. La Pata & San Juan Creek														
2025 Non-Committed Improvements		1	2	1	1	1	0	1	2	0	1	1	1	
2025 Buildout Lane Configuration		1	2	1	1	1	0	1	2	0	1	1	1	
53. Del Obispo & Del Avion														
Existing Lane Configuration		1	2	0	1	2	0	1	2	0	1.5	1.5	0	
2025 Buildout Lane Configuration		1	2	0	1	2	0	1	2	0	1.5	1.5	0	
54. Alipaz & Del Avion														
Existing Lane Configuration		0	2	0	0	0	0	0	1	0	1	0	1	
2025 Buildout Lane Configuration		0	2	0	0	0	0	0	1	0	1	0	1	
55. Del Obispo & Stonehill														
Existing Lane Configuration		1	2	0	1	2	1	1	2	0	1	1	0	
2025 Non-Committed Improvements												2		
2025 Buildout Lane Configuration		1	2	0	1	2	1	1	2	0	1	2	0	
56. Los Mares & Las Ramblas														
2025 Non-Committed Improvements		0	0	0	1	2	0	2	0	1	0	2	1	
2025 Buildout Lane Configuration		0	0	0	1	2	0	2	0	1	0	2	1	

Intersection	Southbound			Westbound			Northbound			Eastbound			Source
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
57. La Pata & Las Ramblas													
2025 Non-Committed Improvements	0	2	1	0	0	0	1	2	0	0.5	0	1.5	
2025 Buildout Lane Configuration	0	2	1	0	0	0	1	2	0	0.5	0	1.5	
58. Del Rio & Los Mares													
Existing Lane Configuration	0	1	0	1	2	0	1	1	1	1	2	0	
2025 Buildout Lane Configuration	0	1	0	1	2	0	1	1	1	1	2	0	
59. La Pata & Del Rio													
2025 Non-Committed Improvements	0	2	1	0	0	0	1	2	0	0.5	0	1.5	
2025 Buildout Lane Configuration	0	2	1	0	0	0	1	2	0	0.5	0	1.5	
60. La Pata & Vista Hermosa													
2025 Committed Improvements	1	3	1	1	2	0	2	3	1	1	2	1	6
2025 Buildout Lane Configuration	1	3	1	1	2	0	2	3	1	1	2	1	
61. Talega & Vista Hermosa													
2025 Committed Improvements	1	0.5	1.5	1	2	0	1	1	0	2	2	0	6
2025 Buildout Lane Configuration	1	0.5	1.5	1	2	0	1	1	0	2	2	0	
62. Vera Cruz & Los Mares													
Existing Lane Configuration	0	1	0	1	2	0	1	1	0	1	2	1	
2025 Buildout Lane Configuration	0	1	0	1	2	0	1	1	0	1	2	1	
63. Vera Cruz & Vista Hermosa													
2025 Committed Improvements	1	2	0	1	2	0	1	2	0	1	2	0	7
2025 Buildout Lane Configuration	1	2	0	1	2	0	1	2	0	1	2	0	
64. La Pata & Pico													
Existing Lane Configuration	1	3	d	1	3	d	1	3	d	1	3	d	
2025 Committed Improvements	2	2	f	2	2.5	1.5		2	1		1	1	7
2025 Buildout Lane Configuration	2	2	f	2	2.5	1.5		2	1		1	1	
65. Vista Hermosa & Pico													
2025 Committed Improvements	2	1	1	1	3	0	1	2	0	2	3	1	6
2025 Buildout Lane Configuration	2	1	1	1	3	0	1	2	0	2	3	1	

Intersection	Southbound			Westbound			Northbound			Eastbound			Source	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
66. PCH & Camino Capistrano	1	1	0	1	0	1	0	1	1	0	0	0	0	
Existing Lane Configuration														
2025 Non-Committed Improvements		2							2					
2025 Buildout Lane Configuration	1	2	0	1	0	1	0	1	2	0	0	0	0	
67. El Camino Real & Pico														
Existing Lane Configuration	1	2	0	1	1	1	1	1	2	0	1	1	0	
2025 Non-Committed Improvements	2			2						1				
2025 Buildout Lane Configuration	2	2	0	2	1	1	1	1	2	1	1	1	0	
68. El Camino Real & Cristianitos														
Existing Lane Configuration	1	0	1	0	1	1	1	0	0	0	1	1	0	
2025 Buildout Lane Configuration	1	0	1	0	1	1	1	0	0	0	1	1	0	
100. I-5 SB Ramps & Alicia														
Existing Lane Configuration	1.5	0	1.5	0	3	f	f	0	0	0	0	3	f	
2025 Buildout Lane Configuration	1.5	0	1.5	0	3	f	f	0	0	0	0	3	f	
101. I-5 NB Ramps & Alicia														
Existing Lane Configuration	0	0	0	0	3	f	f	1.5	0	1.5	0	3	f	
2025 Buildout Lane Configuration	0	0	0	0	3	f	f	1.5	0	1.5	0	3	f	
102. I-5 SB Ramps/Cabot & La Paz														
Existing Lane Configuration	1.5	1.5	0	1	2	0	0	1	0	2	0	2	1	
2025 Non-Committed Improvements	2	2	1	2										
2025 Buildout Lane Configuration	2	2	1	2	2	0	0	1	0	2	0	2	1	
103. I-5 NB Ramps/Muirlands & La Paz														
Existing Lane Configuration	2	0	2	0	3	0	0	1.5	1	1.5	2	2	f	
2025 Buildout Lane Configuration	2	0	2	0	3	0	0	1.5	1	1.5	2	2	f	
104. I-5 SB Ramps & Oso														
Existing Lane Configuration	2	0	1	0	3	f	f	0	0	0	0	3	f	
2025 Buildout Lane Configuration	2	0	1	0	3	f	f	0	0	0	0	3	f	

Intersection	Southbound			Westbound			Northbound			Eastbound			Source
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
105. I-5 NB Ramps & Oso	0	0	0	0	3	f	1	0	1	0	3	f	
Existing Lane Configuration													
2025 Buildout Lane Configuration	0	0	0	0	3	f	1	0	1	0	3	f	
106. I-5 SB Ramps & Crown Valley	2	0	2	2	3	0	0	0	0	0	4	1	
Existing Lane Configuration													
2025 Committed Improvements	2.5		2.5										8
2025 Buildout Lane Configuration	2.5	0	2.5	2	3	0	0	0	0	0	4	1	
107. I-5 NB Ramps & Crown Valley	0	0	0	0	3	f	1.5	0	1.5	0	2.5	1.5	
Existing Lane Configuration													
2025 Buildout Lane Configuration	0	0	0	0	3	f	1.5	0	1.5	0	2.5	1.5	
108. I-5 SB Ramps & Avery	1.5	0	0.5	1	1	0	0	0	0	0	2	0	
Existing Lane Configuration													
2025 Non-Committed Improvements	2		1		2						1.5	1.5	
2025 Buildout Lane Configuration	2	0	1	1	2	0	0	0	0	0	1.5	1.5	
109. I-5 NB Ramps & Avery	0	0	0	0	1	1	1	0	1	1	2	0	
Existing Lane Configuration													
2025 Non-Committed Improvements					2	f	1.5		1.5				
2025 Buildout Lane Configuration	0	0	0	0	2	f	1.5	0	1.5	1	2	0	
110. I-5 SB Ramps & Junipero Serra	1	0	1	0.5	1.5	0	0	0	0	0	2	0	
Existing Lane Configuration													
2025 Committed Improvements	1.5		1.5	1	2							d	4
2025 Buildout Lane Configuration	1.5	0	1.5	1	2	0	0	0	0	0	2	d	
111. I-5 NB Ramps & Junipero Serra	0	0	0	0	1	1	1	0	1	0	1.5	0	
Existing Lane Configuration													
2025 Committed Improvements					1.5	1.5	2	2		2	2		4
2025 Buildout Lane Configuration	0	0	0	0	1.5	1.5	2	2	1	2	2	0	

Intersection	Southbound			Westbound			Northbound			Eastbound			Source
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
112. I-5 SB Ramps & Ortega	1.5	0	1.5	1	2	0	0	0	0	0	3	0	
Existing Lane Configuration													
2025 Non-Committed Improvements													1
2025 Buildout Lane Configuration	1.5	0	1.5	1	2	0	0	0	0	0	3	1	
113. I-5 NB Ramps & Ortega													
Existing Lane Configuration	0	0	0	0	2	1	0.5	0	1.5	2	2	0	
2025 Non-Committed Improvements						f	1.5				3		
2025 Buildout Lane Configuration	0	0	0	0	2	f	1.5	0	1.5	2	3	0	
114. Cm Capistrano & I-5 SB Ramps													
Existing Lane Configuration	2	1	0	1	0	1	0	2	0	0	0	0	
2025 Committed Improvements		2		1.5		1.5							4
2025 Buildout Lane Configuration	2	2	0	1.5	0	1.5	0	2	0	0	0	0	
115. Valle & La Novia/I-5 NB Ramps													
Existing Lane Configuration	0	1	1	0	1	1	0	1	1	1	1	0	
2025 Committed Improvements							1						9
2025 Buildout Lane Configuration	0	1	1	0	1	1	1	1	1	1	1	0	
116. Camino Capistrano & Stonehill													
Existing Lane Configuration	1	2	1	0	0	0	2	1	0	1	1	1	
2025 Non-Committed Improvements		1.5	1.5					2			2		
2025 Buildout Lane Configuration	1	1.5	1.5	0	0	0	2	2	0	1	2	1	
117. I-5 SB Ramps & Las Ramblas													
Existing Lane Configuration	2	0	f	0	1	f	0	0	0	0	2	f	
2025 Buildout Lane Configuration	2	0	f	0	1	f	0	0	0	0	2	f	
118. I-5 NB Ramps & Las Ramblas													
Existing Lane Configuration	1	0	1	0	3	0	0	1	1	1	2	f	
2025 Buildout Lane Configuration	1	0	1	0	3	0	0	1	1	1	2	f	

Intersection		Southbound			Westbound			Northbound			Eastbound			Source
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
119. I-5 SB Ramps & Estrella														
Existing Lane Configuration		2	0	1	1	2	0	0	0	0	0	2	1	
2025 Buildout Lane Configuration		2	0	1	1	2	0	0	0	0	0	2	1	
120. I-5 NB Ramps & Estrella														
Existing Lane Configuration		0	0	0	0	3	f	0.5	0	1.5	0	3	1	
2025 Buildout Lane Configuration		0	0	0	0	3	f	0.5	0	1.5	0	3	1	
121. I-5 SB Ramps & Vista Hermosa														
2025 Committed Improvements		1.5	0	1.5	0	2	f	0	0	0	1	3	0	10
2025 Buildout Lane Configuration		1.5	0	1.5	0	2	f	0	0	0	1	3	0	
122. I-5 NB Ramps & Vista Hermosa														
2025 Committed Improvements		0	0	0	0	1.5	1.5	1.5	0	1.5	0	2	f	10
2025 Buildout Lane Configuration		0	0	0	0	1.5	1.5	1.5	0	1.5	0	2	f	
123. I-5 SB Ramps & Pico														
Existing Lane Configuration		1.5	0	1.5	1	2	0	0	0	0	0	3	1	
2025 Buildout Lane Configuration		1.5	0	1.5	1	2	0	0	0	0	0	3	1	
124. I-5 NB Ramps & Pico														
Existing Lane Configuration		0	0	0	0	3	f	1	0	2	1	2	0	
2025 Buildout Lane Configuration		0	0	0	0	3	f	1	0	2	1	2	0	
125. I-5 SB Ramp & El Camino Real														
Existing Lane Configuration		1	1	1	1	2	0	1	0	1	0	2	0	
2025 Buildout Lane Configuration		1	1	1	1	2	0	1	0	1	0	2	0	
126. I-5 NB Ramps & El Camino Real														
Existing Lane Configuration		0	0	0	0	2	0	1	0	1	1	2	0	
2025 Buildout Lane Configuration		0	0	0	0	2	0	1	0	1	1	2	0	
127. I-5 SB Ramps & Cristianitos														
Existing Lane Configuration		1	0	1	1	1	0	0	0	0	0	1	0	
2025 Buildout Lane Configuration		1	0	1	1	1	0	0	0	0	0	1	0	

Intersection		Southbound			Westbound			Northbound			Eastbound			Source
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
128. I-5 NB Ramps & Cristianitos		0	0	0	0	1	0	1	0	1	1	1	0	
Existing Lane Configuration														
2025 Buildout Lane Configuration		0	0	0	0	1	0	1	0	1	1	1	0	
129. I-5 SB Ramps & Basillone														
Existing Lane Configuration		1	0	1	1	1	0	0	0	0	0	1	1	
2025 Buildout Lane Configuration		1	0	1	1	1	0	0	0	0	0	1	1	
130. I-5 NB Ramps & Basillone														
Existing Lane Configuration		0	0	0	0	1	1	1	0	1	0	1	0	
2025 Buildout Lane Configuration		0	0	0	0	1	1	1	0	1	0	1	0	
150. Greenfield & SR 73 SB Ramps														
Existing Lane Configuration		1	2	0	0	0	0	0	2	0	0.5	0	1.5	
2025 Buildout Lane Configuration		1	2	0	0	0	0	0	2	0	0.5	0	1.5	
151. Greenfield & SR 73 NB Ramps														
Existing Lane Configuration		0	1	1	1	0	1	2	1	0	0	0	0	
2025 Buildout Lane Configuration		0	1	1	1	0	1	2	1	0	0	0	0	
152. SR 241 SB & Santa Margarita														
Existing Lane Configuration		0	1	1	2	3	0	0	1	2	1	3	1	
2025 Buildout Lane Configuration		0	1	1	2	3	0	0	1	2	1	3	1	
153. SR 241 NB & Santa Margarita														
Existing Lane Configuration		0	0	0	0	3	1	1.5	0	1.5	1	3	0	
2025 Non-Committed Improvements							f	2		f	2			
2025 Buildout Lane Configuration		0	0	0	0	3	f	2	0	f	2	3	0	
154. SR 241 SB Ramps & Antonio														
Existing Lane Configuration		1.5	0	1.5	1	3	0	0	0	0	0	3	1	
2025 Buildout Lane Configuration		1.5	0	1.5	1	3	0	0	0	0	0	3	1	
155. SR 241 NB Ramps & Antonio														
Existing Lane Configuration		0	0	0	0	3	1	1.5	0	1.5	1	3	0	
2025 Non-Committed Improvements											2			
2025 Buildout Lane Configuration		0	0	0	0	3	1	1.5	0	1.5	2	3	0	

Table F-1 (cont)
EXISTING AND FUTURE INTERSECTION LANE GEOMETRICS

Intersection	Southbound			Westbound			Northbound			Eastbound			Source
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
156. SR 241 SB Ramps & Oso Existing Lane Configuration	1.5	0	1.5	0	2	0	0	0	0	0	2	0	
2025 Buildout Lane Configuration	1.5	0	1.5	0	2	0	0	0	0	0	2	0	
157. SR 241 NB Ramps & Oso Existing Lane Configuration	0	0	0	0	2	0	0	0	0	0	1	2	0
2025 Buildout Lane Configuration	0	0	0	0	2	1	0	0	0	0	1	2	0

Notes: d = de-facto right-turn lane NB = northbound
f = free right-turn lane SB = southbound

- Sources:
- 1 – Implemented through the Foothill Circulation Phasing Program (FCPP)
 - 2 – Conditioned for implementation with development of Las Flores
 - 3 – Conditioned for implementation with development of Ladera Ranch
 - 4 – Implemented through the City of San Juan Capistrano Reimbursement Agreement and Nexus Fee Program
 - 5 – County of Orange improvement project
 - 6 – Conditioned for implementation with development of Talega
 - 7 – Implemented through the City of San Clemente Regional Circulation Financing and Phasing Program (RCFPP)
 - 8 – Conditioned for implementation with development of the Gateway Specific Plan
 - 9 – Conditioned for implementation with development of Pacific Point
 - 10 – Improvement under construction by Caltrans and the City of San Clemente

Table F-2
 EXISTING ICU SUMMARY

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.90	D	.91	E
2. Jeronimo & Alicia	Mission Viejo	.76	C	.77	C
3. Trabuco & Alicia	Mission Viejo	.72	C	.89	D
4. Marguerite & Alicia	Mission Viejo	.59	A	.66	B
5. Olympiad & Alicia	Mission Viejo	.60	A	.59	A
6. Santa Margarita & Alicia	Rancho Santa Margarita	.50	A	.72	C
7. Marguerite & Trabuco	Mission Viejo	.71	C	.70	B
8. Marguerite & Jeronimo	Mission Viejo	.80	C	.63	B
9. Olympiad & Jeronimo	Mission Viejo	.45	A	.35	A
10. Marguerite & La Paz	Mission Viejo	.58	A	.70	B
11. Olympiad & La Paz	Mission Viejo	.45	A	.45	A
12. Empresa & Santa Margarita	Rancho Santa Margarita	.90	D	.85	D
13. Empresa & Banderas	Rancho Santa Margarita	.70	B	.55	A
14. Empresa & Antonio	Rancho Santa Margarita	.31	A	.33	A
15. Banderas & Antonio	Rancho Santa Margarita	.53	A	.49	A
16. Cabot & Paseo de Valencia	Laguna Hills	.38	A	.53	A
17. Cabot & Oso	Laguna Hills	.55	A	.73	C
18. Marguerite & Oso	Mission Viejo	1.02	F	.85	D
19. Felipe & Oso	Mission Viejo	.64	B	.73	C
20. Antonio & Oso	County of Orange	.69	B	.59	A
21. Marguerite & Felipe	Mission Viejo	.57	A	.80	C
22. Moulton & Crown Valley ¹	Laguna Niguel	.64	B	.67	B
23. Greenfield & Crown Valley	Laguna Niguel	.70	B	.74	C
24. Cabot & Crown Valley	Laguna Niguel	.63	B	.77	C
25. Forbes & Crown Valley	Laguna Niguel	.55	A	.70	B
26. Puerta Real & Crown Valley	Mission Viejo	.57	A	.91	E
27. El Regateo & Crown Valley	Mission Viejo	.54	A	.63	B
28. Los Altos & Crown Valley	Mission Viejo	.50	A	.64	B
29. Bellogente & Crown Valley	Mission Viejo	.54	A	.51	A
30. Marguerite & Crown Valley	Mission Viejo	.76	C	.88	D
31. Antonio & Crown Valley	County of Orange	.33	A	.39	A
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.84	D	.71	C
33. Cabot & Paseo de Colinas	Laguna Niguel	.47	A	.47	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.39	A	.52	A
35. Camino Capistrano & Avery	Laguna Niguel	.33	A	.47	A
36. Marguerite & Avery	Mission Viejo	.62	B	.80	C
37. Golden Lantern & Marina Hills	Laguna Niguel	.71	C	.72	C
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.51	A	.60	A
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.60	A	.58	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.33	A	.29	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.45	A	.50	A
43. Del Obispo & Ortega	San Juan Capistrano	.57	A	.59	A
44. Rancho Viejo & Ortega	San Juan Capistrano	.70	B	.83	D
45. La Novia & Ortega	San Juan Capistrano	.54	A	.58	A

Table F-2 (cont) EXISTING ICU SUMMARY					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.04	F	.77	C
47. Alipaz & Del Obispo	San Juan Capistrano	.67	B	.72	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.88	D	.88	D
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.57	A	.78	C
50. Valle & San Juan Creek	San Juan Capistrano	.92	E	.84	D
51. La Novia & San Juan Creek	San Juan Capistrano	.80	C	.67	B
53. Del Obispo & Del Avion	San Juan Capistrano	.64	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.39	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.92	E	.94	E
58. Del Rio & Los Mares	San Clemente	.22	A	.19	A
62. Vera Cruz & Los Mares	San Clemente	.41	A	.32	A
64. La Pata & Pico	San Clemente	.20	A	.23	A
66. PCH & Camino Capistrano	San Clemente	.50	A	.58	A
67. El Camino Real & Pico	San Clemente	.47	A	.53	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.33	A
100. I-5 SB Ramps & Alicia	Laguna Hills	.71	C	.79	C
101. I-5 NB Ramps & Alicia	Mission Viejo	.40	A	.68	B
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.69	B	.89	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.68	B	.72	C
104. I-5 SB Ramps & Oso	Mission Viejo	.57	A	.70	B
105. I-5 NB Ramps & Oso	Mission Viejo	.65	B	.75	C
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.72	C	.84	D
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.65	B	.62	B
108. I-5 SB Ramps & Avery	Mission Viejo	.66	B	.81	D
109. I-5 NB Ramps & Avery	Mission Viejo	.67	B	.84	D
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.53	A	.56	A
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.58	A	.62	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.79	C	.88	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.99	E	.84	D
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.79	C	1.11	F
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.58	A	.48	A
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.00	E	1.17	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.31	A	.36	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.24	A	.27	A
119. I-5 SB Ramps & Estrella	San Clemente	.64	B	.83	D
120. I-5 NB Ramps & Estrella	San Clemente	.35	A	.46	A
123. I-5 SB Ramps & Pico	San Clemente	.81	D	.93	E
124. I-5 NB Ramps & Pico	San Clemente	.70	B	.67	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.46	A	.52	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.38	A	.33	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.28	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.25	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A

Table F-2 (cont)
 EXISTING ICU SUMMARY

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.45	A	.37	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.56	A	.37	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.66	B	.97	E
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.52	F	.75	C
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.31	A	.45	A
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	.98	E	.37	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.37	A	.34	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.59	A	.31	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-3
 2025 ICU SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.99	E
2. Jeronimo & Alicia	Mission Viejo	.88	D	.90	D
3. Trabuco & Alicia	Mission Viejo	.88	D	.96	E
4. Marguerite & Alicia	Mission Viejo	.66	B	.67	B
5. Olympiad & Alicia	Mission Viejo	.65	B	.63	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.65	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.80	C	.86	D
8. Marguerite & Jeronimo	Mission Viejo	.91	E	.72	C
9. Olympiad & Jeronimo	Mission Viejo	.52	A	.43	A
10. Marguerite & La Paz	Mission Viejo	.65	B	.94	E
11. Olympiad & La Paz	Mission Viejo	.59	A	.70	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.17	F	1.00	E
13. Empresa & Banderas	Rancho Santa Margarita	.94	E	.81	D
14. Empresa & Antonio	Rancho Santa Margarita	.62	B	.51	A
15. Banderas & Antonio	Rancho Santa Margarita	.73	C	.81	D
16. Cabot & Paseo de Valencia	Laguna Hills	.52	A	.71	C
17. Cabot & Oso	Laguna Hills	.70	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.83	D	.81	D
19. Felipe & Oso	Mission Viejo	.89	D	1.16	F
20. Antonio & Oso	County of Orange	1.36	F	1.15	F
21. Marguerite & Felipe	Mission Viejo	.72	C	.87	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.71	C	.82	D
23. Greenfield & Crown Valley	Laguna Niguel	.80	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.75	C	.99	E
25. Forbes & Crown Valley	Laguna Niguel	.89	D	1.04	F
26. Puerta Real & Crown Valley	Mission Viejo	.82	D	.97	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.88	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.94	E
29. Bellogente & Crown Valley	Mission Viejo	.72	C	.69	B
30. Marguerite & Crown Valley	Mission Viejo	1.14	F	1.08	F
31. Antonio & Crown Valley	County of Orange	.83	D	1.03	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.09	F	.86	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.50	A	.53	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.66	B
35. Camino Capistrano & Avery	Laguna Niguel	.42	A	.56	A
36. Marguerite & Avery	Mission Viejo	.81	D	.92	E
37. Golden Lantern & Marina Hills	Laguna Niguel	.89	D	.88	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.95	E	.92	E
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.62	B	.59	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.52	A	.39	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.84	D	.84	D
43. Del Obispo & Ortega	San Juan Capistrano	.68	B	.72	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.78	C	.94	E
45. La Novia & Ortega	San Juan Capistrano	.79	C	.97	E

Table F-3 (cont)
2025 ICU SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.71	F	1.43	F
47. Alipaz & Del Obispo	San Juan Capistrano	.69	B	.68	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	1.10	F	1.16	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.67	B	.80	C
50. Valle & San Juan Creek	San Juan Capistrano	.93	E	.85	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.16	F	1.08	F
53. Del Obispo & Del Avion	San Juan Capistrano	.70	B	.63	B
54. Alipaz & Del Avion	San Juan Capistrano	.42	A	.37	A
55. Del Obispo & Stonehill	Dana Point	.93	E	.96	E
58. Del Rio & Los Mares	San Clemente	.15	A	.14	A
60. La Pata & Vista Hermosa	San Clemente	.93	E	.77	C
61. Talega & Vista Hermosa	San Clemente	.60	A	.65	B
62. Vera Cruz & Los Mares	San Clemente	.63	B	.48	A
63. Vera Cruz & Vista Hermosa	San Clemente	1.04	F	1.21	F
64. La Pata & Pico	San Clemente	.82	D	.79	C
65. Vista Hermosa & Pico	San Clemente	.63	B	.74	C
66. PCH & Camino Capistrano	San Clemente	.74	C	.99	E
67. El Camino Real & Pico	San Clemente	.76	C	.94	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
74. Antonio & North River	County of Orange	.75	C	.82	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.73	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.46	A	.73	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.69	B	.84	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.89	D	.90	D
104. I-5 SB Ramps & Oso	Mission Viejo	.68	B	.80	C
105. I-5 NB Ramps & Oso	Mission Viejo	.78	C	.90	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.72	C	.97	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.75	C	.92	E
108. I-5 SB Ramps & Avery	Mission Viejo	.74	C	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.93	E	1.06	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.61	B	.73	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.50	A	.58	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.99	E	1.01	F
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	1.12	F	.99	E
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.87	D	.90	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.94	E	.98	E
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.20	F	1.34	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.33	A	.31	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.33	A	.33	A
119. I-5 SB Ramps & Estrella	San Clemente	.80	C	.95	E
120. I-5 NB Ramps & Estrella	San Clemente	.42	A	.61	B
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.49	A	.63	B
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.58	A	.58	A
123. I-5 SB Ramps & Pico	San Clemente	.94	E	1.22	F

Table F-3 (cont)
 2025 ICU SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
124. I-5 NB Ramps & Pico	San Clemente	.94	E	.85	D
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.64	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.38	A	.40	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.54	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.60	A	.46	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.80	C	1.11	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.93	F	.82	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.44	A	.66	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.44	F	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.87	D	1.32	F
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	1.58	F	.73	C

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-4
2025 ICU SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.98	E	1.04	F
2. Jeronimo & Alicia	Mission Viejo	.91	E	.92	E
3. Trabuco & Alicia	Mission Viejo	.93	E	.94	E
4. Marguerite & Alicia	Mission Viejo	.66	B	.71	C
5. Olympiad & Alicia	Mission Viejo	.65	B	.64	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.71	C	.88	D
7. Marguerite & Trabuco	Mission Viejo	.86	D	.88	D
8. Marguerite & Jeronimo	Mission Viejo	.95	E	.75	C
9. Olympiad & Jeronimo	Mission Viejo	.53	A	.44	A
10. Marguerite & La Paz	Mission Viejo	.67	B	.97	E
11. Olympiad & La Paz	Mission Viejo	.60	A	.71	C
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.12	F	.99	E
13. Empresa & Banderas	Rancho Santa Margarita	.94	E	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.60	A	.54	A
15. Banderas & Antonio	Rancho Santa Margarita	.74	C	.81	D
16. Cabot & Paseo de Valencia	Laguna Hills	.52	A	.70	B
17. Cabot & Oso	Laguna Hills	.72	C	1.06	F
18. Marguerite & Oso	Mission Viejo	.85	D	.84	D
19. Felipe & Oso	Mission Viejo	1.06	F	1.32	F
20. Antonio & Oso	County of Orange	1.38	F	1.46	F
21. Marguerite & Felipe	Mission Viejo	.79	C	1.03	F
22. Moulton & Crown Valley ¹	Laguna Niguel	.73	C	.85	D
23. Greenfield & Crown Valley	Laguna Niguel	.81	D	.91	E
24. Cabot & Crown Valley	Laguna Niguel	.75	C	1.04	F
25. Forbes & Crown Valley	Laguna Niguel	.88	D	1.05	F
26. Puerta Real & Crown Valley	Mission Viejo	.85	D	1.03	F
27. El Regateo & Crown Valley	Mission Viejo	.76	C	.95	E
28. Los Altos & Crown Valley	Mission Viejo	.77	C	.99	E
29. Bellogente & Crown Valley	Mission Viejo	.76	C	.75	C
30. Marguerite & Crown Valley	Mission Viejo	1.14	F	1.21	F
31. Antonio & Crown Valley	County of Orange	.95	E	1.18	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.14	F	.86	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.55	A	.53	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.48	A	.66	B
35. Camino Capistrano & Avery	Laguna Niguel	.42	A	.56	A
36. Marguerite & Avery	Mission Viejo	.91	E	.96	E
37. Golden Lantern & Marina Hills	Laguna Niguel	.94	E	.93	E
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	1.01	F	1.01	F
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.72	C	.72	C
41. Camino Capistrano & Oso Road	San Juan Capistrano	.55	A	.43	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.91	E	.85	D
43. Del Obispo & Ortega	San Juan Capistrano	.64	B	.77	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.94	E	1.13	F
45. La Novia & Ortega	San Juan Capistrano	1.16	F	1.46	F

Table F-4 (cont)
 2025 ICU SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	2.31	F	2.81	F
47. Alipaz & Del Obispo	San Juan Capistrano	.71	C	.71	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	1.11	F	1.16	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.76	C	.90	D
50. Valle & San Juan Creek	San Juan Capistrano	1.01	F	.98	E
51. La Novia & San Juan Creek	San Juan Capistrano	1.29	F	1.20	F
53. Del Obispo & Del Avion	San Juan Capistrano	.78	C	.69	B
54. Alipaz & Del Avion	San Juan Capistrano	.40	A	.38	A
55. Del Obispo & Stonehill	Dana Point	.95	E	1.01	F
58. Del Rio & Los Mares	San Clemente	.16	A	.13	A
60. La Pata & Vista Hermosa	San Clemente	.98	E	.83	D
61. Talega & Vista Hermosa	San Clemente	.54	A	.54	A
62. Vera Cruz & Los Mares	San Clemente	.51	A	.41	A
63. Vera Cruz & Vista Hermosa	San Clemente	1.07	F	1.20	F
64. La Pata & Pico	San Clemente	.83	D	.86	D
65. Vista Hermosa & Pico	San Clemente	.55	A	.79	C
66. PCH & Camino Capistrano	San Clemente	.68	B	.90	D
67. El Camino Real & Pico	San Clemente	.78	C	1.03	F
68. El Camino Real & Cristianitos	San Clemente	.17	A	.29	A
100. I-5 SB Ramps & Alicia	Laguna Hills	.74	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.48	A	.75	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.68	B	.93	E
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.86	D	.91	E
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.82	D
105. I-5 NB Ramps & Oso	Mission Viejo	.82	D	1.02	F
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.84	D	1.04	F
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.80	C	.99	E
108. I-5 SB Ramps & Avery	Mission Viejo	.78	C	.98	E
109. I-5 NB Ramps & Avery	Mission Viejo	1.04	F	1.07	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.66	B	.89	D
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.59	A	.63	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	1.21	F	1.16	F
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	1.19	F	1.10	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.97	E	1.05	F
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.88	D	.84	D
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.25	F	1.47	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.37	A	.38	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.29	A	.34	A
119. I-5 SB Ramps & Estrella	San Clemente	.74	C	.98	E
120. I-5 NB Ramps & Estrella	San Clemente	.41	A	.60	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.58	A	.58	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.70	B	.54	A
123. I-5 SB Ramps & Pico	San Clemente	1.01	F	1.20	F
124. I-5 NB Ramps & Pico	San Clemente	1.00	E	.88	D

Table F-4 (cont)
 2025 ICU SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
125. I-5 SB Ramp & El Camino Real	San Clemente	.46	A	.62	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.41	A	.39	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.24	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.55	A	.57	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.62	B	.44	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.15	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	2.06	F	.84	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.46	A	.71	C
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.52	F	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	1.00	E	.72	C
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	1.92	F	.40	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-5 2025 ICU SUMMARY – NO ACTION ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.98	E
2. Jeronimo & Alicia	Mission Viejo	.87	D	.87	D
3. Trabuco & Alicia	Mission Viejo	.86	D	.92	E
4. Marguerite & Alicia	Mission Viejo	.62	B	.66	B
5. Olympiad & Alicia	Mission Viejo	.63	B	.62	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.82	D
7. Marguerite & Trabuco	Mission Viejo	.80	C	.84	D
8. Marguerite & Jeronimo	Mission Viejo	.90	D	.70	B
9. Olympiad & Jeronimo	Mission Viejo	.48	A	.42	A
10. Marguerite & La Paz	Mission Viejo	.65	B	.88	D
11. Olympiad & La Paz	Mission Viejo	.57	A	.61	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.09	F	.94	E
13. Empresa & Banderas	Rancho Santa Margarita	.85	D	.76	C
14. Empresa & Antonio	Rancho Santa Margarita	.59	A	.49	A
15. Banderas & Antonio	Rancho Santa Margarita	.74	C	.75	C
16. Cabot & Paseo de Valencia	Laguna Hills	.52	A	.69	B
17. Cabot & Oso	Laguna Hills	.70	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.78	C	.74	C
19. Felipe & Oso	Mission Viejo	.82	D	1.06	F
20. Antonio & Oso	County of Orange	1.03	F	1.24	F
21. Marguerite & Felipe	Mission Viejo	.72	C	.83	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.74	C	.83	D
23. Greenfield & Crown Valley	Laguna Niguel	.80	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.74	C	.97	E
25. Forbes & Crown Valley	Laguna Niguel	.87	D	1.01	F
26. Puerta Real & Crown Valley	Mission Viejo	.83	D	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.73	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.95	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.69	B
30. Marguerite & Crown Valley	Mission Viejo	1.11	F	.97	E
31. Antonio & Crown Valley	County of Orange	.65	B	.97	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.08	F	.86	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.49	A	.52	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.64	B
35. Camino Capistrano & Avery	Laguna Niguel	.42	A	.55	A
36. Marguerite & Avery	Mission Viejo	.82	D	.91	E
37. Golden Lantern & Marina Hills	Laguna Niguel	.89	D	.88	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.93	E	.92	E
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.59	A	.61	B
41. Camino Capistrano & Oso Road	San Juan Capistrano	.52	A	.41	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.87	D	.79	C
43. Del Obispo & Ortega	San Juan Capistrano	.66	B	.73	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.79	C	.92	E
45. La Novia & Ortega	San Juan Capistrano	.79	C	1.08	F

Table F-5 (cont)
2025 ICU SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.61	F	1.49	F
47. Alipaz & Del Obispo	San Juan Capistrano	.68	B	.66	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	1.09	F	1.13	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.70	B	.80	C
50. Valle & San Juan Creek	San Juan Capistrano	.91	E	.86	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.35	F	1.24	F
53. Del Obispo & Del Avion	San Juan Capistrano	.70	B	.63	B
54. Alipaz & Del Avion	San Juan Capistrano	.41	A	.36	A
55. Del Obispo & Stonehill	Dana Point	.92	E	.96	E
58. Del Rio & Los Mares	San Clemente	.16	A	.14	A
60. La Pata & Vista Hermosa	San Clemente	.94	E	.73	C
61. Talega & Vista Hermosa	San Clemente	.42	A	.39	A
62. Vera Cruz & Los Mares	San Clemente	.72	C	.46	A
63. Vera Cruz & Vista Hermosa	San Clemente	1.01	F	1.12	F
64. La Pata & Pico	San Clemente	.76	C	.77	C
65. Vista Hermosa & Pico	San Clemente	.42	A	.64	B
66. PCH & Camino Capistrano	San Clemente	.73	C	.96	E
67. El Camino Real & Pico	San Clemente	.74	C	.95	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.29	A
100. I-5 SB Ramps & Alicia	Laguna Hills	.73	C	.84	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.47	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.70	B	.83	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.86	D	.88	D
104. I-5 SB Ramps & Oso	Mission Viejo	.66	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.78	C	.93	E
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.76	C	.98	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.92	E
108. I-5 SB Ramps & Avery	Mission Viejo	.77	C	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.97	E	1.00	E
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.61	B	.74	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.49	A	.57	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	1.05	F	1.01	F
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	1.05	F	.99	E
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.91	E	.92	E
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	1.01	F	1.07	F
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.20	F	1.37	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.32	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.36	A	.41	A
119. I-5 SB Ramps & Estrella	San Clemente	.82	D	.93	E
120. I-5 NB Ramps & Estrella	San Clemente	.45	A	.60	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.52	A	.61	B
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.57	A	.54	A
123. I-5 SB Ramps & Pico	San Clemente	.93	E	1.16	F
124. I-5 NB Ramps & Pico	San Clemente	.93	E	.78	C

Table F-5 (cont)
 2025 ICU SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
125. I-5 SB Ramp & El Camino Real	San Clemente	.43	A	.61	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.37	A	.39	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.24	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.24	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.52	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.56	A	.43	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.93	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.45	A	.66	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.48	F	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.56	A	.50	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	1.03	F	.39	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.99	E
2. Jeronimo & Alicia	Mission Viejo	.84	D	.87	D
3. Trabuco & Alicia	Mission Viejo	.80	C	.94	E
4. Marguerite & Alicia	Mission Viejo	.63	B	.61	B
5. Olympiad & Alicia	Mission Viejo	.60	A	.58	A
6. Santa Margarita & Alicia	Rancho Santa Margarita	.63	B	.78	C
7. Marguerite & Trabuco	Mission Viejo	.74	C	.81	D
8. Marguerite & Jeronimo	Mission Viejo	.88	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.47	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.60	A	.83	D
11. Olympiad & La Paz	Mission Viejo	.49	A	.51	A
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.08	F	.93	E
13. Empresa & Banderas	Rancho Santa Margarita	.79	C	.75	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.73	C	.72	C
16. Cabot & Paseo de Valencia	Laguna Hills	.47	A	.65	B
17. Cabot & Oso	Laguna Hills	.67	B	.98	E
18. Marguerite & Oso	Mission Viejo	.78	C	.70	B
19. Felipe & Oso	Mission Viejo	.74	C	.92	E
20. Antonio & Oso	County of Orange	.98	E	1.05	F
21. Marguerite & Felipe	Mission Viejo	.61	B	.77	C
22. Moulton & Crown Valley ¹	Laguna Niguel	.74	C	.79	C
23. Greenfield & Crown Valley	Laguna Niguel	.81	D	.85	D
24. Cabot & Crown Valley	Laguna Niguel	.72	C	.97	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.03	F
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.95	E
27. El Regateo & Crown Valley	Mission Viejo	.69	B	.84	D
28. Los Altos & Crown Valley	Mission Viejo	.69	B	.88	D
29. Bellogente & Crown Valley	Mission Viejo	.68	B	.64	B
30. Marguerite & Crown Valley	Mission Viejo	1.07	F	.92	E
31. Antonio & Crown Valley	County of Orange	.59	A	.92	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.08	F	.85	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.44	A	.51	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.49	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.41	A	.56	A
36. Marguerite & Avery	Mission Viejo	.75	C	.85	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.86	D	.86	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.92	E	.92	E
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.56	A	.56	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.51	A	.41	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.79	C	.82	D
43. Del Obispo & Ortega	San Juan Capistrano	.67	B	.72	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.75	C	.85	D
45. La Novia & Ortega	San Juan Capistrano	.78	C	.97	E

Table F-6 (cont)
2025 ICU SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH NO FUTURE DEVELOPMENT IN RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.45	F	1.27	F
47. Alipaz & Del Obispo	San Juan Capistrano	.69	B	.66	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	1.09	F	1.14	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.71	C	.75	C
50. Valle & San Juan Creek	San Juan Capistrano	.92	E	.86	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.30	F	1.26	F
53. Del Obispo & Del Avion	San Juan Capistrano	.69	B	.64	B
54. Alipaz & Del Avion	San Juan Capistrano	.42	A	.35	A
55. Del Obispo & Stonehill	Dana Point	.92	E	.96	E
58. Del Rio & Los Mares	San Clemente	.16	A	.14	A
60. La Pata & Vista Hermosa	San Clemente	.92	E	.70	B
61. Talega & Vista Hermosa	San Clemente	.41	A	.38	A
62. Vera Cruz & Los Mares	San Clemente	.71	C	.42	A
63. Vera Cruz & Vista Hermosa	San Clemente	1.00	E	1.12	F
64. La Pata & Pico	San Clemente	.73	C	.76	C
65. Vista Hermosa & Pico	San Clemente	.43	A	.63	B
66. PCH & Camino Capistrano	San Clemente	.71	C	.95	E
67. El Camino Real & Pico	San Clemente	.73	C	.94	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.29	A
100. I-5 SB Ramps & Alicia	Laguna Hills	.73	C	.85	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.46	A	.71	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.71	C	.85	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.88	D	.80	C
104. I-5 SB Ramps & Oso	Mission Viejo	.68	B	.77	C
105. I-5 NB Ramps & Oso	Mission Viejo	.76	C	.87	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.95	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.88	D
108. I-5 SB Ramps & Avery	Mission Viejo	.72	C	.93	E
109. I-5 NB Ramps & Avery	Mission Viejo	.89	D	1.02	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.60	A	.73	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.47	A	.58	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	1.03	F	.97	E
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.97	E	.92	E
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.88	D	.90	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.97	E	1.15	F
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.21	F	1.33	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.29	A	.31	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.38	A	.36	A
119. I-5 SB Ramps & Estrella	San Clemente	.85	D	.93	E
120. I-5 NB Ramps & Estrella	San Clemente	.47	A	.61	B
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.52	A	.58	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.57	A	.53	A
123. I-5 SB Ramps & Pico	San Clemente	.87	D	.96	E
124. I-5 NB Ramps & Pico	San Clemente	.94	E	.73	C

Table F-6 (cont)
 2025 ICU SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH NO FUTURE DEVELOPMENT IN RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.59	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.37	A	.40	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.24	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.51	A	.50	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.54	A	.45	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.10	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.93	F	.82	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.43	A	.67	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.38	F	.51	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.47	A	.49	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.82	D	.40	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-7
 2025 ICU SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.99	E
2. Jeronimo & Alicia	Mission Viejo	.73	C	.80	C
3. Trabuco & Alicia	Mission Viejo	.73	C	.75	C
4. Marguerite & Alicia	Mission Viejo	.59	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.83	D	.74	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.67	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.75	C
8. Marguerite & Jeronimo	Mission Viejo	.84	D	.70	B
9. Olympiad & Jeronimo	Mission Viejo	.70	B	.49	A
10. Marguerite & La Paz	Mission Viejo	.64	B	.93	E
11. Olympiad & La Paz	Mission Viejo	.55	A	.72	C
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.14	F	1.00	E
13. Empresa & Banderas	Rancho Santa Margarita	.92	E	.82	D
14. Empresa & Antonio	Rancho Santa Margarita	.62	B	.51	A
15. Banderas & Antonio	Rancho Santa Margarita	.74	C	.80	C
16. Cabot & Paseo de Valencia	Laguna Hills	.52	A	.71	C
17. Cabot & Oso	Laguna Hills	.70	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.82	D	.79	C
19. Felipe & Oso	Mission Viejo	.93	E	1.17	F
20. Antonio & Oso	County of Orange	1.30	F	1.15	F
21. Marguerite & Felipe	Mission Viejo	.73	C	.89	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.65	B	.74	C
23. Greenfield & Crown Valley	Laguna Niguel	.75	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.70	B	.94	E
25. Forbes & Crown Valley	Laguna Niguel	.86	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.81	D	.95	E
27. El Regateo & Crown Valley	Mission Viejo	.71	C	.86	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.15	F	1.06	F
31. Antonio & Crown Valley	County of Orange	.85	D	1.01	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.61	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.46	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.40	A	.50	A
35. Camino Capistrano & Avery	Laguna Niguel	.59	A	.70	B
36. Marguerite & Avery	Mission Viejo	.76	C	.84	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.81	D	.72	C
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.61	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.92	E	.71	C
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.63	B	.63	B
41. Camino Capistrano & Oso Road	San Juan Capistrano	.68	B	.57	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.64	B	.64	B
43. Del Obispo & Ortega	San Juan Capistrano	.60	A	.68	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.81	D	.98	E

Table F-7 (cont)
2025 ICU SUMMARY – NO ACTION ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.80	C	.83	D
46. Antonio/La Pata & Ortega	County of Orange	1.20	F	1.02	F
47. Alipaz & Del Obispo	San Juan Capistrano	.67	B	.80	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.91	E	1.05	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.69	B	.85	D
50. Valle & San Juan Creek	San Juan Capistrano	.64	B	.82	D
51. La Novia & San Juan Creek	San Juan Capistrano	.85	D	.73	C
52. La Pata & San Juan Creek	County of Orange	.72	C	.91	E
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.65	B	.76	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.28	A	.49	A
57. La Pata & Las Ramblas	County of Orange	.69	B	.58	A
58. Del Rio & Los Mares	San Clemente	.46	A	.54	A
59. La Pata & Del Rio	San Clemente	.86	D	.99	E
60. La Pata & Vista Hermosa	San Clemente	1.03	F	.86	D
61. Talega & Vista Hermosa	San Clemente	.54	A	.49	A
62. Vera Cruz & Los Mares	San Clemente	.44	A	.26	A
63. Vera Cruz & Vista Hermosa	San Clemente	.68	B	.72	C
64. La Pata & Pico	San Clemente	.91	E	1.04	F
65. Vista Hermosa & Pico	San Clemente	.54	A	.71	C
66. PCH & Camino Capistrano	San Clemente	.40	A	.53	A
67. El Camino Real & Pico	San Clemente	.53	A	.58	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
74. Antonio & North River	County of Orange	.85	D	.98	E
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.61	B	.71	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.90	D	.89	D
104. I-5 SB Ramps & Oso	Mission Viejo	.67	B	.80	C
105. I-5 NB Ramps & Oso	Mission Viejo	.78	C	.85	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.72	C	.95	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.72	C	.87	D
108. I-5 SB Ramps & Avery	Mission Viejo	.57	A	.68	B
109. I-5 NB Ramps & Avery	Mission Viejo	.61	B	.73	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.67	B	.75	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.56	A	.64	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.82	D	.89	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.61	B	.66	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.76	C	.89	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.86	D	.91	E
116. Camino Capistrano & Stonehill	San Juan Capistrano	.71	C	.85	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.31	A	.36	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.25	A	.36	A

Table F-7 (cont)
 2025 ICU SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
119. I-5 SB Ramps & Estrella	San Clemente	.69	B	.82	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.41	A	.44	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.60	A	.51	A
123. I-5 SB Ramps & Pico	San Clemente	1.06	F	1.04	F
124. I-5 NB Ramps & Pico	San Clemente	.91	E	.79	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.46	A	.62	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.41	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.51	A	.54	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.56	A	.38	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.80	C	1.11	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.67	B	.82	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.45	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.21	F	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.86	D	1.31	F
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	1.54	F	.72	C

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-8
2025 ICU SUMMARY – NO ACTION ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.96	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.74	C	.83	D
3. Trabuco & Alicia	Mission Viejo	.75	C	.73	C
4. Marguerite & Alicia	Mission Viejo	.60	A	.68	B
5. Olympiad & Alicia	Mission Viejo	.82	D	.77	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.67	B	.86	D
7. Marguerite & Trabuco	Mission Viejo	.68	B	.78	C
8. Marguerite & Jeronimo	Mission Viejo	.87	D	.76	C
9. Olympiad & Jeronimo	Mission Viejo	.75	C	.53	A
10. Marguerite & La Paz	Mission Viejo	.66	B	.90	D
11. Olympiad & La Paz	Mission Viejo	.55	A	.73	C
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.15	F	.98	E
13. Empresa & Banderas	Rancho Santa Margarita	.94	E	.79	C
14. Empresa & Antonio	Rancho Santa Margarita	.58	A	.49	A
15. Banderas & Antonio	Rancho Santa Margarita	.73	C	.78	C
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.73	C
17. Cabot & Oso	Laguna Hills	.67	B	1.07	F
18. Marguerite & Oso	Mission Viejo	.86	D	.85	D
19. Felipe & Oso	Mission Viejo	.95	E	1.22	F
20. Antonio & Oso	County of Orange	1.21	F	1.11	F
21. Marguerite & Felipe	Mission Viejo	.81	D	1.06	F
22. Moulton & Crown Valley ¹	Laguna Niguel	.68	B	.76	C
23. Greenfield & Crown Valley	Laguna Niguel	.81	D	.89	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.99	E
25. Forbes & Crown Valley	Laguna Niguel	.87	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.84	D	1.00	E
27. El Regateo & Crown Valley	Mission Viejo	.74	C	.93	E
28. Los Altos & Crown Valley	Mission Viejo	.75	C	.98	E
29. Bellogente & Crown Valley	Mission Viejo	.75	C	.73	C
30. Marguerite & Crown Valley	Mission Viejo	1.26	F	1.23	F
31. Antonio & Crown Valley	County of Orange	1.40	F	1.19	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.79	C	.64	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.50	A	.45	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.42	A	.51	A
35. Camino Capistrano & Avery	Laguna Niguel	.59	A	.78	C
36. Marguerite & Avery	Mission Viejo	.85	D	.90	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.82	D	.73	C
38. Camino Capistrano & Los Padres	San Juan Capistrano	.38	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.98	E	.74	C
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.67	B	.69	B
41. Camino Capistrano & Oso Road	San Juan Capistrano	.74	C	.58	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.66	B	.62	B
43. Del Obispo & Ortega	San Juan Capistrano	.56	A	.64	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.90	D	1.03	F

Table F-8 (cont)
 2025 ICU SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.90	D	.89	D
46. Antonio/La Pata & Ortega	County of Orange	1.25	F	1.95	F
47. Alipaz & Del Obispo	San Juan Capistrano	.66	B	.78	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.87	D	1.10	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.75	C	.87	D
50. Valle & San Juan Creek	San Juan Capistrano	.67	B	.79	C
51. La Novia & San Juan Creek	San Juan Capistrano	.88	D	.80	C
52. La Pata & San Juan Creek	County of Orange	.82	D	1.15	F
53. Del Obispo & Del Avion	San Juan Capistrano	.68	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.63	B	.79	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.43	A	.53	A
57. La Pata & Las Ramblas	County of Orange	.83	D	.61	B
58. Del Rio & Los Mares	San Clemente	.55	A	.55	A
59. La Pata & Del Rio	San Clemente	.90	D	1.01	F
60. La Pata & Vista Hermosa	San Clemente	1.00	E	.97	E
61. Talega & Vista Hermosa	San Clemente	.49	A	.44	A
62. Vera Cruz & Los Mares	San Clemente	.46	A	.29	A
63. Vera Cruz & Vista Hermosa	San Clemente	.70	B	.76	C
64. La Pata & Pico	San Clemente	.88	D	1.07	F
65. Vista Hermosa & Pico	San Clemente	.51	A	.79	C
66. PCH & Camino Capistrano	San Clemente	.41	A	.52	A
67. El Camino Real & Pico	San Clemente	.51	A	.62	B
68. El Camino Real & Cristianitos	San Clemente	.17	A	.29	A
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.56	A	.76	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.90	D	.85	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.76	C
105. I-5 NB Ramps & Oso	Mission Viejo	.92	E	.87	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.75	C	1.07	F
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.96	E
108. I-5 SB Ramps & Avery	Mission Viejo	.57	A	.71	C
109. I-5 NB Ramps & Avery	Mission Viejo	.63	B	.70	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.70	B	.81	D
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.62	B	.62	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.84	D	.93	E
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.61	B	.66	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.82	D	.92	E
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.68	B	.72	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.73	C	.87	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.36	A	.44	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.29	A	.42	A
119. I-5 SB Ramps & Estrella	San Clemente	.73	C	.81	D

Table F-8 (cont)
 2025 ICU SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
120. I-5 NB Ramps & Estrella	San Clemente	.38	A	.50	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.43	A	.45	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.64	B	.54	A
123. I-5 SB Ramps & Pico	San Clemente	1.00	E	1.12	F
124. I-5 NB Ramps & Pico	San Clemente	.93	E	.78	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.46	A	.62	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.39	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.24	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.54	A	.57	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.40	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.11	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.65	B	.81	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.44	A	.67	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.29	F	.51	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.82	D	.67	B
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	1.73	F	.41	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-9
2025 ICU SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.87	D	.85	D
3. Trabuco & Alicia	Mission Viejo	.81	D	.95	E
4. Marguerite & Alicia	Mission Viejo	.63	B	.65	B
5. Olympiad & Alicia	Mission Viejo	.62	B	.61	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.75	C	.80	C
8. Marguerite & Jeronimo	Mission Viejo	.84	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.49	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.86	D
11. Olympiad & La Paz	Mission Viejo	.56	A	.62	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.08	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.83	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.48	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.70	B
16. Cabot & Paseo de Valencia	Laguna Hills	.50	A	.64	B
17. Cabot & Oso	Laguna Hills	.69	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.81	D	.79	C
19. Felipe & Oso	Mission Viejo	.82	D	1.06	F
20. Antonio & Oso	County of Orange	1.16	F	1.15	F
21. Marguerite & Felipe	Mission Viejo	.67	B	.84	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.70	B	.79	C
23. Greenfield & Crown Valley	Laguna Niguel	.79	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.74	C	.98	E
25. Forbes & Crown Valley	Laguna Niguel	.88	D	1.02	F
26. Puerta Real & Crown Valley	Mission Viejo	.82	D	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	1.02	F
31. Antonio & Crown Valley	County of Orange	.82	D	1.03	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.05	F	.83	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.51	A	.52	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.42	A	.57	A
36. Marguerite & Avery	Mission Viejo	.70	B	.87	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.85	D	.83	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.87	D	.87	D
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.58	A	.55	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.48	A	.37	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.73	C	.71	C
43. Del Obispo & Ortega	San Juan Capistrano	.67	B	.72	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.73	C	.94	E
45. La Novia & Ortega	San Juan Capistrano	.76	C	.89	D

Table F-9 (cont)
2025 ICU SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.63	F	1.38	F
47. Alipaz & Del Obispo	San Juan Capistrano	.70	B	.69	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.98	E	1.05	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.61	B	.71	C
50. Valle & San Juan Creek	San Juan Capistrano	.93	E	.85	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.04	F	.93	E
53. Del Obispo & Del Avion	San Juan Capistrano	.68	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.41	A	.35	A
55. Del Obispo & Stonehill	Dana Point	.93	E	.95	E
58. Del Rio & Los Mares	San Clemente	.15	A	.13	A
60. La Pata & Vista Hermosa	San Clemente	.72	C	.65	B
61. Talega & Vista Hermosa	San Clemente	.56	A	.60	A
62. Vera Cruz & Los Mares	San Clemente	.37	A	.36	A
63. Vera Cruz & Vista Hermosa	San Clemente	.88	D	.94	E
64. La Pata & Pico	San Clemente	.66	B	.87	D
65. Vista Hermosa & Pico	San Clemente	.60	A	.66	B
66. PCH & Camino Capistrano	San Clemente	.57	A	.88	D
67. El Camino Real & Pico	San Clemente	.70	B	.95	E
68. El Camino Real & Cristianitos	San Clemente	.36	A	.55	A
74. Antonio & North River	County of Orange	.83	D	.83	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.46	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.64	B	.84	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.88	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.80	C	.89	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.95	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.76	C	.90	D
108. I-5 SB Ramps & Avery	Mission Viejo	.71	C	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.90	D	1.06	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.59	A	.66	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.49	A	.54	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.95	E	1.02	F
113. I-5 NB Ramps & Ortega ¹ (a)	San Juan Capistrano	1.16	F	1.07	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.80	C	.85	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.84	D	.82	D
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.11	F	1.34	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.35	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.28	A	.33	A
119. I-5 SB Ramps & Estrella	San Clemente	.69	B	.89	D
120. I-5 NB Ramps & Estrella	San Clemente	.35	A	.57	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.47	A	.54	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.51	A	.53	A
123. I-5 SB Ramps & Pico	San Clemente	.87	D	1.00	E

Table F-9 (cont)
 2025 ICU SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
124. I-5 NB Ramps & Pico	San Clemente	.88	D	.74	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.42	A	.59	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.35	A	.42	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.25	A	.33	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.36	A	.54	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.53	A	.54	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.48	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.90	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.47	A	.71	C
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.33	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.56	A	.53	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.85	D	.55	A
160. SR 241 SB Ramps & C St	County of Orange	.49	A	.54	A
161. SR 241 NB Ramps & C St	County of Orange	.57	A	.35	A
162. SR 241 SB Ramps & North River	County of Orange	.45	A	.53	A
163. SR 241 NB Ramps & North River	County of Orange	.72	C	.67	B
169. SR 241 SB Ramps & Pico	County of Orange	.62	B	.78	C
170. SR 241 NB Ramps & Pico	County of Orange	.58	A	.65	B
174. Cristianitos & SR 241 Ramps	San Diego County	.36	A	.49	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Table F-10
 2025 ICU SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.93	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.79	C
3. Trabuco & Alicia	Mission Viejo	.67	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.57	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.77	C	.69	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.84	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.71	C
8. Marguerite & Jeronimo	Mission Viejo	.81	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.55	A	.46	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.86	D
11. Olympiad & La Paz	Mission Viejo	.53	A	.66	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.09	F	.97	E
13. Empresa & Banderas	Rancho Santa Margarita	.82	D	.73	C
14. Empresa & Antonio	Rancho Santa Margarita	.60	A	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.69	B
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.66	B
17. Cabot & Oso	Laguna Hills	.69	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.79	C	.77	C
19. Felipe & Oso	Mission Viejo	.85	D	1.06	F
20. Antonio & Oso	County of Orange	.98	E	1.00	E
21. Marguerite & Felipe	Mission Viejo	.68	B	.85	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.64	B	.73	C
23. Greenfield & Crown Valley	Laguna Niguel	.76	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.68	B	.90	D
25. Forbes & Crown Valley	Laguna Niguel	.85	D	.99	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.70	B	.86	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	.99	E
31. Antonio & Crown Valley	County of Orange	.82	D	1.00	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.77	C	.61	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.45	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.40	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.61	B	.72	C
36. Marguerite & Avery	Mission Viejo	.70	B	.83	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.69	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.87	D	.65	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.64	B	.59	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.65	B	.51	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.55	A	.56	A
43. Del Obispo & Ortega	San Juan Capistrano	.57	A	.63	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.78	C	.97	E

Table F-10 (cont)
 2025 ICU SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.78	C	.76	C
46. Antonio/La Pata & Ortega	County of Orange	1.17	F	1.01	F
47. Alipaz & Del Obispo	San Juan Capistrano	.66	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.82	D	1.00	E
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.64	B	.85	D
50. Valle & San Juan Creek	San Juan Capistrano	.63	B	.77	C
51. La Novia & San Juan Creek	San Juan Capistrano	.81	D	.73	C
52. La Pata & San Juan Creek	County of Orange	.72	C	.78	C
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.29	A	.31	A
57. La Pata & Las Ramblas	County of Orange	.48	A	.47	A
58. Del Rio & Los Mares	San Clemente	.31	A	.27	A
59. La Pata & Del Rio	San Clemente	.50	A	.63	B
60. La Pata & Vista Hermosa	San Clemente	.74	C	.65	B
61. Talega & Vista Hermosa	San Clemente	.49	A	.45	A
62. Vera Cruz & Los Mares	San Clemente	.38	A	.21	A
63. Vera Cruz & Vista Hermosa	San Clemente	.63	B	.62	B
64. La Pata & Pico	San Clemente	.66	B	.86	D
65. Vista Hermosa & Pico	San Clemente	.54	A	.60	A
66. PCH & Camino Capistrano	San Clemente	.39	A	.51	A
67. El Camino Real & Pico	San Clemente	.46	A	.57	A
68. El Camino Real & Cristianitos	San Clemente	.32	A	.54	A
74. Antonio & North River	County of Orange	.90	D	.89	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.57	A	.73	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.87	D	.83	D
104. I-5 SB Ramps & Oso	Mission Viejo	.66	B	.78	C
105. I-5 NB Ramps & Oso	Mission Viejo	.77	C	.86	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.72	C	.93	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.86	D
108. I-5 SB Ramps & Avery	Mission Viejo	.58	A	.73	C
109. I-5 NB Ramps & Avery	Mission Viejo	.63	B	.71	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.64	B	.70	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.56	A	.62	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.80	C	.88	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.59	A	.64	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.72	C	.86	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.76	C	.75	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.68	B	.83	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.37	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.27	A	.36	A

Table F-10 (cont)
 2025 ICU SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.82	D
120. I-5 NB Ramps & Estrella	San Clemente	.35	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.42	A	.48	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.49	A	.48	A
123. I-5 SB Ramps & Pico	San Clemente	.78	C	.85	D
124. I-5 NB Ramps & Pico	San Clemente	.86	D	.67	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.41	A	.54	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.43	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.24	A	.30	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.34	A	.53	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.52	A	.51	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.57	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.68	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.46	A	.70	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.13	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.56	A	.49	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.86	D	.54	A
160. SR 241 SB Ramps & C St	County of Orange	.49	A	.54	A
161. SR 241 NB Ramps & C St	County of Orange	.57	A	.35	A
162. SR 241 SB Ramps & North River	County of Orange	.37	A	.49	A
163. SR 241 NB Ramps & North River	County of Orange	.65	B	.57	A
169. SR 241 SB Ramps & Pico	County of Orange	.48	A	.64	B
170. SR 241 NB Ramps & Pico	County of Orange	.53	A	.63	B
174. Cristianitos & SR 241 Ramps	San Diego County	.32	A	.47	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-11
 2025 ICU SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.93	E
2. Jeronimo & Alicia	Mission Viejo	.73	C	.82	D
3. Trabuco & Alicia	Mission Viejo	.73	C	.73	C
4. Marguerite & Alicia	Mission Viejo	.59	A	.70	B
5. Olympiad & Alicia	Mission Viejo	.81	D	.75	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.68	B	.88	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.72	C
8. Marguerite & Jeronimo	Mission Viejo	.86	D	.72	C
9. Olympiad & Jeronimo	Mission Viejo	.63	B	.49	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.89	D
11. Olympiad & La Paz	Mission Viejo	.57	A	.69	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.13	F	.98	E
13. Empresa & Banderas	Rancho Santa Margarita	.94	E	.75	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.49	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.74	C
16. Cabot & Paseo de Valencia	Laguna Hills	.52	A	.70	B
17. Cabot & Oso	Laguna Hills	.73	C	1.06	F
18. Marguerite & Oso	Mission Viejo	.83	D	.80	C
19. Felipe & Oso	Mission Viejo	.91	E	1.22	F
20. Antonio & Oso	County of Orange	1.16	F	1.03	F
21. Marguerite & Felipe	Mission Viejo	.71	C	1.00	E
22. Moulton & Crown Valley ¹	Laguna Niguel	.65	B	.74	C
23. Greenfield & Crown Valley	Laguna Niguel	.78	C	.88	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.93	E
25. Forbes & Crown Valley	Laguna Niguel	.86	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.83	D	.98	E
27. El Regateo & Crown Valley	Mission Viejo	.73	C	.91	E
28. Los Altos & Crown Valley	Mission Viejo	.75	C	.96	E
29. Bellogente & Crown Valley	Mission Viejo	.74	C	.71	C
30. Marguerite & Crown Valley	Mission Viejo	1.16	F	1.16	F
31. Antonio & Crown Valley	County of Orange	1.10	F	1.02	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.62	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.48	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.42	A	.50	A
35. Camino Capistrano & Avery	Laguna Niguel	.62	B	.77	C
36. Marguerite & Avery	Mission Viejo	.73	C	.88	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.81	D	.68	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.37	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.86	D	.64	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.64	B	.58	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.66	B	.52	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.52	A	.57	A
43. Del Obispo & Ortega	San Juan Capistrano	.57	A	.65	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.76	C	.97	E

Table F-11 (cont)
2025 ICU SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.79	C	.81	D
46. Antonio/La Pata & Ortega	County of Orange	.90	D	1.26	F
47. Alipaz & Del Obispo	San Juan Capistrano	.64	B	.78	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.84	D	1.02	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.66	B	.87	D
50. Valle & San Juan Creek	San Juan Capistrano	.70	B	.79	C
51. La Novia & San Juan Creek	San Juan Capistrano	.86	D	.76	C
52. La Pata & San Juan Creek	County of Orange	.78	C	.94	E
53. Del Obispo & Del Avion	San Juan Capistrano	.65	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.63	B	.77	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.34	A	.30	A
57. La Pata & Las Ramblas	County of Orange	.56	A	.48	A
58. Del Rio & Los Mares	San Clemente	.33	A	.25	A
59. La Pata & Del Rio	San Clemente	.56	A	.64	B
60. La Pata & Vista Hermosa	San Clemente	.76	C	.64	B
61. Talega & Vista Hermosa	San Clemente	.47	A	.49	A
62. Vera Cruz & Los Mares	San Clemente	.36	A	.20	A
63. Vera Cruz & Vista Hermosa	San Clemente	.64	B	.62	B
64. La Pata & Pico	San Clemente	.67	B	.88	D
65. Vista Hermosa & Pico	San Clemente	.54	A	.66	B
66. PCH & Camino Capistrano	San Clemente	.38	A	.50	A
67. El Camino Real & Pico	San Clemente	.47	A	.56	A
68. El Camino Real & Cristianitos	San Clemente	.34	A	.54	A
100. I-5 SB Ramps & Alicia	Laguna Hills	.71	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.57	A	.75	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.86	D	.83	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.84	D	.88	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.75	C	1.04	F
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.93	E
108. I-5 SB Ramps & Avery	Mission Viejo	.58	A	.74	C
109. I-5 NB Ramps & Avery	Mission Viejo	.67	B	.69	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.63	B	.71	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.57	A	.60	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.79	C	.91	E
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.60	A	.65	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.73	C	.89	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.71	C	.71	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.69	B	.84	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.33	A	.39	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.29	A	.38	A
119. I-5 SB Ramps & Estrella	San Clemente	.68	B	.82	D

Table F-11 (cont)
 2025 ICU SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.51	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.43	A	.47	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.49	A	.46	A
123. I-5 SB Ramps & Pico	San Clemente	.83	D	.91	E
124. I-5 NB Ramps & Pico	San Clemente	.86	D	.68	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.57	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.38	A	.41	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.25	A	.31	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.35	A	.54	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.53	A	.54	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.40	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.77	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.67	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.43	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.12	F	.50	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.41	A	.37	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.72	C	.38	A
158. SR 241 SB Ramps & Crown Valley	County of Orange	.22	A	.40	A
159. SR 241 NB Ramps & Crown Valley	County of Orange	.52	A	.25	A
164. SR 241 SB Ramps & Ortega Access	County of Orange	.16	A	.66	B
165. SR 241 NB Ramps & Ortega Access	County of Orange	.56	A	.66	B
166. SR 241 Access Rd & Ortega	County of Orange	.60	A	.63	B
169. SR 241 SB Ramps & Pico	County of Orange	.65	B	.75	C
170. SR 241 NB Ramps & Pico	County of Orange	.66	B	.71	C
174. Cristianitos & SR 241 Ramps	San Diego County	.34	A	.47	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-12
2025 ICU SUMMARY – FEC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.92	E	.89	D
2. Jeronimo & Alicia	Mission Viejo	.66	B	.77	C
3. Trabuco & Alicia	Mission Viejo	.65	B	.70	B
4. Marguerite & Alicia	Mission Viejo	.58	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.71	C	.68	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.47	A	.78	C
7. Marguerite & Trabuco	Mission Viejo	.60	A	.64	B
8. Marguerite & Jeronimo	Mission Viejo	.82	D	.66	B
9. Olympiad & Jeronimo	Mission Viejo	.46	A	.45	A
10. Marguerite & La Paz	Mission Viejo	.58	A	.76	C
11. Olympiad & La Paz	Mission Viejo	.57	A	.59	A
12. Empresa & Santa Margarita	Rancho Santa Margarita	.81	D	.76	C
13. Empresa & Banderas	Rancho Santa Margarita	.92	E	.69	B
14. Empresa & Antonio	Rancho Santa Margarita	.53	A	.52	A
15. Banderas & Antonio	Rancho Santa Margarita	.73	C	.73	C
16. Cabot & Paseo de Valencia	Laguna Hills	.41	A	.57	A
17. Cabot & Oso	Laguna Hills	.69	B	.96	E
18. Marguerite & Oso	Mission Viejo	.78	C	.71	C
19. Felipe & Oso	Mission Viejo	.88	D	1.14	F
20. Antonio & Oso	County of Orange	1.07	F	1.01	F
21. Marguerite & Felipe	Mission Viejo	.70	B	.97	E
22. Moulton & Crown Valley ¹	Laguna Niguel	.61	B	.71	C
23. Greenfield & Crown Valley	Laguna Niguel	.79	C	.90	D
24. Cabot & Crown Valley	Laguna Niguel	.66	B	.91	E
25. Forbes & Crown Valley	Laguna Niguel	.83	D	.97	E
26. Puerta Real & Crown Valley	Mission Viejo	.81	D	.99	E
27. El Regateo & Crown Valley	Mission Viejo	.73	C	.88	D
28. Los Altos & Crown Valley	Mission Viejo	.74	C	.96	E
29. Bellogente & Crown Valley	Mission Viejo	.73	C	.72	C
30. Marguerite & Crown Valley	Mission Viejo	1.13	F	1.11	F
31. Antonio & Crown Valley	County of Orange	.99	E	1.04	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.77	C	.59	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.43	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.45	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.65	B	.74	C
36. Marguerite & Avery	Mission Viejo	.70	B	.89	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.75	C	.67	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.37	A	.63	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.85	D	.61	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.64	B	.56	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.63	B	.50	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.50	A	.55	A
43. Del Obispo & Ortega	San Juan Capistrano	.58	A	.66	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.76	C	.95	E

Table F-12 (cont)
 2025 ICU SUMMARY – FEC-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.77	C	.78	C
46. Antonio/La Pata & Ortega	County of Orange	.88	D	1.18	F
47. Alipaz & Del Obispo	San Juan Capistrano	.63	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.83	D	1.01	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.65	B	.85	D
50. Valle & San Juan Creek	San Juan Capistrano	.64	B	.79	C
51. La Novia & San Juan Creek	San Juan Capistrano	.84	D	.73	C
52. La Pata & San Juan Creek	County of Orange	.74	C	.83	D
53. Del Obispo & Del Avion	San Juan Capistrano	.64	B	.59	A
54. Alipaz & Del Avion	San Juan Capistrano	.35	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.34	A	.29	A
57. La Pata & Las Ramblas	County of Orange	.50	A	.43	A
58. Del Rio & Los Mares	San Clemente	.33	A	.23	A
59. La Pata & Del Rio	San Clemente	.50	A	.59	A
60. La Pata & Vista Hermosa	San Clemente	.72	C	.62	B
61. Talega & Vista Hermosa	San Clemente	.47	A	.46	A
62. Vera Cruz & Los Mares	San Clemente	.36	A	.18	A
63. Vera Cruz & Vista Hermosa	San Clemente	.63	B	.60	A
64. La Pata & Pico	San Clemente	.64	B	.87	D
65. Vista Hermosa & Pico	San Clemente	.56	A	.66	B
66. PCH & Camino Capistrano	San Clemente	.38	A	.49	A
67. El Camino Real & Pico	San Clemente	.45	A	.55	A
68. El Camino Real & Cristianitos	San Clemente	.38	A	.57	A
100. I-5 SB Ramps & Alicia	Laguna Hills	.69	B	.82	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.48	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.53	A	.71	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.73	C	.79	C
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.81	D
105. I-5 NB Ramps & Oso	Mission Viejo	.78	C	.88	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.74	C	1.04	F
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.75	C	.93	E
108. I-5 SB Ramps & Avery	Mission Viejo	.61	B	.73	C
109. I-5 NB Ramps & Avery	Mission Viejo	.72	C	.68	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.63	B	.67	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.59	A	.58	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.77	C	.91	E
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.58	A	.65	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.73	C	.89	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.70	B	.73	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.68	B	.84	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.31	A	.40	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.28	A	.38	A
119. I-5 SB Ramps & Estrella	San Clemente	.68	B	.84	D

Table F-12 (cont)
 2025 ICU SUMMARY – FEC-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.51	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.41	A	.45	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.48	A	.45	A
123. I-5 SB Ramps & Pico	San Clemente	.84	D	.91	E
124. I-5 NB Ramps & Pico	San Clemente	.84	D	.67	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.57	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.38	A	.42	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.25	A	.32	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.39	A	.56	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.58	A	.57	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.42	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.92	E	1.28	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.73	C	.86	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.57	A	.74	C
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.33	F	.51	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.42	A	.45	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.65	B	.41	A
158. SR 241 SB Ramps & Crown Valley	County of Orange	.31	A	.62	B
159. SR 241 NB Ramps & Crown Valley	County of Orange	.69	B	.33	A
164. SR 241 SB Ramps & Ortega Access	County of Orange	.23	A	.77	C
165. SR 241 NB Ramps & Ortega Access	County of Orange	.56	A	.77	C
166. SR 241 Access Rd & Ortega	County of Orange	.62	B	.67	B
169. SR 241 SB Ramps & Pico	County of Orange	.71	C	.81	D
170. SR 241 NB Ramps & Pico	County of Orange	.69	B	.73	C
174. Cristianitos & SR 241 Ramps	San Diego County	.37	A	.49	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-13 2025 ICU SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.95	E
2. Jeronimo & Alicia	Mission Viejo	.87	D	.84	D
3. Trabuco & Alicia	Mission Viejo	.80	C	.95	E
4. Marguerite & Alicia	Mission Viejo	.63	B	.65	B
5. Olympiad & Alicia	Mission Viejo	.62	B	.60	A
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.84	D
7. Marguerite & Trabuco	Mission Viejo	.74	C	.81	D
8. Marguerite & Jeronimo	Mission Viejo	.84	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.48	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.87	D
11. Olympiad & La Paz	Mission Viejo	.55	A	.62	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.08	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.83	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.48	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.70	B
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.63	B
17. Cabot & Oso	Laguna Hills	.69	B	1.02	F
18. Marguerite & Oso	Mission Viejo	.80	C	.79	C
19. Felipe & Oso	Mission Viejo	.82	D	1.05	F
20. Antonio & Oso	County of Orange	1.16	F	1.15	F
21. Marguerite & Felipe	Mission Viejo	.67	B	.84	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.70	B	.79	C
23. Greenfield & Crown Valley	Laguna Niguel	.79	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.73	C	.97	E
25. Forbes & Crown Valley	Laguna Niguel	.88	D	1.02	F
26. Puerta Real & Crown Valley	Mission Viejo	.81	D	.97	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	1.02	F
31. Antonio & Crown Valley	County of Orange	.81	D	1.02	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.05	F	.82	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.50	A	.52	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.41	A	.57	A
36. Marguerite & Avery	Mission Viejo	.73	C	.86	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.85	D	.83	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.88	D	.90	D
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.57	A	.55	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.49	A	.38	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.73	C	.65	B
43. Del Obispo & Ortega	San Juan Capistrano	.65	B	.72	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.72	C	.93	E
45. La Novia & Ortega	San Juan Capistrano	.74	C	.87	D

Table F-13 (cont)
2025 ICU SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.59	F	1.33	F
47. Alipaz & Del Obispo	San Juan Capistrano	.70	B	.69	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.98	E	1.06	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.60	A	.71	C
50. Valle & San Juan Creek	San Juan Capistrano	.92	E	.84	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.03	F	.92	E
53. Del Obispo & Del Avion	San Juan Capistrano	.68	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.41	A	.35	A
55. Del Obispo & Stonehill	Dana Point	.92	E	.95	E
58. Del Rio & Los Mares	San Clemente	.15	A	.13	A
60. La Pata & Vista Hermosa	San Clemente	.71	C	.64	B
61. Talega & Vista Hermosa	San Clemente	.59	A	.70	B
62. Vera Cruz & Los Mares	San Clemente	.38	A	.33	A
63. Vera Cruz & Vista Hermosa	San Clemente	.84	D	.87	D
64. La Pata & Pico	San Clemente	.61	B	.77	C
65. Vista Hermosa & Pico	San Clemente	.65	B	.84	D
66. PCH & Camino Capistrano	San Clemente	.59	A	.90	D
67. El Camino Real & Pico	San Clemente	.68	B	.95	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
69. Del Cerro & Pico	San Clemente	.67	B	.79	C
74. Antonio & North River	County of Orange	.84	D	.83	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.64	B	.84	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.87	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.80	C
105. I-5 NB Ramps & Oso	Mission Viejo	.80	C	.89	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.95	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.76	C	.89	D
108. I-5 SB Ramps & Avery	Mission Viejo	.71	C	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.88	D	1.06	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.59	A	.68	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.51	A	.54	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.93	E	.99	E
113. I-5 NB Ramps & Ortega ¹ (a)	San Juan Capistrano	1.16	F	1.08	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.79	C	.84	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.84	D	.81	D
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.10	F	1.32	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.35	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.29	A	.33	A
119. I-5 SB Ramps & Estrella	San Clemente	.68	B	.87	D
120. I-5 NB Ramps & Estrella	San Clemente	.35	A	.56	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.46	A	.54	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.46	A	.47	A

Table F-13 (cont)
 2025 ICU SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
123. I-5 SB Ramps & Pico	San Clemente	.68	B	1.07	F
124. I-5 NB Ramps & Pico (b)	San Clemente	<i>1.13</i>	<i>F</i>	<i>1.04</i>	<i>F</i>
<i>With Mitigation</i>		<i>1.13</i>	<i>F</i>	<i>1.04</i>	<i>F</i>
125. I-5 SB Ramp & El Camino Real	San Clemente	.41	A	.60	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.41	A	.45	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.53	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.48	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.90	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.48	A	.71	C
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.35	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.56	A	.53	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.85	D	.55	A
160. SR 241 SB Ramps & C St	County of Orange	.50	A	.56	A
161. SR 241 NB Ramps & C St	County of Orange	.56	A	.35	A
162. SR 241 SB Ramps & North River	County of Orange	.43	A	.54	A
163. SR 241 NB Ramps & North River	County of Orange	.73	C	.68	B
171. SR 241 SB Ramps & Hermosa	San Clemente	.52	A	.42	A
172. SR 241 NB Ramps & Hermosa	San Clemente	.47	A	.60	A
173. SR 241 Ramps & Del Cerro	San Clemente	.21	A	.23	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-14
2025 ICU SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.92	E	.95	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.78	C
3. Trabuco & Alicia	Mission Viejo	.67	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.57	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.77	C	.69	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.83	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.71	C
8. Marguerite & Jeronimo	Mission Viejo	.82	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.56	A	.45	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.87	D
11. Olympiad & La Paz	Mission Viejo	.53	A	.66	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.09	F	.97	E
13. Empresa & Banderas	Rancho Santa Margarita	.80	C	.73	C
14. Empresa & Antonio	Rancho Santa Margarita	.60	A	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.68	B
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.67	B
17. Cabot & Oso	Laguna Hills	.68	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.79	C	.77	C
19. Felipe & Oso	Mission Viejo	.85	D	1.07	F
20. Antonio & Oso	County of Orange	.98	E	.99	E
21. Marguerite & Felipe	Mission Viejo	.68	B	.85	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.64	B	.73	C
23. Greenfield & Crown Valley	Laguna Niguel	.76	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.90	D
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.70	B	.86	D
28. Los Altos & Crown Valley	Mission Viejo	.70	B	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.69	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	.99	E
31. Antonio & Crown Valley	County of Orange	.82	D	.98	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.61	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.45	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.41	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.61	B	.72	C
36. Marguerite & Avery	Mission Viejo	.71	C	.83	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.69	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.87	D	.65	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.64	B	.60	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.66	B	.52	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.55	A	.57	A
43. Del Obispo & Ortega	San Juan Capistrano	.59	A	.62	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.80	C	.97	E

Table F-14 (cont)
2025 ICU SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.78	C	.75	C
46. Antonio/La Pata & Ortega	County of Orange	1.18	F	.99	E
47. Alipaz & Del Obispo	San Juan Capistrano	.66	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.82	D	1.01	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.64	B	.84	D
50. Valle & San Juan Creek	San Juan Capistrano	.62	B	.77	C
51. La Novia & San Juan Creek	San Juan Capistrano	.81	D	.74	C
52. La Pata & San Juan Creek	County of Orange	.73	C	.79	C
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.29	A	.29	A
57. La Pata & Las Ramblas	County of Orange	.44	A	.44	A
58. Del Rio & Los Mares	San Clemente	.31	A	.24	A
59. La Pata & Del Rio	San Clemente	.44	A	.61	B
60. La Pata & Vista Hermosa	San Clemente	.74	C	.63	B
61. Talega & Vista Hermosa	San Clemente	.52	A	.54	A
62. Vera Cruz & Los Mares	San Clemente	.33	A	.19	A
63. Vera Cruz & Vista Hermosa	San Clemente	.59	A	.61	B
64. La Pata & Pico	San Clemente	.64	B	.84	D
65. Vista Hermosa & Pico	San Clemente	.68	B	.81	D
66. PCH & Camino Capistrano	San Clemente	.42	A	.53	A
67. El Camino Real & Pico	San Clemente	.50	A	.60	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
69. Del Cerro & Pico	San Clemente	.60	A	.69	B
74. Antonio & North River	County of Orange	.89	D	.88	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.57	A	.73	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.89	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.66	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.78	C	.86	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.93	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.85	D
108. I-5 SB Ramps & Avery	Mission Viejo	.58	A	.73	C
109. I-5 NB Ramps & Avery	Mission Viejo	.63	B	.70	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.64	B	.72	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.55	A	.62	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.80	C	.87	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.59	A	.63	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.73	C	.86	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.76	C	.75	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.69	B	.82	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.37	A

Table F-14 (cont)
 2025 ICU SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.26	A	.35	A
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.80	C
120. I-5 NB Ramps & Estrella	San Clemente	.34	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.41	A	.45	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.44	A	.40	A
123. I-5 SB Ramps & Pico	San Clemente	.62	B	1.01	F
124. I-5 NB Ramps & Pico (a)	San Clemente	1.09	F	1.04	F
With Mitigation		1.09	F	1.04	F
125. I-5 SB Ramp & El Camino Real	San Clemente	.42	A	.55	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.46	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.52	A	.51	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.57	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.68	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.46	A	.70	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.15	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.55	A	.49	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.85	D	.53	A
160. SR 241 SB Ramps & C St	County of Orange	.50	A	.54	A
161. SR 241 NB Ramps & C St	County of Orange	.56	A	.35	A
162. SR 241 SB Ramps & North River	County of Orange	.42	A	.54	A
163. SR 241 NB Ramps & North River	County of Orange	.70	B	.65	B
171. SR 241 SB Ramps & Hermosa	San Clemente	.43	A	.38	A
172. SR 241 NB Ramps & Hermosa	San Clemente	.40	A	.54	A
173. SR 241 Ramps & Del Cerro	San Clemente	.19	A	.22	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-15
 2025 ICU SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.95	E	.93	E
2. Jeronimo & Alicia	Mission Viejo	.73	C	.82	D
3. Trabuco & Alicia	Mission Viejo	.72	C	.74	C
4. Marguerite & Alicia	Mission Viejo	.59	A	.70	B
5. Olympiad & Alicia	Mission Viejo	.82	D	.75	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.66	B	.87	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.72	C
8. Marguerite & Jeronimo	Mission Viejo	.88	D	.72	C
9. Olympiad & Jeronimo	Mission Viejo	.62	B	.49	A
10. Marguerite & La Paz	Mission Viejo	.63	B	.88	D
11. Olympiad & La Paz	Mission Viejo	.55	A	.67	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.12	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.94	E	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.48	A
15. Banderas & Antonio	Rancho Santa Margarita	.73	C	.74	C
16. Cabot & Paseo de Valencia	Laguna Hills	.53	A	.69	B
17. Cabot & Oso	Laguna Hills	.72	C	1.07	F
18. Marguerite & Oso	Mission Viejo	.83	D	.80	C
19. Felipe & Oso	Mission Viejo	.91	E	1.22	F
20. Antonio & Oso	County of Orange	1.14	F	1.04	F
21. Marguerite & Felipe	Mission Viejo	.71	C	1.00	E
22. Moulton & Crown Valley ¹	Laguna Niguel	.66	B	.74	C
23. Greenfield & Crown Valley	Laguna Niguel	.78	C	.87	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.92	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.83	D	.98	E
27. El Regateo & Crown Valley	Mission Viejo	.73	C	.92	E
28. Los Altos & Crown Valley	Mission Viejo	.74	C	.96	E
29. Bellogente & Crown Valley	Mission Viejo	.74	C	.71	C
30. Marguerite & Crown Valley	Mission Viejo	1.16	F	1.14	F
31. Antonio & Crown Valley	County of Orange	1.10	F	1.02	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.80	C	.62	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.47	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.42	A	.50	A
35. Camino Capistrano & Avery	Laguna Niguel	.61	B	.77	C
36. Marguerite & Avery	Mission Viejo	.75	C	.88	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.79	C	.68	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.37	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.85	D	.64	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.62	B	.59	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.66	B	.53	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.54	A	.55	A
43. Del Obispo & Ortega	San Juan Capistrano	.58	A	.64	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.78	C	.97	E

Table F-15 (cont)
 2025 ICU SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.78	C	.80	C
46. Antonio/La Pata & Ortega	County of Orange	.90	D	1.20	F
47. Alipaz & Del Obispo	San Juan Capistrano	.64	B	.78	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.84	D	1.02	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.65	B	.84	D
50. Valle & San Juan Creek	San Juan Capistrano	.69	B	.78	C
51. La Novia & San Juan Creek	San Juan Capistrano	.87	D	.75	C
52. La Pata & San Juan Creek	County of Orange	.78	C	.88	D
53. Del Obispo & Del Avion	San Juan Capistrano	.65	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.63	B	.75	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.33	A	.28	A
57. La Pata & Las Ramblas	County of Orange	.53	A	.45	A
58. Del Rio & Los Mares	San Clemente	.34	A	.25	A
59. La Pata & Del Rio	San Clemente	.53	A	.62	B
60. La Pata & Vista Hermosa	San Clemente	.77	C	.68	B
61. Talega & Vista Hermosa	San Clemente	.52	A	.54	A
62. Vera Cruz & Los Mares	San Clemente	.35	A	.20	A
63. Vera Cruz & Vista Hermosa	San Clemente	.60	A	.60	A
64. La Pata & Pico	San Clemente	.65	B	.85	D
65. Vista Hermosa & Pico	San Clemente	.66	B	.87	D
66. PCH & Camino Capistrano	San Clemente	.42	A	.52	A
67. El Camino Real & Pico	San Clemente	.48	A	.58	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.29	A
69. Del Cerro & Pico	San Clemente	.59	A	.75	C
100. I-5 SB Ramps & Alicia	Laguna Hills	.70	B	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.57	A	.74	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.86	D	.83	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.78	C
105. I-5 NB Ramps & Oso	Mission Viejo	.84	D	.88	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.75	C	1.04	F
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.93	E
108. I-5 SB Ramps & Avery	Mission Viejo	.58	A	.73	C
109. I-5 NB Ramps & Avery	Mission Viejo	.66	B	.69	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.63	B	.72	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.56	A	.60	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.77	C	.89	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.59	A	.64	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.74	C	.89	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.70	B	.71	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.69	B	.84	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.40	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.28	A	.39	A

Table F-15 (cont)
 2025 ICU SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.81	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.51	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.42	A	.44	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.43	A	.39	A
123. I-5 SB Ramps & Pico	San Clemente	.63	B	1.08	F
124. I-5 NB Ramps & Pico (a)	San Clemente	<i>1.11</i>	<i>F</i>	<i>1.05</i>	<i>F</i>
<i>With Mitigation</i>		<i>1.11</i>	<i>F</i>	<i>1.05</i>	<i>F</i>
125. I-5 SB Ramp & El Camino Real	San Clemente	.45	A	.60	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.41	A	.44	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.24	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.52	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.58	A	.40	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.77	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.66	B	.82	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.44	A	.68	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.12	F	.51	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.39	A	.37	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.70	B	.37	A
158. SR 241 SB Ramps & Crown Valley	County of Orange	.23	A	.40	A
159. SR 241 NB Ramps & Crown Valley	County of Orange	.52	A	.25	A
164. SR 241 SB Ramps & Ortega Access	County of Orange	.16	A	.67	B
165. SR 241 NB Ramps & Ortega Access	County of Orange	.63	B	.67	B
166. SR 241 Access Rd & Ortega	County of Orange	.62	B	.66	B
171. SR 241 SB Ramps & Hermosa	San Clemente	.51	A	.39	A
172. SR 241 NB Ramps & Hermosa	San Clemente	.46	A	.56	A
173. SR 241 Ramps & Del Cerro	San Clemente	.19	A	.21	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-16
2025 ICU SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.93	E	.95	E
2. Jeronimo & Alicia	Mission Viejo	.87	D	.85	D
3. Trabuco & Alicia	Mission Viejo	.82	D	.95	E
4. Marguerite & Alicia	Mission Viejo	.63	B	.65	B
5. Olympiad & Alicia	Mission Viejo	.62	B	.60	A
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.74	C	.81	D
8. Marguerite & Jeronimo	Mission Viejo	.84	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.48	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.86	D
11. Olympiad & La Paz	Mission Viejo	.55	A	.61	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.06	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.83	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.48	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.69	B
16. Cabot & Paseo de Valencia	Laguna Hills	.50	A	.66	B
17. Cabot & Oso	Laguna Hills	.68	B	1.02	F
18. Marguerite & Oso	Mission Viejo	.80	C	.79	C
19. Felipe & Oso	Mission Viejo	.83	D	1.04	F
20. Antonio & Oso	County of Orange	1.14	F	1.15	F
21. Marguerite & Felipe	Mission Viejo	.67	B	.84	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.71	C	.80	C
23. Greenfield & Crown Valley	Laguna Niguel	.80	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.73	C	.98	E
25. Forbes & Crown Valley	Laguna Niguel	.87	D	1.02	F
26. Puerta Real & Crown Valley	Mission Viejo	.81	D	.95	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	1.02	F
31. Antonio & Crown Valley	County of Orange	.81	D	1.03	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.05	F	.82	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.51	A	.51	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.41	A	.57	A
36. Marguerite & Avery	Mission Viejo	.73	C	.87	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.86	D	.83	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.91	E	.91	E
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.57	A	.55	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.50	A	.38	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.76	C	.66	B
43. Del Obispo & Ortega	San Juan Capistrano	.66	B	.72	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.72	C	.93	E
45. La Novia & Ortega	San Juan Capistrano	.76	C	.89	D

Table F-16 (cont)
2025 ICU SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.62	F	1.38	F
47. Alipaz & Del Obispo	San Juan Capistrano	.70	B	.68	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	1.01	F	1.07	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.63	B	.73	C
50. Valle & San Juan Creek	San Juan Capistrano	.92	E	.85	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.04	F	.95	E
53. Del Obispo & Del Avion	San Juan Capistrano	.68	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.41	A	.37	A
55. Del Obispo & Stonehill	Dana Point	.93	E	.94	E
58. Del Rio & Los Mares	San Clemente	.15	A	.13	A
60. La Pata & Vista Hermosa	San Clemente	.71	C	.65	B
61. Talega & Vista Hermosa	San Clemente	.57	A	.59	A
62. Vera Cruz & Los Mares	San Clemente	.39	A	.36	A
63. Vera Cruz & Vista Hermosa	San Clemente	.88	D	.95	E
64. La Pata & Pico	San Clemente	.67	B	.86	D
65. Vista Hermosa & Pico	San Clemente	.61	B	.68	B
66. PCH & Camino Capistrano	San Clemente	.58	A	.89	D
67. El Camino Real & Pico	San Clemente	.72	C	.94	E
68. El Camino Real & Cristianitos	San Clemente	.70	B	.87	D
74. Antonio & North River	County of Orange	.82	D	.83	D
81. SR 241 & Cristianitos	County of Orange	.65	B	.90	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.65	B	.85	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.88	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.80	C
105. I-5 NB Ramps & Oso	Mission Viejo	.80	C	.89	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.95	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.75	C	.90	D
108. I-5 SB Ramps & Avery	Mission Viejo	.71	C	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.90	D	1.06	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.60	A	.68	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.50	A	.55	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.95	E	1.00	E
113. I-5 NB Ramps & Ortega ¹ (a)	San Juan Capistrano	1.15	F	1.07	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.81	D	.85	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.87	D	.83	D
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.13	F	1.34	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.34	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.27	A	.32	A
119. I-5 SB Ramps & Estrella	San Clemente	.69	B	.89	D
120. I-5 NB Ramps & Estrella	San Clemente	.35	A	.57	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.47	A	.53	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.51	A	.53	A

Table F-16 (cont)
 2025 ICU SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
123. I-5 SB Ramps & Pico	San Clemente	.87	D	1.03	F
124. I-5 NB Ramps & Pico	San Clemente	.89	D	.74	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.43	A	.58	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.35	A	.42	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.20	A	.17	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.76	C	.79	C
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.54	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.60	A	.47	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.90	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.47	A	.71	C
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.34	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.57	A	.55	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.86	D	.55	A
160. SR 241 SB Ramps & C St	County of Orange	.50	A	.54	A
161. SR 241 NB Ramps & C St	County of Orange	.58	A	.35	A
162. SR 241 SB Ramps & North River	County of Orange	.44	A	.54	A
163. SR 241 NB Ramps & North River	County of Orange	.72	C	.67	B
169. SR 241 SB Ramps & Pico	County of Orange	.66	B	.80	C
170. SR 241 NB Ramps & Pico	County of Orange	.65	B	.71	C

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Table F-17 2025 ICU SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.92	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.78	C
3. Trabuco & Alicia	Mission Viejo	.68	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.57	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.78	C	.70	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.65	B	.84	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.71	C
8. Marguerite & Jeronimo	Mission Viejo	.82	D	.67	B
9. Olympiad & Jeronimo	Mission Viejo	.56	A	.46	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.86	D
11. Olympiad & La Paz	Mission Viejo	.53	A	.67	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.09	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.79	C	.73	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.69	B
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.67	B
17. Cabot & Oso	Laguna Hills	.69	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.79	C	.77	C
19. Felipe & Oso	Mission Viejo	.85	D	1.05	F
20. Antonio & Oso	County of Orange	.98	E	.99	E
21. Marguerite & Felipe	Mission Viejo	.67	B	.86	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.65	B	.73	C
23. Greenfield & Crown Valley	Laguna Niguel	.76	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.91	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.97	E
27. El Regateo & Crown Valley	Mission Viejo	.69	B	.86	D
28. Los Altos & Crown Valley	Mission Viejo	.70	B	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	1.00	E
31. Antonio & Crown Valley	County of Orange	.83	D	1.00	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.60	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.45	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.41	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.61	B	.72	C
36. Marguerite & Avery	Mission Viejo	.72	C	.83	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.70	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.88	D	.64	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.64	B	.60	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.66	B	.52	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.56	A	.58	A
43. Del Obispo & Ortega	San Juan Capistrano	.58	A	.63	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.80	C	.98	E

Table F-17 (cont)
2025 ICU SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.79	C	.76	C
46. Antonio/La Pata & Ortega	County of Orange	1.18	F	1.01	F
47. Alipaz & Del Obispo	San Juan Capistrano	.66	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.82	D	1.01	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.65	B	.84	D
50. Valle & San Juan Creek	San Juan Capistrano	.62	B	.77	C
51. La Novia & San Juan Creek	San Juan Capistrano	.81	D	.74	C
52. La Pata & San Juan Creek	County of Orange	.74	C	.77	C
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.30	A	.30	A
57. La Pata & Las Ramblas	County of Orange	.48	A	.48	A
58. Del Rio & Los Mares	San Clemente	.31	A	.28	A
59. La Pata & Del Rio	San Clemente	.49	A	.63	B
60. La Pata & Vista Hermosa	San Clemente	.74	C	.65	B
61. Talega & Vista Hermosa	San Clemente	.50	A	.45	A
62. Vera Cruz & Los Mares	San Clemente	.37	A	.21	A
63. Vera Cruz & Vista Hermosa	San Clemente	.65	B	.65	B
64. La Pata & Pico	San Clemente	.67	B	.85	D
65. Vista Hermosa & Pico	San Clemente	.55	A	.61	B
66. PCH & Camino Capistrano	San Clemente	.40	A	.52	A
67. El Camino Real & Pico	San Clemente	.48	A	.59	A
68. El Camino Real & Cristianitos	San Clemente	.61	B	.80	C
74. Antonio & North River	County of Orange	.90	D	.89	D
81. SR 241 & Cristianitos	County of Orange	.57	A	.84	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.57	A	.73	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.86	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.67	B	.78	C
105. I-5 NB Ramps & Oso	Mission Viejo	.77	C	.86	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.70	B	.94	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.86	D
108. I-5 SB Ramps & Avery	Mission Viejo	.58	A	.72	C
109. I-5 NB Ramps & Avery	Mission Viejo	.63	B	.71	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.65	B	.71	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.55	A	.62	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.80	C	.88	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.59	A	.64	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.73	C	.87	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.77	C	.74	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.69	B	.83	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.37	A

Table F-17 (cont)
 2025 ICU SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.27	A	.36	A
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.81	D
120. I-5 NB Ramps & Estrella	San Clemente	.35	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.41	A	.44	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.49	A	.47	A
123. I-5 SB Ramps & Pico	San Clemente	.78	C	.89	D
124. I-5 NB Ramps & Pico	San Clemente	.87	D	.68	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.42	A	.56	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.43	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.18	A	.16	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.66	B	.69	B
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.52	A	.51	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.57	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.68	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.46	A	.70	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.17	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.56	A	.50	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.88	D	.55	A
160. SR 241 SB Ramps & C St	County of Orange	.51	A	.55	A
161. SR 241 NB Ramps & C St	County of Orange	.58	A	.36	A
162. SR 241 SB Ramps & North River	County of Orange	.39	A	.51	A
163. SR 241 NB Ramps & North River	County of Orange	.67	B	.62	B
169. SR 241 SB Ramps & Pico	County of Orange	.49	A	.66	B
170. SR 241 NB Ramps & Pico	County of Orange	.55	A	.64	B

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-18 2025 ICU SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.93	E	.97	E
2. Jeronimo & Alicia	Mission Viejo	.87	D	.86	D
3. Trabuco & Alicia	Mission Viejo	.85	D	.95	E
4. Marguerite & Alicia	Mission Viejo	.64	B	.67	B
5. Olympiad & Alicia	Mission Viejo	.63	B	.61	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.84	D
7. Marguerite & Trabuco	Mission Viejo	.77	C	.83	D
8. Marguerite & Jeronimo	Mission Viejo	.85	D	.70	B
9. Olympiad & Jeronimo	Mission Viejo	.50	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.88	D
11. Olympiad & La Paz	Mission Viejo	.56	A	.60	A
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.08	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.82	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.63	B	.48	A
15. Banderas & Antonio	Rancho Santa Margarita	.73	C	.72	C
16. Cabot & Paseo de Valencia	Laguna Hills	.52	A	.69	B
17. Cabot & Oso	Laguna Hills	.70	B	1.02	F
18. Marguerite & Oso	Mission Viejo	.81	D	.80	C
19. Felipe & Oso	Mission Viejo	.84	D	1.04	F
20. Antonio & Oso (a)	County of Orange	1.12	F	1.20	F
With Mitigation		.87	D	.89	D
21. Marguerite & Felipe	Mission Viejo	.69	B	.87	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.73	C	.82	D
23. Greenfield & Crown Valley	Laguna Niguel	.81	D	.85	D
24. Cabot & Crown Valley	Laguna Niguel	.75	C	.99	E
25. Forbes & Crown Valley	Laguna Niguel	.88	D	1.05	F
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.97	E
27. El Regateo & Crown Valley	Mission Viejo	.71	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	1.05	F
31. Antonio & Crown Valley	County of Orange	.85	D	1.02	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.10	F	.86	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.49	A	.53	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.48	A	.64	B
35. Camino Capistrano & Avery	Laguna Niguel	.42	A	.56	A
36. Marguerite & Avery	Mission Viejo	.79	C	.91	E
37. Golden Lantern & Marina Hills	Laguna Niguel	.89	D	.88	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.93	E	.92	E
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.58	A	.60	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.51	A	.39	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.81	D	.83	D
43. Del Obispo & Ortega	San Juan Capistrano	.69	B	.72	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.80	C	.94	E

Table F-18 (cont) 2025 ICU SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega (a)	San Juan Capistrano	.77	C	.98	E
With Mitigation		.77	C	.89	D
46. Antonio/La Pata & Ortega (a)	County of Orange	1.68	F	1.45	F
With Mitigation		.54	A	.73	C
47. Alipaz & Del Obispo	San Juan Capistrano	.70	B	.67	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	1.10	F	1.16	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.67	B	.79	C
50. Valle & San Juan Creek	San Juan Capistrano	.93	E	.85	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.16	F	1.06	F
53. Del Obispo & Del Avion	San Juan Capistrano	.70	B	.63	B
54. Alipaz & Del Avion	San Juan Capistrano	.41	A	.37	A
55. Del Obispo & Stonehill	Dana Point	.93	E	.96	E
58. Del Rio & Los Mares	San Clemente	.15	A	.14	A
60. La Pata & Vista Hermosa	San Clemente	.92	E	.78	C
61. Talega & Vista Hermosa	San Clemente	.60	A	.64	B
62. Vera Cruz & Los Mares	San Clemente	.62	B	.47	A
63. Vera Cruz & Vista Hermosa	San Clemente	1.03	F	1.19	F
64. La Pata & Pico	San Clemente	.82	D	.79	C
65. Vista Hermosa & Pico	San Clemente	.62	B	.73	C
66. PCH & Camino Capistrano	San Clemente	.74	C	.99	E
67. El Camino Real & Pico	San Clemente	.76	C	.95	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
74. Antonio & North River	County of Orange	.80	C	.80	C
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.46	A	.73	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.67	B	.85	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.89	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.68	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.79	C	.90	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.72	C	.94	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.75	C	.91	E
108. I-5 SB Ramps & Avery	Mission Viejo	.74	C	.93	E
109. I-5 NB Ramps & Avery	Mission Viejo	.93	E	1.05	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.61	B	.74	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.48	A	.59	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	1.00	E	1.03	F
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	1.13	F	1.01	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.85	D	.89	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.94	E	.97	E
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.19	F	1.34	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.36	A	.32	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.30	A	.33	A
119. I-5 SB Ramps & Estrella	San Clemente	.80	C	.95	E
120. I-5 NB Ramps & Estrella	San Clemente	.42	A	.60	A

Table F-18 (cont)
 2025 ICU SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.48	A	.61	B
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.58	A	.57	A
123. I-5 SB Ramps & Pico	San Clemente	.94	E	1.21	F
124. I-5 NB Ramps & Pico	San Clemente	.94	E	.84	D
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.64	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.39	A	.40	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.54	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.46	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.90	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.45	A	.71	C
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.38	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.58	A	.54	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.78	C	.54	A
160. SR 241 SB Ramps & C St	County of Orange	.64	B	.68	B
161. SR 241 NB Ramps & C St	County of Orange	.69	B	.42	A
162. SR 241 SB Ramps & North River	County of Orange	.29	A	.32	A
163. SR 241 NB Ramps & North River	County of Orange	.29	A	.45	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-19
2025 ICU SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.95	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.79	C
3. Trabuco & Alicia	Mission Viejo	.69	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.57	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.78	C	.71	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.65	B	.83	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.72	C
8. Marguerite & Jeronimo	Mission Viejo	.82	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.58	A	.47	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.86	D
11. Olympiad & La Paz	Mission Viejo	.54	A	.65	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.10	F	.98	E
13. Empresa & Banderas	Rancho Santa Margarita	.82	D	.76	C
14. Empresa & Antonio	Rancho Santa Margarita	.62	B	.49	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.71	C
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.69	B
17. Cabot & Oso	Laguna Hills	.70	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.79	C	.79	C
19. Felipe & Oso	Mission Viejo	.86	D	1.04	F
20. Antonio & Oso	County of Orange	1.00	E	1.05	F
21. Marguerite & Felipe	Mission Viejo	.69	B	.88	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.64	B	.75	C
23. Greenfield & Crown Valley	Laguna Niguel	.75	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.70	B	.92	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.97	E
27. El Regateo & Crown Valley	Mission Viejo	.70	B	.86	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.14	F	1.01	F
31. Antonio & Crown Valley	County of Orange	.85	D	.99	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.62	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.47	A	.45	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.40	A	.51	A
35. Camino Capistrano & Avery	Laguna Niguel	.58	A	.70	B
36. Marguerite & Avery	Mission Viejo	.73	C	.82	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.82	D	.73	C
38. Camino Capistrano & Los Padres	San Juan Capistrano	.36	A	.62	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.91	E	.71	C
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.63	B	.64	B
41. Camino Capistrano & Oso Road	San Juan Capistrano	.68	B	.58	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.63	B	.61	B
43. Del Obispo & Ortega	San Juan Capistrano	.60	A	.67	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.79	C	.96	E

Table F-19 (cont)

2025 ICU SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.77	C	.80	C
46. Antonio/La Pata & Ortega	County of Orange	1.20	F	1.02	F
47. Alipaz & Del Obispo	San Juan Capistrano	.65	B	.80	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.89	D	1.05	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.68	B	.84	D
50. Valle & San Juan Creek	San Juan Capistrano	.63	B	.81	D
51. La Novia & San Juan Creek	San Juan Capistrano	.85	D	.70	B
52. La Pata & San Juan Creek (a)	County of Orange	.72	C	.94	E
With Mitigation		.70	B	.76	C
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.37	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.65	B	.76	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.29	A	.48	A
57. La Pata & Las Ramblas	County of Orange	.69	B	.56	A
58. Del Rio & Los Mares	San Clemente	.46	A	.53	A
59. La Pata & Del Rio	San Clemente	.85	D	.98	E
60. La Pata & Vista Hermosa	San Clemente	1.03	F	.88	D
61. Talega & Vista Hermosa	San Clemente	.53	A	.50	A
62. Vera Cruz & Los Mares	San Clemente	.45	A	.26	A
63. Vera Cruz & Vista Hermosa	San Clemente	.69	B	.71	C
64. La Pata & Pico	San Clemente	.92	E	1.03	F
65. Vista Hermosa & Pico	San Clemente	.52	A	.72	C
66. PCH & Camino Capistrano	San Clemente	.40	A	.53	A
67. El Camino Real & Pico	San Clemente	.53	A	.58	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
74. Antonio & North River	County of Orange	.87	D	.95	E
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.85	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.59	A	.71	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.88	D	.83	D
104. I-5 SB Ramps & Oso	Mission Viejo	.65	B	.78	C
105. I-5 NB Ramps & Oso	Mission Viejo	.76	C	.87	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.95	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.85	D
108. I-5 SB Ramps & Avery	Mission Viejo	.58	A	.69	B
109. I-5 NB Ramps & Avery	Mission Viejo	.62	B	.72	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.66	B	.75	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.55	A	.64	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.82	D	.88	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.62	B	.65	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.76	C	.87	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.85	D	.85	D
116. Camino Capistrano & Stonehill	San Juan Capistrano	.72	C	.84	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.38	A

Table F-19 (cont)
 2025 ICU SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.25	A	.37	A
119. I-5 SB Ramps & Estrella	San Clemente	.69	B	.82	D
120. I-5 NB Ramps & Estrella	San Clemente	.37	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.41	A	.44	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.59	A	.51	A
123. I-5 SB Ramps & Pico (a)	San Clemente	1.03	F	<i>1.12</i>	<i>F</i>
<i>With Mitigation</i>		.81	D	<i>.78</i>	<i>C</i>
124. I-5 NB Ramps & Pico	San Clemente	.91	E	.80	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.46	A	.62	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.41	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.51	A	.52	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.57	A	.38	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.67	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.44	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.19	F	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.59	A	.53	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.77	C	.57	A
160. SR 241 SB Ramps & C St	County of Orange	.64	B	.66	B
161. SR 241 NB Ramps & C St	County of Orange	.69	B	.41	A
162. SR 241 SB Ramps & North River	County of Orange	.21	A	.22	A
163. SR 241 NB Ramps & North River	County of Orange	.21	A	.35	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-20
 2025 ICU SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.95	E
2. Jeronimo & Alicia	Mission Viejo	.87	D	.83	D
3. Trabuco & Alicia	Mission Viejo	.80	C	.95	E
4. Marguerite & Alicia	Mission Viejo	.63	B	.65	B
5. Olympiad & Alicia	Mission Viejo	.62	B	.61	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.84	D
7. Marguerite & Trabuco	Mission Viejo	.75	C	.81	D
8. Marguerite & Jeronimo	Mission Viejo	.84	D	.69	B
9. Olympiad & Jeronimo	Mission Viejo	.49	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.86	D
11. Olympiad & La Paz	Mission Viejo	.56	A	.62	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.06	F	.95	E
13. Empresa & Banderas	Rancho Santa Margarita	.83	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.48	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.69	B
16. Cabot & Paseo de Valencia	Laguna Hills	.50	A	.66	B
17. Cabot & Oso	Laguna Hills	.68	B	1.02	F
18. Marguerite & Oso	Mission Viejo	.80	C	.79	C
19. Felipe & Oso	Mission Viejo	.83	D	1.04	F
20. Antonio & Oso	County of Orange	1.15	F	1.15	F
21. Marguerite & Felipe	Mission Viejo	.67	B	.84	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.71	C	.81	D
23. Greenfield & Crown Valley	Laguna Niguel	.80	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.75	C	.97	E
25. Forbes & Crown Valley	Laguna Niguel	.88	D	1.03	F
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	1.02	F
31. Antonio & Crown Valley	County of Orange	.81	D	1.03	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.06	F	.84	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.51	A	.52	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.41	A	.57	A
36. Marguerite & Avery	Mission Viejo	.74	C	.87	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.86	D	.84	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.93	E	.92	E
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.57	A	.57	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.51	A	.38	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.79	C	.69	B
43. Del Obispo & Ortega	San Juan Capistrano	.66	B	.73	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.74	C	.94	E

Table F-20 (cont)

2025 ICU SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.76	C	.89	D
46. Antonio/La Pata & Ortega	County of Orange	1.63	F	1.39	F
47. Alipaz & Del Obispo	San Juan Capistrano	.71	C	.67	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	1.05	F	1.09	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.63	B	.74	C
50. Valle & San Juan Creek	San Juan Capistrano	.93	E	.85	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.04	F	.96	E
53. Del Obispo & Del Avion	San Juan Capistrano	.68	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.40	A	.37	A
55. Del Obispo & Stonehill	Dana Point	.93	E	.95	E
58. Del Rio & Los Mares	San Clemente	.15	A	.13	A
60. La Pata & Vista Hermosa	San Clemente	.94	E	.78	C
61. Talega & Vista Hermosa	San Clemente	.60	A	.80	C
62. Vera Cruz & Los Mares	San Clemente	.52	A	.44	A
63. Vera Cruz & Vista Hermosa	San Clemente	1.05	F	1.19	F
64. La Pata & Pico (a)	San Clemente	.87	D	.99	E
With Mitigation		.87	D	.84	D
65. Vista Hermosa & Pico (a)	San Clemente	.72	C	1.09	F
With Mitigation		.64	B	.89	D
66. PCH & Camino Capistrano	San Clemente	.59	A	.92	E
67. El Camino Real & Pico	San Clemente	.74	C	.95	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
74. Antonio & North River	County of Orange	.83	D	.82	D
82. SR 241 & Pico	County of Orange	.81	D	.82	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.46	A	.73	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.65	B	.84	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.87	D	.85	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.80	C
105. I-5 NB Ramps & Oso	Mission Viejo	.79	C	.89	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.95	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.90	D
108. I-5 SB Ramps & Avery	Mission Viejo	.72	C	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.91	E	1.05	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.61	B	.71	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.48	A	.55	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.95	E	.98	E
113. I-5 NB Ramps & Ortega ¹ (a)	San Juan Capistrano	1.16	F	1.05	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.82	D	.85	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.88	D	.88	D
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.14	F	1.33	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.31	A	.34	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.26	A	.31	A
119. I-5 SB Ramps & Estrella	San Clemente	.73	C	.89	D

Table F-20 (cont)
 2025 ICU SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
120. I-5 NB Ramps & Estrella	San Clemente	.39	A	.56	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.46	A	.48	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.63	B	.60	A
123. I-5 SB Ramps & Pico (a)	San Clemente	1.02	F	1.62	F
With Mitigation		.61	B	.55	A
124. I-5 NB Ramps & Pico (a)	San Clemente	1.15	F	1.01	F
With Mitigation		.94	E	.86	D
125. I-5 SB Ramp & El Camino Real	San Clemente	.43	A	.62	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.39	A	.43	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.54	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.58	A	.47	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.90	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.47	A	.71	C
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.36	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.58	A	.57	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.90	D	.57	A
160. SR 241 SB Ramps & C St	County of Orange	.53	A	.55	A
161. SR 241 NB Ramps & C St	County of Orange	.61	B	.36	A
162. SR 241 SB Ramps & North River	County of Orange	.43	A	.53	A
163. SR 241 NB Ramps & North River	County of Orange	.72	C	.68	B

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-21
2025 ICU SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.93	E	.95	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.79	C
3. Trabuco & Alicia	Mission Viejo	.68	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.57	A	.64	B
5. Olympiad & Alicia	Mission Viejo	.77	C	.71	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.65	B	.83	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.72	C
8. Marguerite & Jeronimo	Mission Viejo	.83	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.57	A	.46	A
10. Marguerite & La Paz	Mission Viejo	.63	B	.86	D
11. Olympiad & La Paz	Mission Viejo	.52	A	.66	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.09	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.81	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.60	A	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.69	B
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.68	B
17. Cabot & Oso	Laguna Hills	.70	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.79	C	.78	C
19. Felipe & Oso	Mission Viejo	.86	D	1.05	F
20. Antonio & Oso	County of Orange	.97	E	1.00	E
21. Marguerite & Felipe	Mission Viejo	.68	B	.86	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.64	B	.74	C
23. Greenfield & Crown Valley	Laguna Niguel	.76	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.92	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.69	B	.85	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.13	F	.99	E
31. Antonio & Crown Valley	County of Orange	.83	D	.99	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.77	C	.60	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.46	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.40	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.59	A	.72	C
36. Marguerite & Avery	Mission Viejo	.72	C	.82	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.81	D	.71	C
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.89	D	.66	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.63	B	.63	B
41. Camino Capistrano & Oso Road	San Juan Capistrano	.67	B	.56	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.58	A	.58	A
43. Del Obispo & Ortega	San Juan Capistrano	.59	A	.63	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.80	C	.98	E

Table F-21 (cont)

2025 ICU SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.78	C	.77	C
46. Antonio/La Pata & Ortega	County of Orange	1.17	F	.99	E
47. Alipaz & Del Obispo	San Juan Capistrano	.65	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.83	D	1.01	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.66	B	.83	D
50. Valle & San Juan Creek	San Juan Capistrano	.62	B	.76	C
51. La Novia & San Juan Creek	San Juan Capistrano	.81	D	.74	C
52. La Pata & San Juan Creek	County of Orange	.74	C	.86	D
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.75	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.30	A	.31	A
57. La Pata & Las Ramblas	County of Orange	.49	A	.51	A
58. Del Rio & Los Mares	San Clemente	.32	A	.30	A
59. La Pata & Del Rio	San Clemente	.49	A	.69	B
60. La Pata & Vista Hermosa	San Clemente	.84	D	.77	C
61. Talega & Vista Hermosa	San Clemente	.52	A	.63	B
62. Vera Cruz & Los Mares	San Clemente	.37	A	.27	A
63. Vera Cruz & Vista Hermosa	San Clemente	.82	D	.82	D
64. La Pata & Pico	San Clemente	.82	D	.95	E
65. Vista Hermosa & Pico	San Clemente	.63	B	.86	D
66. PCH & Camino Capistrano	San Clemente	.42	A	.54	A
67. El Camino Real & Pico	San Clemente	.50	A	.60	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.29	A
74. Antonio & North River	County of Orange	.89	D	.90	D
82. SR 241 & Pico	County of Orange	.73	C	.76	C
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.59	A	.71	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.87	D	.83	D
104. I-5 SB Ramps & Oso	Mission Viejo	.66	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.76	C	.86	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.94	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.86	D
108. I-5 SB Ramps & Avery	Mission Viejo	.58	A	.71	C
109. I-5 NB Ramps & Avery	Mission Viejo	.62	B	.72	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.65	B	.74	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.56	A	.62	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.81	D	.86	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.59	A	.64	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.72	C	.86	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.77	C	.77	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.70	B	.83	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.37	A

Table F-21 (cont)
2025 ICU SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.25	A	.36	A
119. I-5 SB Ramps & Estrella	San Clemente	.69	B	.81	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.51	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.42	A	.43	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.63	B	.55	A
123. I-5 SB Ramps & Pico (a)	San Clemente	.88	D	1.37	F
With Mitigation		.56	A	.50	A
124. I-5 NB Ramps & Pico (a)	San Clemente	1.04	F	.89	D
With Mitigation		.85	D	.76	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.42	A	.57	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.36	A	.44	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.24	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.52	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.57	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.68	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.46	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.18	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.57	A	.51	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.88	D	.55	A
160. SR 241 SB Ramps & C St	County of Orange	.53	A	.56	A
161. SR 241 NB Ramps & C St	County of Orange	.61	B	.39	A
162. SR 241 SB Ramps & North River	County of Orange	.41	A	.49	A
163. SR 241 NB Ramps & North River	County of Orange	.67	B	.59	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
LOS – level of service
NB – northbound
SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-22
2025 ICU SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.86	D	.84	D
3. Trabuco & Alicia	Mission Viejo	.79	C	.95	E
4. Marguerite & Alicia	Mission Viejo	.63	B	.65	B
5. Olympiad & Alicia	Mission Viejo	.62	B	.61	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.74	C	.81	D
8. Marguerite & Jeronimo	Mission Viejo	.85	D	.70	B
9. Olympiad & Jeronimo	Mission Viejo	.47	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.61	B	.89	D
11. Olympiad & La Paz	Mission Viejo	.57	A	.65	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.08	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.82	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.46	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.70	B
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.63	B
17. Cabot & Oso	Laguna Hills	.69	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.79	C	.80	C
19. Felipe & Oso	Mission Viejo	.84	D	1.09	F
20. Antonio & Oso	County of Orange	1.14	F	1.14	F
21. Marguerite & Felipe	Mission Viejo	.67	B	.82	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.70	B	.80	C
23. Greenfield & Crown Valley	Laguna Niguel	.80	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.73	C	.92	E
25. Forbes & Crown Valley	Laguna Niguel	.87	D	1.02	F
26. Puerta Real & Crown Valley	Mission Viejo	.81	D	.97	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.11	F	1.02	F
31. Antonio & Crown Valley	County of Orange	.82	D	1.03	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.05	F	.82	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.49	A	.51	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.42	A	.57	A
36. Marguerite & Avery	Mission Viejo	.72	C	.86	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.85	D	.82	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.85	D	.86	D
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.56	A	.54	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.47	A	.37	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.70	B	.71	C
43. Del Obispo & Ortega	San Juan Capistrano	.66	B	.72	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.72	C	.93	E
45. La Novia & Ortega	San Juan Capistrano	.75	C	.88	D

Table F-22 (cont)
2025 ICU SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.62	F	1.39	F
47. Alipaz & Del Obispo	San Juan Capistrano	.71	C	.68	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.96	E	1.03	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.59	A	.70	B
50. Valle & San Juan Creek	San Juan Capistrano	.91	E	.84	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.01	F	.89	D
53. Del Obispo & Del Avion	San Juan Capistrano	.68	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.40	A	.35	A
55. Del Obispo & Stonehill	Dana Point	.93	E	.96	E
58. Del Rio & Los Mares	San Clemente	.15	A	.13	A
60. La Pata & Vista Hermosa	San Clemente	.79	C	.85	D
61. Talega & Vista Hermosa	San Clemente	.77	C	.81	D
62. Vera Cruz & Los Mares	San Clemente	.37	A	.31	A
63. Vera Cruz & Vista Hermosa	San Clemente	.86	D	.87	D
64. La Pata & Pico	San Clemente	.64	B	.66	B
65. Vista Hermosa & Pico	San Clemente	.63	B	.81	D
66. PCH & Camino Capistrano	San Clemente	.56	A	.88	D
67. El Camino Real & Pico	San Clemente	.68	B	.94	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
69. Del Cerro & Pico	San Clemente	.67	B	.77	C
74. Antonio & North River	County of Orange	.85	D	.87	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.64	B	.83	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.88	D	.83	D
104. I-5 SB Ramps & Oso	Mission Viejo	.70	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.81	D	.89	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.96	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.75	C	.90	D
108. I-5 SB Ramps & Avery	Mission Viejo	.69	B	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.87	D	1.06	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.58	A	.65	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.48	A	.52	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.92	E	1.00	E
113. I-5 NB Ramps & Ortega ¹ (a)	San Juan Capistrano	1.18	F	1.06	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.80	C	.84	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.79	C	.78	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.09	F	1.33	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.37	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.29	A	.34	A
119. I-5 SB Ramps & Estrella	San Clemente	.69	B	.86	D
120. I-5 NB Ramps & Estrella	San Clemente	.34	A	.55	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.45	A	.55	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.44	A	.47	A

Table F-22 (cont)
 2025 ICU SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
123. I-5 SB Ramps & Pico	San Clemente	.67	B	1.07	F
124. I-5 NB Ramps & Pico (b)	San Clemente	<i>1.14</i>	<i>F</i>	<i>1.04</i>	<i>F</i>
<i>With Mitigation</i>		<i>1.14</i>	<i>F</i>	<i>1.04</i>	<i>F</i>
125. I-5 SB Ramp & El Camino Real	San Clemente	.42	A	.60	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.43	A	.45	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.53	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.48	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.87	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.47	A	.70	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.26	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.50	A	.44	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.76	C	.50	A
160. SR 241 SB Ramps & C St	County of Orange	.20	A	.42	A
161. SR 241 NB Ramps & C St	County of Orange	.19	A	.47	A
167. SR 241 SB Ramps & Ortega	County of Orange	.35	A	.33	A
168. SR 241 NB Ramps & Ortega	County of Orange	.46	A	.43	A
171. SR 241 SB Ramps & Hermosa	San Clemente	.53	A	.65	B
172. SR 241 NB Ramps & Hermosa	San Clemente	.52	A	.59	A
173. SR 241 Ramps & Del Cerro	San Clemente	.21	A	.23	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-23
2025 ICU SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.92	E	.96	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.78	C
3. Trabuco & Alicia	Mission Viejo	.67	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.56	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.79	C	.71	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.84	D
7. Marguerite & Trabuco	Mission Viejo	.66	B	.70	B
8. Marguerite & Jeronimo	Mission Viejo	.85	D	.69	B
9. Olympiad & Jeronimo	Mission Viejo	.51	A	.45	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.91	E
11. Olympiad & La Paz	Mission Viejo	.57	A	.70	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.08	F	.95	E
13. Empresa & Banderas	Rancho Santa Margarita	.80	C	.73	C
14. Empresa & Antonio	Rancho Santa Margarita	.59	A	.45	A
15. Banderas & Antonio	Rancho Santa Margarita	.70	B	.68	B
16. Cabot & Paseo de Valencia	Laguna Hills	.52	A	.66	B
17. Cabot & Oso	Laguna Hills	.69	B	.99	E
18. Marguerite & Oso	Mission Viejo	.78	C	.78	C
19. Felipe & Oso	Mission Viejo	.86	D	1.08	F
20. Antonio & Oso	County of Orange	.99	E	.95	E
21. Marguerite & Felipe	Mission Viejo	.67	B	.82	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.64	B	.72	C
23. Greenfield & Crown Valley	Laguna Niguel	.76	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.68	B	.90	D
25. Forbes & Crown Valley	Laguna Niguel	.85	D	.97	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.70	B	.85	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.13	F	.98	E
31. Antonio & Crown Valley	County of Orange	.80	C	1.01	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.59	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.45	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.40	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.62	B	.73	C
36. Marguerite & Avery	Mission Viejo	.72	C	.80	C
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.71	C
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.65	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.85	D	.64	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.62	B	.59	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.64	B	.50	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.53	A	.54	A
43. Del Obispo & Ortega	San Juan Capistrano	.58	A	.63	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.77	C	.98	E

Table F-23 (cont)
2025 ICU SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.78	C	.76	C
46. Antonio/La Pata & Ortega	County of Orange	1.17	F	1.00	E
47. Alipaz & Del Obispo	San Juan Capistrano	.65	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.83	D	1.00	E
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.64	B	.83	D
50. Valle & San Juan Creek	San Juan Capistrano	.63	B	.76	C
51. La Novia & San Juan Creek	San Juan Capistrano	.79	C	.73	C
52. La Pata & San Juan Creek	County of Orange	.76	C	.79	C
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.29	A	.30	A
57. La Pata & Las Ramblas	County of Orange	.43	A	.44	A
58. Del Rio & Los Mares	San Clemente	.32	A	.25	A
59. La Pata & Del Rio	San Clemente	.45	A	.58	A
60. La Pata & Vista Hermosa	San Clemente	.82	D	.75	C
61. Talega & Vista Hermosa	San Clemente	.69	B	.65	B
62. Vera Cruz & Los Mares	San Clemente	.32	A	.18	A
63. Vera Cruz & Vista Hermosa	San Clemente	.59	A	.56	A
64. La Pata & Pico	San Clemente	.65	B	.77	C
65. Vista Hermosa & Pico	San Clemente	.65	B	.77	C
66. PCH & Camino Capistrano	San Clemente	.40	A	.52	A
67. El Camino Real & Pico	San Clemente	.46	A	.59	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
69. Del Cerro & Pico	San Clemente	.59	A	.66	B
74. Antonio & North River	County of Orange	.90	D	.89	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.71	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.57	A	.73	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.89	D	.86	D
104. I-5 SB Ramps & Oso	Mission Viejo	.67	B	.78	C
105. I-5 NB Ramps & Oso	Mission Viejo	.78	C	.85	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.94	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.85	D
108. I-5 SB Ramps & Avery	Mission Viejo	.59	A	.73	C
109. I-5 NB Ramps & Avery	Mission Viejo	.64	B	.70	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.63	B	.70	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.54	A	.61	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.79	C	.88	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.58	A	.64	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.71	C	.86	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.78	C	.74	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.68	B	.82	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.37	A

Table F-23 (cont)
 2025 ICU SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.26	A	.36	A
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.81	D
120. I-5 NB Ramps & Estrella	San Clemente	.34	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.41	A	.47	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.44	A	.41	A
123. I-5 SB Ramps & Pico	San Clemente	.63	B	1.01	F
124. I-5 NB Ramps & Pico (a)	San Clemente	1.10	F	1.05	F
With Mitigation		1.10	F	1.05	F
125. I-5 SB Ramp & El Camino Real	San Clemente	.43	A	.55	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.41	A	.45	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.51	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.57	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.77	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.67	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.46	A	.70	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.12	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.48	A	.42	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.73	C	.49	A
160. SR 241 SB Ramps & C St	County of Orange	.20	A	.40	A
161. SR 241 NB Ramps & C St	County of Orange	.85	D	.45	A
167. SR 241 SB Ramps & Ortega	County of Orange	.36	A	.43	A
168. SR 241 NB Ramps & Ortega	County of Orange	.44	A	.43	A
171. SR 241 SB Ramps & Hermosa	San Clemente	.48	A	.53	A
172. SR 241 NB Ramps & Hermosa	San Clemente	.42	A	.56	A
173. SR 241 Ramps & Del Cerro	San Clemente	.17	A	.20	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-24
 2025 ICU SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.95	E	.92	E
2. Jeronimo & Alicia	Mission Viejo	.74	C	.82	D
3. Trabuco & Alicia	Mission Viejo	.71	C	.74	C
4. Marguerite & Alicia	Mission Viejo	.58	A	.69	B
5. Olympiad & Alicia	Mission Viejo	.82	D	.74	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.68	B	.87	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.72	C
8. Marguerite & Jeronimo	Mission Viejo	.86	D	.71	C
9. Olympiad & Jeronimo	Mission Viejo	.60	A	.49	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.88	D
11. Olympiad & La Paz	Mission Viejo	.56	A	.68	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.13	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.94	E	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.62	B	.48	A
15. Banderas & Antonio	Rancho Santa Margarita	.73	C	.73	C
16. Cabot & Paseo de Valencia	Laguna Hills	.53	A	.69	B
17. Cabot & Oso	Laguna Hills	.74	C	1.07	F
18. Marguerite & Oso	Mission Viejo	.83	D	.79	C
19. Felipe & Oso	Mission Viejo	.90	D	1.22	F
20. Antonio & Oso	County of Orange	1.18	F	1.02	F
21. Marguerite & Felipe	Mission Viejo	.71	C	.99	E
22. Moulton & Crown Valley ¹	Laguna Niguel	.65	B	.74	C
23. Greenfield & Crown Valley	Laguna Niguel	.78	C	.88	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.93	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.83	D	.98	E
27. El Regateo & Crown Valley	Mission Viejo	.73	C	.92	E
28. Los Altos & Crown Valley	Mission Viejo	.74	C	.96	E
29. Bellogente & Crown Valley	Mission Viejo	.74	C	.71	C
30. Marguerite & Crown Valley	Mission Viejo	1.15	F	1.14	F
31. Antonio & Crown Valley	County of Orange	1.13	F	.99	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.61	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.47	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.41	A	.50	A
35. Camino Capistrano & Avery	Laguna Niguel	.62	B	.77	C
36. Marguerite & Avery	Mission Viejo	.72	C	.87	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.68	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.37	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.84	D	.63	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.61	B	.57	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.65	B	.53	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.51	A	.55	A
43. Del Obispo & Ortega	San Juan Capistrano	.57	A	.65	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.72	C	.95	E

Table F-24 (cont)
 2025 ICU SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.75	C	.77	C
46. Antonio/La Pata & Ortega	County of Orange	.87	D	1.12	F
47. Alipaz & Del Obispo	San Juan Capistrano	.64	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.83	D	1.04	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.65	B	.85	D
50. Valle & San Juan Creek	San Juan Capistrano	.67	B	.79	C
51. La Novia & San Juan Creek	San Juan Capistrano	.85	D	.73	C
52. La Pata & San Juan Creek	County of Orange	.76	C	.88	D
53. Del Obispo & Del Avion	San Juan Capistrano	.65	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.76	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.34	A	.29	A
57. La Pata & Las Ramblas	County of Orange	.48	A	.44	A
58. Del Rio & Los Mares	San Clemente	.35	A	.24	A
59. La Pata & Del Rio	San Clemente	.48	A	.61	B
60. La Pata & Vista Hermosa	San Clemente	.83	D	.82	D
61. Talega & Vista Hermosa	San Clemente	.66	B	.69	B
62. Vera Cruz & Los Mares	San Clemente	.32	A	.18	A
63. Vera Cruz & Vista Hermosa	San Clemente	.60	A	.58	A
64. La Pata & Pico	San Clemente	.64	B	.82	D
65. Vista Hermosa & Pico	San Clemente	.67	B	.86	D
66. PCH & Camino Capistrano	San Clemente	.40	A	.51	A
67. El Camino Real & Pico	San Clemente	.45	A	.57	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.29	A
69. Del Cerro & Pico	San Clemente	.62	B	.70	B
100. I-5 SB Ramps & Alicia	Laguna Hills	.70	B	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.54	A	.75	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.86	D	.82	D
104. I-5 SB Ramps & Oso	Mission Viejo	.70	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.86	D	.89	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.74	C	1.03	F
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.93	E
108. I-5 SB Ramps & Avery	Mission Viejo	.57	A	.74	C
109. I-5 NB Ramps & Avery	Mission Viejo	.66	B	.68	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.63	B	.70	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.54	A	.59	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.78	C	.89	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.58	A	.64	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.72	C	.87	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.71	C	.71	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.67	B	.83	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.33	A	.40	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.29	A	.39	A

Table F-24 (cont)
 2025 ICU SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.82	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.50	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.42	A	.46	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.43	A	.40	A
123. I-5 SB Ramps & Pico	San Clemente	.63	B	1.08	F
124. I-5 NB Ramps & Pico (a)	San Clemente	1.10	F	1.06	F
With Mitigation		1.10	F	1.06	F
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.60	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.42	A	.44	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.24	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.53	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.40	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.10	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.67	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.44	A	.68	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.12	F	.51	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.45	A	.37	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.79	C	.36	A
158. SR 241 SB Ramps & Crown Valley	County of Orange	.34	A	.46	A
159. SR 241 NB Ramps & Crown Valley	County of Orange	.59	A	.24	A
167. SR 241 SB Ramps & Ortega	County of Orange	.75	C	.76	C
168. SR 241 NB Ramps & Ortega	County of Orange	.71	C	.88	D
171. SR 241 SB Ramps & Hermosa	San Clemente	.58	A	.61	B
172. SR 241 NB Ramps & Hermosa	San Clemente	.48	A	.55	A
173. SR 241 Ramps & Del Cerro	San Clemente	.19	A	.20	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-25
 2025 ICU SUMMARY – CC-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.93	E	.91	E
2. Jeronimo & Alicia	Mission Viejo	.68	B	.73	C
3. Trabuco & Alicia	Mission Viejo	.65	B	.69	B
4. Marguerite & Alicia	Mission Viejo	.59	A	.63	B
5. Olympiad & Alicia	Mission Viejo	.67	B	.66	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.47	A	.77	C
7. Marguerite & Trabuco	Mission Viejo	.59	A	.64	B
8. Marguerite & Jeronimo	Mission Viejo	.83	D	.63	B
9. Olympiad & Jeronimo	Mission Viejo	.45	A	.45	A
10. Marguerite & La Paz	Mission Viejo	.58	A	.73	C
11. Olympiad & La Paz	Mission Viejo	.55	A	.57	A
12. Empresa & Santa Margarita	Rancho Santa Margarita	.78	C	.75	C
13. Empresa & Banderas	Rancho Santa Margarita	.89	D	.69	B
14. Empresa & Antonio	Rancho Santa Margarita	.54	A	.49	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.71	C
16. Cabot & Paseo de Valencia	Laguna Hills	.42	A	.58	A
17. Cabot & Oso	Laguna Hills	.70	B	.97	E
18. Marguerite & Oso	Mission Viejo	.78	C	.68	B
19. Felipe & Oso	Mission Viejo	.86	D	1.16	F
20. Antonio & Oso	County of Orange	1.07	F	.95	E
21. Marguerite & Felipe	Mission Viejo	.68	B	.96	E
22. Moulton & Crown Valley ¹	Laguna Niguel	.61	B	.71	C
23. Greenfield & Crown Valley	Laguna Niguel	.77	C	.90	D
24. Cabot & Crown Valley	Laguna Niguel	.66	B	.91	E
25. Forbes & Crown Valley	Laguna Niguel	.82	D	.97	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.98	E
27. El Regateo & Crown Valley	Mission Viejo	.73	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.74	C	.96	E
29. Bellogente & Crown Valley	Mission Viejo	.73	C	.71	C
30. Marguerite & Crown Valley	Mission Viejo	1.11	F	1.10	F
31. Antonio & Crown Valley	County of Orange	1.07	F	.91	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.59	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.43	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.44	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.62	B	.72	C
36. Marguerite & Avery	Mission Viejo	.71	C	.87	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.76	C	.67	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.37	A	.62	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.84	D	.61	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.62	B	.55	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.63	B	.49	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.49	A	.53	A
43. Del Obispo & Ortega	San Juan Capistrano	.59	A	.65	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.70	B	.90	D

Table F-25 (cont)
2025 ICU SUMMARY – CC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.74	C	.75	C
46. Antonio/La Pata & Ortega	County of Orange	.81	D	.98	E
47. Alipaz & Del Obispo	San Juan Capistrano	.64	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.83	D	1.00	E
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.64	B	.87	D
50. Valle & San Juan Creek	San Juan Capistrano	.64	B	.80	C
51. La Novia & San Juan Creek	San Juan Capistrano	.81	D	.69	B
52. La Pata & San Juan Creek	County of Orange	.73	C	.80	C
53. Del Obispo & Del Avion	San Juan Capistrano	.64	B	.58	A
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.32	A	.28	A
57. La Pata & Las Ramblas	County of Orange	.42	A	.42	A
58. Del Rio & Los Mares	San Clemente	.35	A	.23	A
59. La Pata & Del Rio	San Clemente	.38	A	.53	A
60. La Pata & Vista Hermosa	San Clemente	.81	D	.92	E
61. Talega & Vista Hermosa	San Clemente	.69	B	.73	C
62. Vera Cruz & Los Mares	San Clemente	.31	A	.17	A
63. Vera Cruz & Vista Hermosa	San Clemente	.59	A	.56	A
64. La Pata & Pico	San Clemente	.60	A	.74	C
65. Vista Hermosa & Pico	San Clemente	.69	B	.88	D
66. PCH & Camino Capistrano	San Clemente	.40	A	.50	A
67. El Camino Real & Pico	San Clemente	.44	A	.56	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
69. Del Cerro & Pico	San Clemente	.60	A	.69	B
100. I-5 SB Ramps & Alicia	Laguna Hills	.68	B	.83	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.48	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.53	A	.69	B
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.71	C	.81	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.84	D
105. I-5 NB Ramps & Oso	Mission Viejo	.77	C	.89	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.74	C	1.03	F
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.92	E
108. I-5 SB Ramps & Avery	Mission Viejo	.60	A	.73	C
109. I-5 NB Ramps & Avery	Mission Viejo	.70	B	.68	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.63	B	.65	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.57	A	.58	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.78	C	.89	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.58	A	.66	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.72	C	.87	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.70	B	.71	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.68	B	.84	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.40	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.28	A	.38	A

Table F-25 (cont)
 2025 ICU SUMMARY – CC-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.81	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.51	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.40	A	.44	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.42	A	.40	A
123. I-5 SB Ramps & Pico	San Clemente	.63	B	1.07	F
124. I-5 NB Ramps & Pico	San Clemente	1.10	F	1.04	F
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.60	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.44	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.25	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.57	A	.57	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.57	A	.42	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.90	D	1.27	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.72	C	.85	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.57	A	.73	C
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.28	F	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.36	A	.47	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.60	A	.42	A
158. SR 241 SB Ramps & Crown Valley	County of Orange	.57	A	.66	B
159. SR 241 NB Ramps & Crown Valley	County of Orange	.87	D	.40	A
167. SR 241 SB Ramps & Ortega	County of Orange	.77	C	.84	D
168. SR 241 NB Ramps & Ortega	County of Orange	.63	B	.90	D
171. SR 241 SB Ramps & Hermosa	San Clemente	.67	B	.70	B
172. SR 241 NB Ramps & Hermosa	San Clemente	.69	B	.65	B
173. SR 241 Ramps & Del Cerro	San Clemente	.20	A	.20	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-26
2025 ICU SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.92	E	.95	E
2. Jeronimo & Alicia	Mission Viejo	.86	D	.84	D
3. Trabuco & Alicia	Mission Viejo	.82	D	.95	E
4. Marguerite & Alicia	Mission Viejo	.63	B	.65	B
5. Olympiad & Alicia	Mission Viejo	.63	B	.60	A
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.84	D
7. Marguerite & Trabuco	Mission Viejo	.75	C	.81	D
8. Marguerite & Jeronimo	Mission Viejo	.85	D	.70	B
9. Olympiad & Jeronimo	Mission Viejo	.48	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.61	B	.90	D
11. Olympiad & La Paz	Mission Viejo	.56	A	.66	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.07	F	.95	E
13. Empresa & Banderas	Rancho Santa Margarita	.81	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.46	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.70	B
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.66	B
17. Cabot & Oso	Laguna Hills	.70	B	1.02	F
18. Marguerite & Oso	Mission Viejo	.80	C	.81	D
19. Felipe & Oso	Mission Viejo	.83	D	1.10	F
20. Antonio & Oso	County of Orange	1.15	F	1.14	F
21. Marguerite & Felipe	Mission Viejo	.67	B	.83	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.69	B	.81	D
23. Greenfield & Crown Valley	Laguna Niguel	.80	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.73	C	.94	E
25. Forbes & Crown Valley	Laguna Niguel	.88	D	1.03	F
26. Puerta Real & Crown Valley	Mission Viejo	.81	D	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.11	F	1.02	F
31. Antonio & Crown Valley	County of Orange	.82	D	1.03	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.06	F	.82	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.50	A	.51	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.43	A	.57	A
36. Marguerite & Avery	Mission Viejo	.73	C	.87	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.86	D	.84	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.90	D	.92	E
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.57	A	.57	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.50	A	.38	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.76	C	.67	B
43. Del Obispo & Ortega	San Juan Capistrano	.65	B	.72	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.73	C	.94	E
45. La Novia & Ortega	San Juan Capistrano	.76	C	.92	E

Table F-26 (cont) 2025 ICU SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.63	F	1.41	F
47. Alipaz & Del Obispo	San Juan Capistrano	.71	C	.67	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.99	E	1.08	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.62	B	.73	C
50. Valle & San Juan Creek	San Juan Capistrano	.92	E	.85	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.02	F	.92	E
53. Del Obispo & Del Avion	San Juan Capistrano	.68	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.39	A	.37	A
55. Del Obispo & Stonehill	Dana Point	.94	E	.95	E
58. Del Rio & Los Mares	San Clemente	.15	A	.13	A
60. La Pata & Vista Hermosa (b)	San Clemente	1.37	F	1.14	F
With Mitigation		.85	D	.86	D
61. Talega & Vista Hermosa (b)	San Clemente	.97	E	1.03	F
With Mitigation		.78	C	.83	D
62. Vera Cruz & Los Mares	San Clemente	.54	A	.44	A
63. Vera Cruz & Vista Hermosa (b)	San Clemente	1.16	F	1.21	F
With Mitigation		.71	C	.85	D
64. La Pata & Pico (b)	San Clemente	.81	D	1.01	F
With Mitigation		.77	C	.85	D
65. Vista Hermosa & Pico (b)	San Clemente	.89	D	1.08	F
With Mitigation		.69	B	.85	D
66. PCH & Camino Capistrano	San Clemente	.59	A	.90	D
67. El Camino Real & Pico	San Clemente	.74	C	.94	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
74. Antonio & North River	County of Orange	.84	D	.87	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.73	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.66	B	.84	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.86	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.70	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.80	C	.88	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.95	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.91	E
108. I-5 SB Ramps & Avery	Mission Viejo	.71	C	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.89	D	1.05	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.60	A	.69	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.49	A	.55	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.93	E	.96	E
113. I-5 NB Ramps & Ortega ¹ (a)	San Juan Capistrano	1.16	F	1.07	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.81	D	.85	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.86	D	.82	D
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.12	F	1.34	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.34	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.27	A	.31	A

Table F-26 (cont)
 2025 ICU SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
119. I-5 SB Ramps & Estrella	San Clemente	.74	C	.88	D
120. I-5 NB Ramps & Estrella	San Clemente	.39	A	.56	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.40	A	.45	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.68	B	.63	B
123. I-5 SB Ramps & Pico (b)	San Clemente	1.01	F	1.68	F
With Mitigation		.65	B	.57	A
124. I-5 NB Ramps & Pico (b)	San Clemente	1.15	F	1.07	F
With Mitigation		.92	E	.91	E
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.62	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.39	A	.45	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.24	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.54	A	.52	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.60	A	.47	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.90	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.46	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.31	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.49	A	.43	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.75	C	.50	A
160. SR 241 SB Ramps & C St	County of Orange	.19	A	.43	A
161. SR 241 NB Ramps & C St	County of Orange	.19	A	.47	A
167. SR 241 SB Ramps & Ortega	County of Orange	.32	A	.35	A
168. SR 241 NB Ramps & Ortega	County of Orange	.44	A	.43	A
171. SR 241 SB Ramps & Hermosa	San Clemente	.49	A	.46	A
172. SR 241 NB Ramps & Hermosa	San Clemente	.26	A	.52	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

- (a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.
- (b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-27
2025 ICU SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.93	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.78	C
3. Trabuco & Alicia	Mission Viejo	.67	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.57	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.78	C	.70	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.83	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.70	B
8. Marguerite & Jeronimo	Mission Viejo	.87	D	.69	B
9. Olympiad & Jeronimo	Mission Viejo	.52	A	.45	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.90	D
11. Olympiad & La Paz	Mission Viejo	.57	A	.70	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.08	F	.95	E
13. Empresa & Banderas	Rancho Santa Margarita	.80	C	.73	C
14. Empresa & Antonio	Rancho Santa Margarita	.58	A	.46	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.68	B
16. Cabot & Paseo de Valencia	Laguna Hills	.52	A	.67	B
17. Cabot & Oso	Laguna Hills	.70	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.79	C	.78	C
19. Felipe & Oso	Mission Viejo	.85	D	1.09	F
20. Antonio & Oso	County of Orange	.98	E	.97	E
21. Marguerite & Felipe	Mission Viejo	.68	B	.84	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.65	B	.72	C
23. Greenfield & Crown Valley	Laguna Niguel	.77	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.68	B	.91	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.69	B	.86	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.13	F	1.00	E
31. Antonio & Crown Valley	County of Orange	.80	C	1.01	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.61	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.45	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.41	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.60	A	.72	C
36. Marguerite & Avery	Mission Viejo	.71	C	.83	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.70	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.88	D	.66	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.64	B	.62	B
41. Camino Capistrano & Oso Road	San Juan Capistrano	.66	B	.53	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.55	A	.57	A
43. Del Obispo & Ortega	San Juan Capistrano	.58	A	.62	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.79	C	.98	E

Table F-27 (cont)

2025 ICU SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.79	C	.79	C
46. Antonio/La Pata & Ortega	County of Orange	1.16	F	1.01	F
47. Alipaz & Del Obispo	San Juan Capistrano	.65	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.82	D	1.01	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.66	B	.84	D
50. Valle & San Juan Creek	San Juan Capistrano	.63	B	.77	C
51. La Novia & San Juan Creek	San Juan Capistrano	.82	D	.77	C
52. La Pata & San Juan Creek	County of Orange	.78	C	.85	D
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.30	A	.33	A
57. La Pata & Las Ramblas	County of Orange	.51	A	.51	A
58. Del Rio & Los Mares	San Clemente	.32	A	.30	A
59. La Pata & Del Rio	San Clemente	.51	A	.71	C
60. La Pata & Vista Hermosa (a)	San Clemente	1.15	F	1.14	F
With Mitigation		.81	D	.81	D
61. Talega & Vista Hermosa	San Clemente	.80	C	.71	C
62. Vera Cruz & Los Mares	San Clemente	.38	A	.29	A
63. Vera Cruz & Vista Hermosa	San Clemente	.87	D	.85	D
64. La Pata & Pico (a)	San Clemente	.81	D	1.16	F
With Mitigation		.75	C	.90	D
65. Vista Hermosa & Pico	San Clemente	.80	C	.86	D
66. PCH & Camino Capistrano	San Clemente	.41	A	.53	A
67. El Camino Real & Pico	San Clemente	.51	A	.58	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
74. Antonio & North River	County of Orange	.90	D	.92	E
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.71	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.58	A	.73	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.87	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.67	B	.78	C
105. I-5 NB Ramps & Oso	Mission Viejo	.78	C	.85	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.94	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.85	D
108. I-5 SB Ramps & Avery	Mission Viejo	.57	A	.71	C
109. I-5 NB Ramps & Avery	Mission Viejo	.63	B	.72	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.65	B	.73	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.56	A	.63	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.80	C	.87	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.59	A	.64	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.72	C	.87	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.77	C	.76	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.69	B	.83	D

Table F-27 (cont)
 2025 ICU SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.38	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.25	A	.36	A
119. I-5 SB Ramps & Estrella	San Clemente	.68	B	.82	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.51	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.39	A	.40	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.68	B	.59	A
123. I-5 SB Ramps & Pico (a)	San Clemente	.88	D	1.39	F
With Mitigation		.59	A	.54	A
124. I-5 NB Ramps & Pico (a)	San Clemente	1.06	F	.92	E
With Mitigation		.85	D	.78	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.42	A	.57	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.37	A	.44	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.24	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.52	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.67	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.46	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.15	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.48	A	.43	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.74	C	.48	A
160. SR 241 SB Ramps & C St	County of Orange	.19	A	.41	A
161. SR 241 NB Ramps & C St	County of Orange	.16	A	.45	A
167. SR 241 SB Ramps & Ortega	County of Orange	.38	A	.49	A
168. SR 241 NB Ramps & Ortega	County of Orange	.40	A	.42	A
171. SR 241 SB Ramps & Hermosa	San Clemente	.37	A	.39	A
172. SR 241 NB Ramps & Hermosa	San Clemente	.24	A	.37	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-28 2025 ICU SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.92	E	.96	E
2. Jeronimo & Alicia	Mission Viejo	.88	D	.88	D
3. Trabuco & Alicia	Mission Viejo	.86	D	.95	E
4. Marguerite & Alicia	Mission Viejo	.63	B	.65	B
5. Olympiad & Alicia	Mission Viejo	.62	B	.61	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.83	D
7. Marguerite & Trabuco	Mission Viejo	.78	C	.83	D
8. Marguerite & Jeronimo	Mission Viejo	.88	D	.70	B
9. Olympiad & Jeronimo	Mission Viejo	.49	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.90	D
11. Olympiad & La Paz	Mission Viejo	.57	A	.67	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.09	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.82	D	.76	C
14. Empresa & Antonio	Rancho Santa Margarita	.62	B	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.73	C	.73	C
16. Cabot & Paseo de Valencia	Laguna Hills	.53	A	.69	B
17. Cabot & Oso	Laguna Hills	.70	B	1.02	F
18. Marguerite & Oso	Mission Viejo	.79	C	.80	C
19. Felipe & Oso	Mission Viejo	.85	D	1.10	F
20. Antonio & Oso	County of Orange	1.18	F	1.15	F
21. Marguerite & Felipe	Mission Viejo	.69	B	.86	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.74	C	.83	D
23. Greenfield & Crown Valley	Laguna Niguel	.81	D	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.75	C	.99	E
25. Forbes & Crown Valley	Laguna Niguel	.87	D	1.04	F
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.97	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.94	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.69	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	1.03	F
31. Antonio & Crown Valley	County of Orange	.87	D	1.03	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.09	F	.87	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.49	A	.53	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.48	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.42	A	.56	A
36. Marguerite & Avery	Mission Viejo	.79	C	.91	E
37. Golden Lantern & Marina Hills	Laguna Niguel	.89	D	.88	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.93	E	.91	E
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.59	A	.61	B
41. Camino Capistrano & Oso Road	San Juan Capistrano	.51	A	.38	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.80	C	.83	D
43. Del Obispo & Ortega	San Juan Capistrano	.67	B	.72	C
44. Rancho Viejo & Ortega (a)	San Juan Capistrano	.79	C	.96	E
With Mitigation		.79	C	.77	C

Table F-28 (cont) 2025 ICU SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega (a)	San Juan Capistrano	.83	D	1.03	F
With Mitigation		.80	C	.88	D
46. Antonio/La Pata & Ortega (a)	County of Orange	1.68	F	1.54	F
With Mitigation		.55	A	.86	D
47. Alipaz & Del Obispo	San Juan Capistrano	.69	B	.68	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	1.09	F	1.15	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.66	B	.80	C
50. Valle & San Juan Creek	San Juan Capistrano	.92	E	.90	D
51. La Novia & San Juan Creek (a)	San Juan Capistrano	1.20	F	1.08	F
With Mitigation		.89	D	.67	B
53. Del Obispo & Del Avion	San Juan Capistrano	.69	B	.63	B
54. Alipaz & Del Avion	San Juan Capistrano	.42	A	.36	A
55. Del Obispo & Stonehill	Dana Point	.93	E	.97	E
58. Del Rio & Los Mares	San Clemente	.15	A	.14	A
60. La Pata & Vista Hermosa	San Clemente	.94	E	.81	D
61. Talega & Vista Hermosa	San Clemente	.54	A	.63	B
62. Vera Cruz & Los Mares	San Clemente	.64	B	.49	A
63. Vera Cruz & Vista Hermosa	San Clemente	1.04	F	1.21	F
64. La Pata & Pico	San Clemente	.84	D	.80	C
65. Vista Hermosa & Pico	San Clemente	.68	B	.75	C
66. PCH & Camino Capistrano	San Clemente	.73	C	.99	E
67. El Camino Real & Pico	San Clemente	.76	C	.94	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
74. Antonio & North River	County of Orange	.88	D	.83	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.46	A	.73	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.68	B	.85	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.89	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.79	C	.90	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.96	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.76	C	.92	E
108. I-5 SB Ramps & Avery	Mission Viejo	.74	C	.93	E
109. I-5 NB Ramps & Avery	Mission Viejo	.93	E	1.06	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.61	B	.75	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.48	A	.59	A
112. I-5 SB Ramps & Ortega ¹ (a)	San Juan Capistrano	.99	E	1.05	F
With Mitigation		.89	D	.96	E
113. I-5 NB Ramps & Ortega ¹ (a)	San Juan Capistrano	1.14	F	1.03	F
With Mitigation		.82	D	.79	C
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.86	D	.89	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.91	E	.98	E
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.19	F	1.34	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.32	A

Table F-28 (cont)
 2025 ICU SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.38	A	.34	A
119. I-5 SB Ramps & Estrella	San Clemente	.80	C	.95	E
120. I-5 NB Ramps & Estrella	San Clemente	.43	A	.61	B
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.49	A	.63	B
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.57	A	.59	A
123. I-5 SB Ramps & Pico	San Clemente	.93	E	1.22	F
124. I-5 NB Ramps & Pico	San Clemente	.94	E	.86	D
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.64	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.40	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.54	A	.54	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.46	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.89	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.43	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.38	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.48	A	.45	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.78	C	.47	A
160. SR 241 SB Ramps & C St	County of Orange	.19	A	.46	A
161. SR 241 NB Ramps & C St	County of Orange	.19	A	.47	A
167. SR 241 SB Ramps & Ortega	County of Orange	.24	A	.27	A
168. SR 241 NB Ramps & Ortega	County of Orange	.24	A	.32	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-29 2025 ICU SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.92	E	.93	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.84	D
3. Trabuco & Alicia	Mission Viejo	.67	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.57	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.79	C	.70	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.65	B	.83	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.72	C
8. Marguerite & Jeronimo	Mission Viejo	.83	D	.69	B
9. Olympiad & Jeronimo	Mission Viejo	.58	A	.46	A
10. Marguerite & La Paz	Mission Viejo	.63	B	.91	E
11. Olympiad & La Paz	Mission Viejo	.53	A	.69	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.10	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.80	C	.76	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.46	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.70	B
16. Cabot & Paseo de Valencia	Laguna Hills	.52	A	.69	B
17. Cabot & Oso	Laguna Hills	.70	B	1.01	F
18. Marguerite & Oso	Mission Viejo	.79	C	.79	C
19. Felipe & Oso	Mission Viejo	.85	D	1.10	F
20. Antonio & Oso	County of Orange	1.00	E	1.03	F
21. Marguerite & Felipe	Mission Viejo	.69	B	.85	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.64	B	.75	C
23. Greenfield & Crown Valley	Laguna Niguel	.76	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.70	B	.92	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.70	B	.85	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.13	F	1.00	E
31. Antonio & Crown Valley (a)	County of Orange	.84	D	1.04	F
With Mitigation		.77	C	.90	D
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.62	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.47	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.40	A	.50	A
35. Camino Capistrano & Avery	Laguna Niguel	.59	A	.70	B
36. Marguerite & Avery	Mission Viejo	.75	C	.82	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.82	D	.72	C
38. Camino Capistrano & Los Padres	San Juan Capistrano	.36	A	.61	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.91	E	.71	C
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.61	B	.62	B
41. Camino Capistrano & Oso Road	San Juan Capistrano	.68	B	.57	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.61	B	.61	B
43. Del Obispo & Ortega	San Juan Capistrano	.59	A	.66	B

Table F-29 (cont)

2025 ICU SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
44. Rancho Viejo & Ortega	San Juan Capistrano	.78	C	.97	E
45. La Novia & Ortega	San Juan Capistrano	.77	C	.89	D
46. Antonio/La Pata & Ortega (a)	County of Orange	1.18	F	1.30	F
With Mitigation		.88	D	.89	D
47. Alipaz & Del Obispo	San Juan Capistrano	.66	B	.79	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.88	D	1.05	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.68	B	.86	D
50. Valle & San Juan Creek	San Juan Capistrano	.64	B	.88	D
51. La Novia & San Juan Creek	San Juan Capistrano	.90	D	.69	B
52. La Pata & San Juan Creek (a)	County of Orange	.70	B	.96	E
With Mitigation		.66	B	.77	C
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.37	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.65	B	.76	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.32	A	.53	A
57. La Pata & Las Ramblas	County of Orange	.71	C	.58	A
58. Del Rio & Los Mares	San Clemente	.46	A	.57	A
59. La Pata & Del Rio	San Clemente	.86	D	1.00	E
60. La Pata & Vista Hermosa	San Clemente	1.02	F	.89	D
61. Talega & Vista Hermosa	San Clemente	.48	A	.55	A
62. Vera Cruz & Los Mares	San Clemente	.45	A	.28	A
63. Vera Cruz & Vista Hermosa	San Clemente	.70	B	.75	C
64. La Pata & Pico (a)	San Clemente	.97	E	1.12	F
With Mitigation		.77	C	.83	D
65. Vista Hermosa & Pico	San Clemente	.57	A	.80	C
66. PCH & Camino Capistrano	San Clemente	.40	A	.52	A
67. El Camino Real & Pico	San Clemente	.53	A	.57	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
74. Antonio & North River	County of Orange	.90	D	.92	E
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.85	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.59	A	.72	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.87	D	.83	D
104. I-5 SB Ramps & Oso	Mission Viejo	.67	B	.78	C
105. I-5 NB Ramps & Oso	Mission Viejo	.77	C	.85	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.94	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.86	D
108. I-5 SB Ramps & Avery	Mission Viejo	.58	A	.68	B
109. I-5 NB Ramps & Avery	Mission Viejo	.61	B	.72	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.66	B	.76	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.55	A	.64	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.82	D	.88	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.61	B	.66	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.77	C	.89	D

Table F-29 (cont)
 2025 ICU SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
115. Valle & La Novia/I-5 NB Ramps (a)	San Juan Capistrano	.91	E	.95	E
With Mitigation		.74	C	.79	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.73	C	.85	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.38	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.26	A	.37	A
119. I-5 SB Ramps & Estrella	San Clemente	.69	B	.83	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.40	A	.44	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.62	B	.54	A
123. I-5 SB Ramps & Pico (a)	San Clemente	1.03	F	1.08	F
With Mitigation		.81	D	.76	C
124. I-5 NB Ramps & Pico	San Clemente	.92	E	.82	D
125. I-5 SB Ramp & El Camino Real	San Clemente	.46	A	.62	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.41	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.24	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.51	A	.52	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.57	A	.38	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.66	B	.82	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.44	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.16	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.48	A	.43	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.75	C	.46	A
160. SR 241 SB Ramps & C St	County of Orange	.18	A	.45	A
161. SR 241 NB Ramps & C St	County of Orange	.17	A	.47	A
167. SR 241 SB Ramps & Ortega	County of Orange	.33	A	.35	A
168. SR 241 NB Ramps & Ortega	County of Orange	.33	A	.38	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-30
 2025 ICU SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.95	E
2. Jeronimo & Alicia	Mission Viejo	.87	D	.84	D
3. Trabuco & Alicia	Mission Viejo	.81	D	.95	E
4. Marguerite & Alicia	Mission Viejo	.62	B	.65	B
5. Olympiad & Alicia	Mission Viejo	.62	B	.61	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.74	C	.80	C
8. Marguerite & Jeronimo	Mission Viejo	.85	D	.69	B
9. Olympiad & Jeronimo	Mission Viejo	.48	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.87	D
11. Olympiad & La Paz	Mission Viejo	.56	A	.63	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.08	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.82	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.70	B
16. Cabot & Paseo de Valencia	Laguna Hills	.50	A	.63	B
17. Cabot & Oso	Laguna Hills	.70	B	1.00	E
18. Marguerite & Oso	Mission Viejo	.79	C	.79	C
19. Felipe & Oso	Mission Viejo	.82	D	1.06	F
20. Antonio & Oso	County of Orange	1.12	F	1.12	F
21. Marguerite & Felipe	Mission Viejo	.67	B	.82	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.70	B	.78	C
23. Greenfield & Crown Valley	Laguna Niguel	.80	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.73	C	.94	E
25. Forbes & Crown Valley	Laguna Niguel	.87	D	1.02	F
26. Puerta Real & Crown Valley	Mission Viejo	.81	D	.97	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	1.02	F
31. Antonio & Crown Valley	County of Orange	.80	C	1.02	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.05	F	.82	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.50	A	.52	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.42	A	.57	A
36. Marguerite & Avery	Mission Viejo	.71	C	.86	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.85	D	.82	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.86	D	.86	D
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.57	A	.54	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.47	A	.37	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.71	C	.71	C
43. Del Obispo & Ortega	San Juan Capistrano	.66	B	.72	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.71	C	.93	E
45. La Novia & Ortega	San Juan Capistrano	.73	C	.87	D

Table F-30 (cont)
2025 ICU SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.60	F	1.34	F
47. Alipaz & Del Obispo	San Juan Capistrano	.71	C	.69	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.96	E	1.04	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.59	A	.70	B
50. Valle & San Juan Creek	San Juan Capistrano	.91	E	.84	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.04	F	.92	E
53. Del Obispo & Del Avion	San Juan Capistrano	.68	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.40	A	.35	A
55. Del Obispo & Stonehill	Dana Point	.94	E	.94	E
58. Del Rio & Los Mares	San Clemente	.15	A	.13	A
60. La Pata & Vista Hermosa	San Clemente	.72	C	.65	B
61. Talega & Vista Hermosa	San Clemente	.64	B	.70	B
62. Vera Cruz & Los Mares	San Clemente	.37	A	.30	A
63. Vera Cruz & Vista Hermosa	San Clemente	.84	D	.87	D
64. La Pata & Pico	San Clemente	.61	B	.76	C
65. Vista Hermosa & Pico	San Clemente	.65	B	.88	D
66. PCH & Camino Capistrano	San Clemente	.57	A	.89	D
67. El Camino Real & Pico	San Clemente	.67	B	.93	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
69. Del Cerro & Pico	San Clemente	.69	B	.80	C
74. Antonio & North River	County of Orange	.85	D	.84	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.73	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.64	B	.83	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.88	D	.83	D
104. I-5 SB Ramps & Oso	Mission Viejo	.70	B	.80	C
105. I-5 NB Ramps & Oso	Mission Viejo	.80	C	.88	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.96	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.90	D
108. I-5 SB Ramps & Avery	Mission Viejo	.70	B	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.87	D	1.06	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.59	A	.65	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.48	A	.52	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.92	E	1.00	E
113. I-5 NB Ramps & Ortega ¹ (a)	San Juan Capistrano	1.14	F	1.07	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.79	C	.85	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.79	C	.79	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.09	F	1.33	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.36	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.28	A	.34	A
119. I-5 SB Ramps & Estrella	San Clemente	.69	B	.87	D
120. I-5 NB Ramps & Estrella	San Clemente	.34	A	.56	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.45	A	.56	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.45	A	.48	A

Table F-30 (cont)
 2025 ICU SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
123. I-5 SB Ramps & Pico	San Clemente	.67	B	1.07	F
124. I-5 NB Ramps & Pico (b)	San Clemente	<i>1.14</i>	<i>F</i>	<i>1.04</i>	<i>F</i>
<i>With Mitigation</i>		<i>1.14</i>	<i>F</i>	<i>1.04</i>	<i>F</i>
125. I-5 SB Ramp & El Camino Real	San Clemente	.42	A	.60	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.43	A	.45	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.53	A	.52	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.49	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.89	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.45	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.28	F	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.52	A	.44	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.78	C	.52	A
160. SR 241 SB Ramps & C St	County of Orange	.25	A	.44	A
161. SR 241 NB Ramps & C St	County of Orange	.60	A	.44	A
162. SR 241 SB Ramps & North River	County of Orange	.74	C	.87	D
163. SR 241 NB Ramps & North River	County of Orange	.89	D	.90	D
171. SR 241 SB Ramps & Hermosa	San Clemente	.48	A	.47	A
172. SR 241 NB Ramps & Hermosa	San Clemente	.51	A	.61	B
173. SR 241 Ramps & Del Cerro	San Clemente	.22	A	.23	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

(b) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-31
 2025 ICU SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.93	E	.95	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.79	C
3. Trabuco & Alicia	Mission Viejo	.67	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.56	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.79	C	.71	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.84	D
7. Marguerite & Trabuco	Mission Viejo	.66	B	.71	C
8. Marguerite & Jeronimo	Mission Viejo	.85	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.52	A	.45	A
10. Marguerite & La Paz	Mission Viejo	.61	B	.87	D
11. Olympiad & La Paz	Mission Viejo	.56	A	.67	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.07	F	.97	E
13. Empresa & Banderas	Rancho Santa Margarita	.80	C	.73	C
14. Empresa & Antonio	Rancho Santa Margarita	.59	A	.46	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.68	B
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.67	B
17. Cabot & Oso	Laguna Hills	.69	B	1.00	E
18. Marguerite & Oso	Mission Viejo	.79	C	.77	C
19. Felipe & Oso	Mission Viejo	.86	D	1.08	F
20. Antonio & Oso	County of Orange	.98	E	.97	E
21. Marguerite & Felipe	Mission Viejo	.67	B	.85	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.64	B	.71	C
23. Greenfield & Crown Valley	Laguna Niguel	.76	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.68	B	.90	D
25. Forbes & Crown Valley	Laguna Niguel	.85	D	.99	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.70	B	.86	D
28. Los Altos & Crown Valley	Mission Viejo	.70	B	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.69	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.13	F	.98	E
31. Antonio & Crown Valley	County of Orange	.80	C	1.00	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.60	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.45	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.40	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.61	B	.73	C
36. Marguerite & Avery	Mission Viejo	.70	B	.82	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.79	C	.70	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.85	D	.64	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.64	B	.58	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.64	B	.50	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.53	A	.56	A
43. Del Obispo & Ortega	San Juan Capistrano	.59	A	.62	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.78	C	.95	E

Table F-31 (cont)
2025 ICU SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.78	C	.75	C
46. Antonio/La Pata & Ortega	County of Orange	1.17	F	.98	E
47. Alipaz & Del Obispo	San Juan Capistrano	.64	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.82	D	1.01	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.63	B	.85	D
50. Valle & San Juan Creek	San Juan Capistrano	.62	B	.77	C
51. La Novia & San Juan Creek	San Juan Capistrano	.80	C	.70	B
52. La Pata & San Juan Creek	County of Orange	.73	C	.75	C
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.29	A	.28	A
57. La Pata & Las Ramblas	County of Orange	.46	A	.42	A
58. Del Rio & Los Mares	San Clemente	.31	A	.24	A
59. La Pata & Del Rio	San Clemente	.47	A	.59	A
60. La Pata & Vista Hermosa	San Clemente	.75	C	.63	B
61. Talega & Vista Hermosa	San Clemente	.52	A	.55	A
62. Vera Cruz & Los Mares	San Clemente	.32	A	.19	A
63. Vera Cruz & Vista Hermosa	San Clemente	.59	A	.60	A
64. La Pata & Pico	San Clemente	.63	B	.80	C
65. Vista Hermosa & Pico	San Clemente	.69	B	.83	D
66. PCH & Camino Capistrano	San Clemente	.42	A	.53	A
67. El Camino Real & Pico	San Clemente	.47	A	.59	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
69. Del Cerro & Pico	San Clemente	.59	A	.69	B
74. Antonio & North River	County of Orange	.89	D	.88	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.56	A	.73	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.89	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.67	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.77	C	.86	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.93	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.84	D
108. I-5 SB Ramps & Avery	Mission Viejo	.58	A	.74	C
109. I-5 NB Ramps & Avery	Mission Viejo	.63	B	.71	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.63	B	.69	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.55	A	.62	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.79	C	.87	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.59	A	.64	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.72	C	.87	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.78	C	.74	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.68	B	.83	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.29	A	.36	A

Table F-31 (cont)
 2025 ICU SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.26	A	.35	A
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.80	C
120. I-5 NB Ramps & Estrella	San Clemente	.34	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.41	A	.46	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.45	A	.41	A
123. I-5 SB Ramps & Pico	San Clemente	.63	B	1.01	F
124. I-5 NB Ramps & Pico (a)	San Clemente	1.09	F	1.04	F
With Mitigation		1.09	F	1.04	F
125. I-5 SB Ramp & El Camino Real	San Clemente	.43	A	.55	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.46	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.51	A	.50	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.57	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.68	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.46	A	.70	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.12	F	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.50	A	.42	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.77	C	.51	A
160. SR 241 SB Ramps & C St	County of Orange	.25	A	.43	A
161. SR 241 NB Ramps & C St	County of Orange	.55	A	.43	A
162. SR 241 SB Ramps & North River	County of Orange	.74	C	.90	D
163. SR 241 NB Ramps & North River	County of Orange	.86	D	.83	D
171. SR 241 SB Ramps & Hermosa	San Clemente	.35	A	.41	A
172. SR 241 NB Ramps & Hermosa	San Clemente	.45	A	.50	A
173. SR 241 Ramps & Del Cerro	San Clemente	.17	A	.21	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-32
2025 ICU SUMMARY – A7C-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.93	E	.91	E
2. Jeronimo & Alicia	Mission Viejo	.66	B	.73	C
3. Trabuco & Alicia	Mission Viejo	.64	B	.68	B
4. Marguerite & Alicia	Mission Viejo	.58	A	.63	B
5. Olympiad & Alicia	Mission Viejo	.70	B	.66	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.45	A	.74	C
7. Marguerite & Trabuco	Mission Viejo	.59	A	.64	B
8. Marguerite & Jeronimo	Mission Viejo	.82	D	.63	B
9. Olympiad & Jeronimo	Mission Viejo	.45	A	.45	A
10. Marguerite & La Paz	Mission Viejo	.59	A	.73	C
11. Olympiad & La Paz	Mission Viejo	.56	A	.58	A
12. Empresa & Santa Margarita	Rancho Santa Margarita	.77	C	.74	C
13. Empresa & Banderas	Rancho Santa Margarita	.87	D	.68	B
14. Empresa & Antonio	Rancho Santa Margarita	.53	A	.48	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.70	B
16. Cabot & Paseo de Valencia	Laguna Hills	.41	A	.59	A
17. Cabot & Oso	Laguna Hills	.73	C	.96	E
18. Marguerite & Oso	Mission Viejo	.78	C	.68	B
19. Felipe & Oso	Mission Viejo	.85	D	1.16	F
20. Antonio & Oso	County of Orange	1.08	F	.90	D
21. Marguerite & Felipe	Mission Viejo	.68	B	.98	E
22. Moulton & Crown Valley ¹	Laguna Niguel	.61	B	.71	C
23. Greenfield & Crown Valley	Laguna Niguel	.77	C	.90	D
24. Cabot & Crown Valley	Laguna Niguel	.64	B	.91	E
25. Forbes & Crown Valley	Laguna Niguel	.82	D	.97	E
26. Puerta Real & Crown Valley	Mission Viejo	.81	D	.98	E
27. El Regateo & Crown Valley	Mission Viejo	.74	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.74	C	.97	E
29. Bellogente & Crown Valley	Mission Viejo	.74	C	.72	C
30. Marguerite & Crown Valley	Mission Viejo	1.13	F	1.13	F
31. Antonio & Crown Valley	County of Orange	1.16	F	1.00	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.60	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.43	A	.42	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.44	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.62	B	.73	C
36. Marguerite & Avery	Mission Viejo	.69	B	.87	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.77	C	.67	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.37	A	.62	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.85	D	.63	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.63	B	.55	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.64	B	.50	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.51	A	.53	A
43. Del Obispo & Ortega	San Juan Capistrano	.58	A	.65	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.73	C	.94	E

Table F-32 (cont)
2025 ICU SUMMARY – A7C-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.78	C	.78	C
46. Antonio/La Pata & Ortega	County of Orange	1.62	F	1.80	F
47. Alipaz & Del Obispo	San Juan Capistrano	.64	B	.79	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.83	D	1.01	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.64	B	.88	D
50. Valle & San Juan Creek	San Juan Capistrano	.70	B	.81	D
51. La Novia & San Juan Creek	San Juan Capistrano	.86	D	.73	C
52. La Pata & San Juan Creek	County of Orange	.78	C	.86	D
53. Del Obispo & Del Avion	San Juan Capistrano	.64	B	.59	A
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.75	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.32	A	.30	A
57. La Pata & Las Ramblas	County of Orange	.45	A	.45	A
58. Del Rio & Los Mares	San Clemente	.34	A	.23	A
59. La Pata & Del Rio	San Clemente	.49	A	.56	A
60. La Pata & Vista Hermosa	San Clemente	.76	C	.63	B
61. Talega & Vista Hermosa	San Clemente	.52	A	.56	A
62. Vera Cruz & Los Mares	San Clemente	.33	A	.16	A
63. Vera Cruz & Vista Hermosa	San Clemente	.60	A	.57	A
64. La Pata & Pico	San Clemente	.60	A	.79	C
65. Vista Hermosa & Pico	San Clemente	.70	B	.94	E
66. PCH & Camino Capistrano	San Clemente	.39	A	.50	A
67. El Camino Real & Pico	San Clemente	.43	A	.55	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.30	A
69. Del Cerro & Pico	San Clemente	.58	A	.72	C
74. Antonio & North River	County of Orange	.70	B	.76	C
100. I-5 SB Ramps & Alicia	Laguna Hills	.68	B	.81	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.48	A	.71	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.55	A	.70	B
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.72	C	.81	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.83	D
105. I-5 NB Ramps & Oso	Mission Viejo	.77	C	.90	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.74	C	1.03	F
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.93	E
108. I-5 SB Ramps & Avery	Mission Viejo	.60	A	.73	C
109. I-5 NB Ramps & Avery	Mission Viejo	.69	B	.68	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.64	B	.67	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.58	A	.58	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.79	C	.90	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.58	A	.65	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.73	C	.88	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.70	B	.71	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.68	B	.83	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.40	A

Table F-32 (cont)
 2025 ICU SUMMARY – A7C-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.28	A	.39	A
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.81	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.51	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.41	A	.43	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.43	A	.39	A
123. I-5 SB Ramps & Pico	San Clemente	.63	B	1.07	F
124. I-5 NB Ramps & Pico	San Clemente	1.10	F	1.03	F
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.60	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.41	A	.44	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.25	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.25	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.56	A	.57	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.55	A	.42	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.89	D	1.27	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.71	C	.85	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.61	B	.72	C
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.31	F	.51	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.34	A	.32	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.61	B	.36	A
158. SR 241 SB Ramps & Crown Valley	County of Orange	.57	A	.60	A
159. SR 241 NB Ramps & Crown Valley	County of Orange	.83	D	.40	A
162. SR 241 SB Ramps & North River	County of Orange	.44	A	.51	A
163. SR 241 NB Ramps & North River	County of Orange	.15	A	.17	A
171. SR 241 SB Ramps & Hermosa	San Clemente	.62	B	.52	A
172. SR 241 NB Ramps & Hermosa	San Clemente	.57	A	.62	B
173. SR 241 Ramps & Del Cerro	San Clemente	.18	A	.20	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-33 2025 ICU SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.87	D	.85	D
3. Trabuco & Alicia	Mission Viejo	.81	D	.95	E
4. Marguerite & Alicia	Mission Viejo	.61	B	.66	B
5. Olympiad & Alicia	Mission Viejo	.63	B	.61	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.74	C	.80	C
8. Marguerite & Jeronimo	Mission Viejo	.84	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.49	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.86	D
11. Olympiad & La Paz	Mission Viejo	.55	A	.62	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.08	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.83	D	.75	C
14. Empresa & Antonio	Rancho Santa Margarita	.62	B	.48	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.70	B
16. Cabot & Paseo de Valencia	Laguna Hills	.50	A	.64	B
17. Cabot & Oso	Laguna Hills	.69	B	1.00	E
18. Marguerite & Oso	Mission Viejo	.81	D	.79	C
19. Felipe & Oso	Mission Viejo	.83	D	1.06	F
20. Antonio & Oso	County of Orange	1.10	F	1.11	F
21. Marguerite & Felipe	Mission Viejo	.67	B	.84	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.70	B	.80	C
23. Greenfield & Crown Valley	Laguna Niguel	.80	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.73	C	.95	E
25. Forbes & Crown Valley	Laguna Niguel	.87	D	1.03	F
26. Puerta Real & Crown Valley	Mission Viejo	.81	D	.97	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	1.02	F
31. Antonio & Crown Valley	County of Orange	.80	C	1.02	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.05	F	.82	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.50	A	.51	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.42	A	.57	A
36. Marguerite & Avery	Mission Viejo	.71	C	.86	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.85	D	.81	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.85	D	.85	D
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.58	A	.54	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.47	A	.37	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.70	B	.72	C
43. Del Obispo & Ortega	San Juan Capistrano	.66	B	.73	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.72	C	.94	E
45. La Novia & Ortega	San Juan Capistrano	.74	C	.88	D

Table F-33 (cont)
2025 ICU SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.62	F	1.36	F
47. Alipaz & Del Obispo	San Juan Capistrano	.71	C	.69	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.98	E	1.05	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.60	A	.70	B
50. Valle & San Juan Creek	San Juan Capistrano	.91	E	.85	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.05	F	.91	E
53. Del Obispo & Del Avion	San Juan Capistrano	.68	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.40	A	.35	A
55. Del Obispo & Stonehill	Dana Point	.93	E	.95	E
58. Del Rio & Los Mares	San Clemente	.15	A	.13	A
60. La Pata & Vista Hermosa	San Clemente	.76	C	.64	B
61. Talega & Vista Hermosa	San Clemente	.57	A	.64	B
62. Vera Cruz & Los Mares	San Clemente	.37	A	.32	A
63. Vera Cruz & Vista Hermosa	San Clemente	.87	D	.91	E
64. La Pata & Pico	San Clemente	.66	B	.87	D
65. Vista Hermosa & Pico	San Clemente	.57	A	.64	B
66. PCH & Camino Capistrano	San Clemente	.55	A	.86	D
67. El Camino Real & Pico	San Clemente	.69	B	.93	E
68. El Camino Real & Cristianitos	San Clemente	.37	A	.57	A
74. Antonio & North River	County of Orange	.85	D	.83	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.73	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.46	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.64	B	.81	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.88	D	.83	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.80	C
105. I-5 NB Ramps & Oso	Mission Viejo	.80	C	.88	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.72	C	.97	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.76	C	.91	E
108. I-5 SB Ramps & Avery	Mission Viejo	.72	C	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.89	D	1.06	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.58	A	.65	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.49	A	.52	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.95	E	1.02	F
113. I-5 NB Ramps & Ortega ¹ (a)	San Juan Capistrano	1.14	F	1.08	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.81	D	.85	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.84	D	.79	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.10	F	1.34	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.31	A	.34	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.28	A	.34	A
119. I-5 SB Ramps & Estrella	San Clemente	.69	B	.89	D
120. I-5 NB Ramps & Estrella	San Clemente	.35	A	.57	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.45	A	.54	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.50	A	.53	A
123. I-5 SB Ramps & Pico	San Clemente	.88	D	1.01	F

Table F-33 (cont)
 2025 ICU SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
124. I-5 NB Ramps & Pico	San Clemente	.89	D	.74	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.59	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.35	A	.42	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.27	A	.35	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.35	A	.55	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.53	A	.54	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.49	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.08	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.89	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.44	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.28	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.52	A	.42	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.77	C	.52	A
160. SR 241 SB Ramps & C St	County of Orange	.25	A	.44	A
161. SR 241 NB Ramps & C St	County of Orange	.57	A	.44	A
162. SR 241 SB Ramps & North River	County of Orange	.73	C	.87	D
163. SR 241 NB Ramps & North River	County of Orange	.86	D	.86	D
169. SR 241 SB Ramps & Pico	County of Orange	.63	B	.81	D
170. SR 241 NB Ramps & Pico	County of Orange	.66	B	.69	B
174. Cristianitos & SR 241 Ramps	San Diego County	.36	A	.49	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Table F-34
2025 ICU SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.79	C
3. Trabuco & Alicia	Mission Viejo	.68	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.57	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.77	C	.70	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.83	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.70	B
8. Marguerite & Jeronimo	Mission Viejo	.81	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.56	A	.45	A
10. Marguerite & La Paz	Mission Viejo	.63	B	.88	D
11. Olympiad & La Paz	Mission Viejo	.53	A	.66	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.09	F	.97	E
13. Empresa & Banderas	Rancho Santa Margarita	.81	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.69	B
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.65	B
17. Cabot & Oso	Laguna Hills	.69	B	.99	E
18. Marguerite & Oso	Mission Viejo	.79	C	.77	C
19. Felipe & Oso	Mission Viejo	.86	D	1.07	F
20. Antonio & Oso	County of Orange	.98	E	.99	E
21. Marguerite & Felipe	Mission Viejo	.68	B	.85	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.64	B	.73	C
23. Greenfield & Crown Valley	Laguna Niguel	.76	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.68	B	.91	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.97	E
27. El Regateo & Crown Valley	Mission Viejo	.70	B	.86	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	.98	E
31. Antonio & Crown Valley	County of Orange	.81	D	.99	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.60	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.45	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.41	A	.50	A
35. Camino Capistrano & Avery	Laguna Niguel	.61	B	.73	C
36. Marguerite & Avery	Mission Viejo	.72	C	.81	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.71	C
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.65	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.85	D	.64	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.63	B	.58	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.64	B	.49	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.53	A	.54	A
43. Del Obispo & Ortega	San Juan Capistrano	.59	A	.63	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.78	C	.95	E

Table F-34 (cont)
 2025 ICU SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.77	C	.76	C
46. Antonio/La Pata & Ortega	County of Orange	1.18	F	1.00	E
47. Alipaz & Del Obispo	San Juan Capistrano	.64	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.82	D	.99	E
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.64	B	.85	D
50. Valle & San Juan Creek	San Juan Capistrano	.63	B	.77	C
51. La Novia & San Juan Creek	San Juan Capistrano	.79	C	.72	C
52. La Pata & San Juan Creek	County of Orange	.74	C	.79	C
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.30	A	.30	A
57. La Pata & Las Ramblas	County of Orange	.50	A	.46	A
58. Del Rio & Los Mares	San Clemente	.31	A	.26	A
59. La Pata & Del Rio	San Clemente	.51	A	.61	B
60. La Pata & Vista Hermosa	San Clemente	.72	C	.63	B
61. Talega & Vista Hermosa	San Clemente	.50	A	.49	A
62. Vera Cruz & Los Mares	San Clemente	.38	A	.21	A
63. Vera Cruz & Vista Hermosa	San Clemente	.62	B	.61	B
64. La Pata & Pico	San Clemente	.68	B	.83	D
65. Vista Hermosa & Pico	San Clemente	.52	A	.58	A
66. PCH & Camino Capistrano	San Clemente	.38	A	.50	A
67. El Camino Real & Pico	San Clemente	.46	A	.56	A
68. El Camino Real & Cristianitos	San Clemente	.32	A	.55	A
74. Antonio & North River	County of Orange	.90	D	.90	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.71	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.56	A	.72	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.88	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.67	B	.78	C
105. I-5 NB Ramps & Oso	Mission Viejo	.78	C	.85	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.94	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.86	D
108. I-5 SB Ramps & Avery	Mission Viejo	.59	A	.74	C
109. I-5 NB Ramps & Avery	Mission Viejo	.64	B	.72	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.63	B	.68	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.54	A	.61	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.80	C	.88	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.59	A	.64	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.72	C	.86	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.78	C	.74	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.68	B	.83	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.38	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.27	A	.35	A

Table F-34 (cont)
 2025 ICU SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.82	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.41	A	.48	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.48	A	.48	A
123. I-5 SB Ramps & Pico	San Clemente	.78	C	.85	D
124. I-5 NB Ramps & Pico	San Clemente	.85	D	.67	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.43	A	.53	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.39	A	.43	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.24	A	.30	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.34	A	.54	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.51	A	.53	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.57	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.68	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.45	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.12	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.52	A	.42	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.76	C	.51	A
160. SR 241 SB Ramps & C St	County of Orange	.25	A	.42	A
161. SR 241 NB Ramps & C St	County of Orange	.55	A	.42	A
162. SR 241 SB Ramps & North River	County of Orange	.74	C	.90	D
163. SR 241 NB Ramps & North River	County of Orange	.83	D	.79	C
169. SR 241 SB Ramps & Pico	County of Orange	.46	A	.64	B
170. SR 241 NB Ramps & Pico	County of Orange	.56	A	.66	B
174. Cristianitos & SR 241 Ramps	San Diego County	.32	A	.48	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-35
2025 ICU SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.91	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.73	C	.83	D
3. Trabuco & Alicia	Mission Viejo	.72	C	.75	C
4. Marguerite & Alicia	Mission Viejo	.57	A	.68	B
5. Olympiad & Alicia	Mission Viejo	.80	C	.76	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.67	B	.87	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.75	C
8. Marguerite & Jeronimo	Mission Viejo	.85	D	.77	C
9. Olympiad & Jeronimo	Mission Viejo	.62	B	.52	A
10. Marguerite & La Paz	Mission Viejo	.66	B	.90	D
11. Olympiad & La Paz	Mission Viejo	.55	A	.70	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.13	F	.97	E
13. Empresa & Banderas	Rancho Santa Margarita	.93	E	.75	C
14. Empresa & Antonio	Rancho Santa Margarita	.59	A	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.73	C
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.69	B
17. Cabot & Oso	Laguna Hills	.69	B	1.07	F
18. Marguerite & Oso	Mission Viejo	.86	D	.80	C
19. Felipe & Oso	Mission Viejo	.95	E	1.18	F
20. Antonio & Oso	County of Orange	1.20	F	.96	E
21. Marguerite & Felipe	Mission Viejo	.78	C	1.03	F
22. Moulton & Crown Valley ¹	Laguna Niguel	.65	B	.73	C
23. Greenfield & Crown Valley	Laguna Niguel	.79	C	.89	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.94	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.83	D	.99	E
27. El Regateo & Crown Valley	Mission Viejo	.73	C	.93	E
28. Los Altos & Crown Valley	Mission Viejo	.73	C	.97	E
29. Bellogente & Crown Valley	Mission Viejo	.74	C	.72	C
30. Marguerite & Crown Valley	Mission Viejo	1.20	F	1.18	F
31. Antonio & Crown Valley	County of Orange	1.26	F	1.07	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.61	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.48	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.42	A	.50	A
35. Camino Capistrano & Avery	Laguna Niguel	.62	B	.78	C
36. Marguerite & Avery	Mission Viejo	.73	C	.88	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.81	D	.68	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.37	A	.65	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.85	D	.66	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.63	B	.57	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.66	B	.54	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.52	A	.54	A
43. Del Obispo & Ortega	San Juan Capistrano	.57	A	.66	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.74	C	.98	E

Table F-35 (cont)
 2025 ICU SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.82	D	.82	D
46. Antonio/La Pata & Ortega	County of Orange	1.25	F	1.86	F
47. Alipaz & Del Obispo	San Juan Capistrano	.64	B	.78	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.83	D	1.07	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.65	B	.86	D
50. Valle & San Juan Creek	San Juan Capistrano	.67	B	.81	D
51. La Novia & San Juan Creek	San Juan Capistrano	.86	D	.76	C
52. La Pata & San Juan Creek	County of Orange	.79	C	.98	E
53. Del Obispo & Del Avion	San Juan Capistrano	.65	B	.60	A
54. Alipaz & Del Avion	San Juan Capistrano	.35	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.34	A	.31	A
57. La Pata & Las Ramblas	County of Orange	.61	B	.51	A
58. Del Rio & Los Mares	San Clemente	.33	A	.26	A
59. La Pata & Del Rio	San Clemente	.61	B	.65	B
60. La Pata & Vista Hermosa	San Clemente	.84	D	.65	B
61. Talega & Vista Hermosa	San Clemente	.48	A	.51	A
62. Vera Cruz & Los Mares	San Clemente	.37	A	.21	A
63. Vera Cruz & Vista Hermosa	San Clemente	.66	B	.62	B
64. La Pata & Pico	San Clemente	.68	B	.89	D
65. Vista Hermosa & Pico	San Clemente	.49	A	.65	B
66. PCH & Camino Capistrano	San Clemente	.38	A	.48	A
67. El Camino Real & Pico	San Clemente	.46	A	.56	A
68. El Camino Real & Cristianitos	San Clemente	.33	A	.54	A
74. Antonio & North River	County of Orange	.65	B	.67	B
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.46	A	.73	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.55	A	.76	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.88	D	.81	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.78	C
105. I-5 NB Ramps & Oso	Mission Viejo	.87	D	.87	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.76	C	1.05	F
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.95	E
108. I-5 SB Ramps & Avery	Mission Viejo	.59	A	.74	C
109. I-5 NB Ramps & Avery	Mission Viejo	.66	B	.69	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.63	B	.72	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.56	A	.59	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.80	C	.93	E
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.60	A	.66	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.73	C	.88	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.71	C	.71	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.67	B	.84	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.33	A	.39	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.29	A	.39	A

Table F-35 (cont)
 2025 ICU SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
119. I-5 SB Ramps & Estrella	San Clemente	.68	B	.83	D
120. I-5 NB Ramps & Estrella	San Clemente	.37	A	.51	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.42	A	.48	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.50	A	.47	A
123. I-5 SB Ramps & Pico	San Clemente	.84	D	.92	E
124. I-5 NB Ramps & Pico	San Clemente	.87	D	.68	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.57	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.38	A	.41	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.24	A	.30	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.34	A	.54	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.52	A	.56	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.41	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.77	C	1.10	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.66	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.45	A	.68	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.12	F	.51	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.48	A	.38	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.84	D	.34	A
158. SR 241 SB Ramps & Crown Valley	County of Orange	.32	A	.44	A
159. SR 241 NB Ramps & Crown Valley	County of Orange	.58	A	.23	A
162. SR 241 SB & North River	County of Orange	.30	A	.32	A
163. SR 241 NB & North River	County of Orange	.08	A	.10	A
169. SR 241 SB Ramps & Pico	County of Orange	.60	A	.68	B
170. SR 241 NB Ramps & Pico	County of Orange	.74	C	.78	C
174. Cristianitos & SR 241 Ramps	San Diego County	.32	A	.47	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-36 2025 ICU SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.92	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.87	D	.84	D
3. Trabuco & Alicia	Mission Viejo	.82	D	.95	E
4. Marguerite & Alicia	Mission Viejo	.62	B	.65	B
5. Olympiad & Alicia	Mission Viejo	.62	B	.60	A
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.74	C	.81	D
8. Marguerite & Jeronimo	Mission Viejo	.84	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.49	A	.41	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.87	D
11. Olympiad & La Paz	Mission Viejo	.55	A	.62	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.08	F	.96	E
13. Empresa & Banderas	Rancho Santa Margarita	.82	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.72	C	.70	B
16. Cabot & Paseo de Valencia	Laguna Hills	.50	A	.67	B
17. Cabot & Oso	Laguna Hills	.69	B	1.00	E
18. Marguerite & Oso	Mission Viejo	.80	C	.79	C
19. Felipe & Oso	Mission Viejo	.84	D	1.05	F
20. Antonio & Oso	County of Orange	1.13	F	1.11	F
21. Marguerite & Felipe	Mission Viejo	.68	B	.84	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.70	B	.80	C
23. Greenfield & Crown Valley	Laguna Niguel	.80	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.74	C	.97	E
25. Forbes & Crown Valley	Laguna Niguel	.88	D	1.03	F
26. Puerta Real & Crown Valley	Mission Viejo	.81	D	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.71	C	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.12	F	1.02	F
31. Antonio & Crown Valley	County of Orange	.80	C	1.02	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.05	F	.82	D
33. Cabot & Paseo de Colinas	Laguna Niguel	.51	A	.52	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.47	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.42	A	.57	A
36. Marguerite & Avery	Mission Viejo	.73	C	.88	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.86	D	.83	D
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.90	D	.90	D
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.57	A	.55	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.50	A	.38	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.76	C	.67	B
43. Del Obispo & Ortega	San Juan Capistrano	.65	B	.72	C
44. Rancho Viejo & Ortega	San Juan Capistrano	.72	C	.93	E
45. La Novia & Ortega	San Juan Capistrano	.75	C	.89	D

Table F-36 (cont)
2025 ICU SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
46. Antonio/La Pata & Ortega	County of Orange	1.62	F	1.37	F
47. Alipaz & Del Obispo	San Juan Capistrano	.70	B	.69	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	1.00	E	1.07	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.62	B	.72	C
50. Valle & San Juan Creek	San Juan Capistrano	.92	E	.85	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.04	F	.93	E
53. Del Obispo & Del Avion	San Juan Capistrano	.68	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.41	A	.35	A
55. Del Obispo & Stonehill	Dana Point	.93	E	.95	E
58. Del Rio & Los Mares	San Clemente	.15	A	.13	A
60. La Pata & Vista Hermosa	San Clemente	.77	C	.63	B
61. Talega & Vista Hermosa	San Clemente	.59	A	.65	B
62. Vera Cruz & Los Mares	San Clemente	.37	A	.35	A
63. Vera Cruz & Vista Hermosa	San Clemente	.87	D	.94	E
64. La Pata & Pico	San Clemente	.66	B	.87	D
65. Vista Hermosa & Pico	San Clemente	.57	A	.67	B
66. PCH & Camino Capistrano	San Clemente	.58	A	.90	D
67. El Camino Real & Pico	San Clemente	.73	C	.94	E
68. El Camino Real & Cristianitos	San Clemente	.71	C	.88	D
74. Antonio & North River	County of Orange	.84	D	.84	D
81. SR 241 & Cristianitos	County of Orange	.66	B	.90	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.65	B	.85	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.89	D	.83	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.80	C
105. I-5 NB Ramps & Oso	Mission Viejo	.80	C	.88	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.95	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.75	C	.90	D
108. I-5 SB Ramps & Avery	Mission Viejo	.71	C	.94	E
109. I-5 NB Ramps & Avery	Mission Viejo	.90	D	1.06	F
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.60	A	.68	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.50	A	.54	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.95	E	1.00	E
113. I-5 NB Ramps & Ortega ¹ (a)	San Juan Capistrano	1.14	F	1.07	F
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.81	D	.84	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.87	D	.83	D
116. Camino Capistrano & Stonehill	San Juan Capistrano	1.13	F	1.33	F
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.34	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.28	A	.32	A
119. I-5 SB Ramps & Estrella	San Clemente	.68	B	.88	D
120. I-5 NB Ramps & Estrella	San Clemente	.35	A	.57	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.45	A	.52	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.51	A	.52	A

Table F-36 (cont)
 2025 ICU SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
123. I-5 SB Ramps & Pico	San Clemente	.88	D	1.05	F
124. I-5 NB Ramps & Pico	San Clemente	.90	D	.75	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.43	A	.59	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.35	A	.42	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.20	A	.17	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.77	C	.80	C
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.54	A	.54	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.48	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.90	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.45	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.31	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.52	A	.43	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.78	C	.52	A
160. SR 241 SB Ramps & C St	County of Orange	.25	A	.43	A
161. SR 241 NB Ramps & C St	County of Orange	.58	A	.44	A
162. SR 241 SB Ramps & North River	County of Orange	.73	C	.88	D
163. SR 241 NB Ramps & North River	County of Orange	.85	D	.85	D
169. SR 241 SB Ramps & Pico	County of Orange	.65	B	.83	D
170. SR 241 NB Ramps & Pico	County of Orange	.72	C	.72	C

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) An indirect adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs.

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.93	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.71	C	.79	C
3. Trabuco & Alicia	Mission Viejo	.68	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.57	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.77	C	.70	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.64	B	.83	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.71	C
8. Marguerite & Jeronimo	Mission Viejo	.81	D	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.57	A	.45	A
10. Marguerite & La Paz	Mission Viejo	.63	B	.87	D
11. Olympiad & La Paz	Mission Viejo	.53	A	.66	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.09	F	.97	E
13. Empresa & Banderas	Rancho Santa Margarita	.80	C	.73	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.47	A
15. Banderas & Antonio	Rancho Santa Margarita	.71	C	.69	B
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.67	B
17. Cabot & Oso	Laguna Hills	.68	B	1.00	E
18. Marguerite & Oso	Mission Viejo	.79	C	.78	C
19. Felipe & Oso	Mission Viejo	.86	D	1.07	F
20. Antonio & Oso	County of Orange	.98	E	.99	E
21. Marguerite & Felipe	Mission Viejo	.69	B	.86	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.65	B	.72	C
23. Greenfield & Crown Valley	Laguna Niguel	.77	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.90	D
25. Forbes & Crown Valley	Laguna Niguel	.85	D	.99	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.68	B	.86	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.92	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.13	F	.99	E
31. Antonio & Crown Valley	County of Orange	.81	D	1.00	E
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.60	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.45	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.41	A	.50	A
35. Camino Capistrano & Avery	Laguna Niguel	.61	B	.72	C
36. Marguerite & Avery	Mission Viejo	.73	C	.83	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.69	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.64	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.88	D	.65	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.63	B	.59	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.66	B	.51	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.55	A	.56	A
43. Del Obispo & Ortega	San Juan Capistrano	.59	A	.62	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.79	C	.97	E

Table F-37 (cont)
2025 ICU SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
45. La Novia & Ortega	San Juan Capistrano	.78	C	.76	C
46. Antonio/La Pata & Ortega	County of Orange	1.19	F	.99	E
47. Alipaz & Del Obispo	San Juan Capistrano	.65	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.82	D	1.00	E
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.64	B	.85	D
50. Valle & San Juan Creek	San Juan Capistrano	.62	B	.77	C
51. La Novia & San Juan Creek	San Juan Capistrano	.80	C	.75	C
52. La Pata & San Juan Creek	County of Orange	.73	C	.79	C
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.30	A	.31	A
57. La Pata & Las Ramblas	County of Orange	.51	A	.48	A
58. Del Rio & Los Mares	San Clemente	.31	A	.27	A
59. La Pata & Del Rio	San Clemente	.52	A	.65	B
60. La Pata & Vista Hermosa	San Clemente	.74	C	.64	B
61. Talega & Vista Hermosa	San Clemente	.50	A	.49	A
62. Vera Cruz & Los Mares	San Clemente	.37	A	.22	A
63. Vera Cruz & Vista Hermosa	San Clemente	.65	B	.65	B
64. La Pata & Pico	San Clemente	.68	B	.84	D
65. Vista Hermosa & Pico	San Clemente	.52	A	.59	A
66. PCH & Camino Capistrano	San Clemente	.40	A	.52	A
67. El Camino Real & Pico	San Clemente	.48	A	.59	A
68. El Camino Real & Cristianitos	San Clemente	.61	B	.79	C
74. Antonio & North River	County of Orange	.89	D	.91	E
81. SR 241 & Cristianitos	County of Orange	.57	A	.84	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.56	A	.73	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.87	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.66	B	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.78	C	.85	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.93	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.73	C	.86	D
108. I-5 SB Ramps & Avery	Mission Viejo	.57	A	.73	C
109. I-5 NB Ramps & Avery	Mission Viejo	.63	B	.72	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.65	B	.69	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.56	A	.62	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.81	D	.87	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.60	A	.64	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.73	C	.87	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.77	C	.75	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.69	B	.83	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.37	A

Table F-37 (cont)
 2025 ICU SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.27	A	.36	A
119. I-5 SB Ramps & Estrella	San Clemente	.67	B	.82	D
120. I-5 NB Ramps & Estrella	San Clemente	.35	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.41	A	.44	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.49	A	.47	A
123. I-5 SB Ramps & Pico	San Clemente	.79	C	.90	D
124. I-5 NB Ramps & Pico	San Clemente	.87	D	.69	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.42	A	.55	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.39	A	.44	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.18	A	.15	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.66	B	.70	B
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.52	A	.50	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.58	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.09	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.68	B	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.45	A	.69	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.14	F	.53	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.51	A	.43	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	.76	C	.50	A
160. SR 241 SB Ramps & C St	County of Orange	.25	A	.42	A
161. SR 241 NB Ramps & C St	County of Orange	.55	A	.42	A
162. SR 241 SB Ramps & North River	County of Orange	.74	C	.90	D
163. SR 241 NB Ramps & North River	County of Orange	.81	D	.77	C
169. SR 241 SB Ramps & Pico	County of Orange	.46	A	.64	B
170. SR 241 NB Ramps & Pico	County of Orange	.56	A	.66	B

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

Table F-38 2025 ICU SUMMARY – AIO ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.99	E
2. Jeronimo & Alicia	Mission Viejo	.73	C	.79	C
3. Trabuco & Alicia	Mission Viejo	.71	C	.75	C
4. Marguerite & Alicia	Mission Viejo	.58	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.85	D	.72	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.67	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.68	B	.74	C
8. Marguerite & Jeronimo	Mission Viejo	.84	D	.71	C
9. Olympiad & Jeronimo	Mission Viejo	.68	B	.49	A
10. Marguerite & La Paz	Mission Viejo	.64	B	.93	E
11. Olympiad & La Paz	Mission Viejo	.58	A	.76	C
12. Empresa & Santa Margarita (a)	Rancho Santa Margarita	1.17	F	1.01	F
With Mitigation		.74	C	.87	D
13. Empresa & Banderas (a)	Rancho Santa Margarita	.93	E	.84	D
With Mitigation		.70	B	.68	B
14. Empresa & Antonio	Rancho Santa Margarita	.63	B	.55	A
15. Banderas & Antonio	Rancho Santa Margarita	.76	C	.85	D
16. Cabot & Paseo de Valencia	Laguna Hills	.52	A	.71	C
17. Cabot & Oso	Laguna Hills	.70	B	.99	E
18. Marguerite & Oso	Mission Viejo	.84	D	.79	C
19. Felipe & Oso (a)	Mission Viejo	.99	E	1.23	F
With Mitigation		.73	C	.82	D
20. Antonio & Oso (a)	County of Orange	1.58	F	1.32	F
With At-Grade Mitigation		.81	D	1.01	F
With Grade Separation as Mitigation					
Southbound Antonio & Oso		.75	C	1.01	F
Northbound Antonio & Oso		.95	E	.98	E
21. Marguerite & Felipe	Mission Viejo	.72	C	.89	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.64	B	.73	C
23. Greenfield & Crown Valley	Laguna Niguel	.74	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.90	D
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.95	E
27. El Regateo & Crown Valley	Mission Viejo	.71	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.15	F	1.03	F
31. Antonio & Crown Valley (a)	County of Orange	.92	E	1.21	F
With At-Grade Mitigation		.74	C	.94	E
With Grade Separation as Mitigation					
Southbound Antonio & Crown Valley		.29	A	.30	A
Northbound Antonio & Crown Valley		.61	B	.76	C
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.77	C	.60	A

Table F-38 (cont) 2025 ICU SUMMARY – AIO ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
33. Cabot & Paseo de Colinas	Laguna Niguel	.45	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.40	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.59	A	.70	B
36. Marguerite & Avery	Mission Viejo	.75	C	.82	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.71	C
38. Camino Capistrano & Los Padres	San Juan Capistrano	.35	A	.62	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.89	D	.66	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.62	B	.61	B
41. Camino Capistrano & Oso Road	San Juan Capistrano	.66	B	.53	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.59	A	.62	B
43. Del Obispo & Ortega	San Juan Capistrano	.59	A	.65	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.81	D	.97	E
45. La Novia & Ortega	San Juan Capistrano	.82	D	.74	C
46. Antonio/La Pata & Ortega	County of Orange	1.18	F	1.00	E
With At-Grade Improvements		.76	C	.82	D
With Grade Separation					
Southbound Antonio/La Pata & Ortega		.38	A	.54	A
Northbound Antonio/La Pata & Ortega		.65	B	.74	C
47. Alipaz & Del Obispo	San Juan Capistrano	.69	B	.81	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.87	D	1.03	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.66	B	.82	D
50. Valle & San Juan Creek	San Juan Capistrano	.63	B	.76	C
51. La Novia & San Juan Creek	San Juan Capistrano	.84	D	.81	D
52. La Pata & San Juan Creek	County of Orange	.67	B	.81	D
53. Del Obispo & Del Avion	San Juan Capistrano	.62	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.76	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.32	A	.37	A
57. La Pata & Las Ramblas	County of Orange	.62	B	.63	B
58. Del Rio & Los Mares	San Clemente	.45	A	.46	A
59. La Pata & Del Rio	San Clemente	.78	C	1.00	E
60. La Pata & Vista Hermosa (a)	San Clemente	1.16	F	1.10	F
With Mitigation		.84	D	.76	C
61. Talega & Vista Hermosa	San Clemente	.49	A	.44	A
62. Vera Cruz & Los Mares	San Clemente	.42	A	.24	A
63. Vera Cruz & Vista Hermosa	San Clemente	.73	C	.72	C
64. La Pata & Pico (a)	San Clemente	1.24	F	1.36	F
With At-Grade Mitigation		.76	C	.84	D
With Grade Separation as Mitigation					
La Pata & Westbound Pico		.54	A	.48	A
La Pata & Eastbound Pico		.68	B	.83	D
65. Vista Hermosa & Pico	San Clemente	.54	A	.76	C
66. PCH & Camino Capistrano	San Clemente	.36	A	.50	A

Table F-38 (cont) 2025 ICU SUMMARY – AIO ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
67. El Camino Real & Pico	San Clemente	.50	A	.56	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.29	A
74. Antonio & North River (a)	County of Orange	1.00	E	1.07	F
With Mitigation		.80	C	.86	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.72	C	.85	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.59	A	.72	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.90	D	.89	D
104. I-5 SB Ramps & Oso	Mission Viejo	.70	B	.82	D
105. I-5 NB Ramps & Oso	Mission Viejo	.79	C	.88	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.70	B	.96	E
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.87	D
108. I-5 SB Ramps & Avery	Mission Viejo	.57	A	.70	B
109. I-5 NB Ramps & Avery	Mission Viejo	.62	B	.73	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.65	B	.70	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.56	A	.61	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.78	C	.85	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.60	A	.63	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.72	C	.86	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.78	C	.75	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.70	B	.83	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.37	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.25	A	.36	A
119. I-5 SB Ramps & Estrella	San Clemente	.70	B	.83	D
120. I-5 NB Ramps & Estrella	San Clemente	.37	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.37	A	.39	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.62	B	.55	A
123. I-5 SB Ramps & Pico (a)	San Clemente	1.06	F	1.25	F
With Mitigation		.82	D	.84	D
124. I-5 NB Ramps & Pico (a)	San Clemente	.98	E	.88	D
With Mitigation		.77	C	.77	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.46	A	.61	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.40	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.24	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.50	A	.49	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.55	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.80	C	1.11	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.67	B	.82	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.47	A	.74	C

Table F-38 (cont)
 2025 ICU SUMMARY – AIO ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
155. SR 241 NB Ramps & Antonio (a)	Rancho Santa Margarita	<i>1.25</i>	<i>F</i>	.52	A
<i>With Mitigation</i>		<i>.78</i>	<i>C</i>	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.83	D	1.26	F
157. SR 241 NB Ramps & Oso (a)	Rancho Santa Margarita	<i>1.72</i>	<i>F</i>	.65	B
<i>With Mitigation</i>		<i>1.17</i>	<i>F</i>	.65	B

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-39
2025 ICU SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.95	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.75	C	.84	D
3. Trabuco & Alicia	Mission Viejo	.74	C	.74	C
4. Marguerite & Alicia	Mission Viejo	.60	A	.68	B
5. Olympiad & Alicia	Mission Viejo	.82	D	.79	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.67	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.69	B	.79	C
8. Marguerite & Jeronimo (a)	Mission Viejo	.93	E	.77	C
With Mitigation		.83	D	.77	C
9. Olympiad & Jeronimo	Mission Viejo	.75	C	.54	A
10. Marguerite & La Paz	Mission Viejo	.67	B	.90	D
11. Olympiad & La Paz	Mission Viejo	.57	A	.72	C
12. Empresa & Santa Margarita (a)	Rancho Santa Margarita	1.22	F	1.02	F
With Mitigation		.72	C	.88	D
13. Empresa & Banderas (a)	Rancho Santa Margarita	.96	E	.82	D
With Mitigation		.72	C	.67	B
14. Empresa & Antonio	Rancho Santa Margarita	.62	B	.53	A
15. Banderas & Antonio	Rancho Santa Margarita	.75	C	.80	C
16. Cabot & Paseo de Valencia	Laguna Hills	.51	A	.71	C
17. Cabot & Oso	Laguna Hills	.68	B	1.07	F
18. Marguerite & Oso	Mission Viejo	.86	D	.85	D
19. Felipe & Oso (a)	Mission Viejo	.98	E	1.27	F
With Mitigation		.78	C	.83	D
20. Antonio & Oso (a)	County of Orange	1.37	F	1.40	F
With At-Grade Mitigation		.88	D	1.05	F
With Grade Separation as Mitigation					
Southbound Antonio & Oso		.60	A	.88	D
Northbound Antonio & Oso		1.07	F	1.05	F
21. Marguerite & Felipe	Mission Viejo	.78	C	1.01	F
22. Moulton & Crown Valley ¹	Laguna Niguel	.65	B	.75	C
23. Greenfield & Crown Valley	Laguna Niguel	.80	C	.88	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.95	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.82	D	.99	E
27. El Regateo & Crown Valley	Mission Viejo	.73	C	.92	E
28. Los Altos & Crown Valley	Mission Viejo	.75	C	.97	E
29. Bellogente & Crown Valley	Mission Viejo	.74	C	.72	C
30. Marguerite & Crown Valley	Mission Viejo	1.20	F	1.18	F
31. Antonio & Crown Valley (a)	County of Orange	1.59	F	1.27	F
With At-Grade Mitigation		.89	D	1.07	F
With Grade Separation as Mitigation					
Southbound Antonio & Crown Valley		.61	B	.79	C
Northbound Antonio & Crown Valley		.77	C	.69	B

Table F-39 (cont) 2025 ICU SUMMARY – AIO ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.63	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.49	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.42	A	.51	A
35. Camino Capistrano & Avery	Laguna Niguel	.60	A	.75	C
36. Marguerite & Avery	Mission Viejo	.79	C	.87	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.70	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.36	A	.62	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.89	D	.65	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.65	B	.63	B
41. Camino Capistrano & Oso Road	San Juan Capistrano	.69	B	.56	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.57	A	.57	A
43. Del Obispo & Ortega	San Juan Capistrano	.58	A	.63	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.87	D	1.02	F
45. La Novia & Ortega	San Juan Capistrano	.85	D	.83	D
46. Antonio/La Pata & Ortega (a)	County of Orange	1.36	F	2.00	F
With At-Grade Mitigation		.81	D	1.06	F
With Grade Separation as Mitigation					
Southbound Antonio/La Pata & Ortega		.71	C	1.04	F
Northbound Antonio/La Pata & Ortega		.78	C	.62	B
47. Alipaz & Del Obispo	San Juan Capistrano	.63	B	.78	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.83	D	1.04	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.67	B	.83	D
50. Valle & San Juan Creek	San Juan Capistrano	.67	B	.77	C
51. La Novia & San Juan Creek	San Juan Capistrano	.83	D	.83	D
52. La Pata & San Juan Creek	County of Orange	.78	C	.90	D
53. Del Obispo & Del Avion	San Juan Capistrano	.64	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.30	A
55. Del Obispo & Stonehill	Dana Point	.62	B	.75	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.43	A	.44	A
57. La Pata & Las Ramblas	County of Orange	.68	B	.62	B
58. Del Rio & Los Mares	San Clemente	.56	A	.44	A
59. La Pata & Del Rio	San Clemente	.87	D	.99	E
60. La Pata & Vista Hermosa (a)	San Clemente	1.15	F	1.23	F
With Mitigation		.82	D	.83	D
61. Talega & Vista Hermosa	San Clemente	.44	A	.43	A
62. Vera Cruz & Los Mares	San Clemente	.40	A	.26	A
63. Vera Cruz & Vista Hermosa	San Clemente	.75	C	.75	C
64. La Pata & Pico (a)	San Clemente	1.24	F	1.42	F
With At-Grade Mitigation		.74	C	.86	D
With Grade Separation as Mitigation					
La Pata & Westbound Pico		.57	A	.49	A
La Pata & Eastbound Pico		.67	B	.84	D

Table F-39 (cont)
2025 ICU SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
65. Vista Hermosa & Pico	San Clemente	.53	A	.82	D
66. PCH & Camino Capistrano	San Clemente	.36	A	.51	A
67. El Camino Real & Pico	San Clemente	.50	A	.58	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.29	A
100. I-5 SB Ramps & Alicia	Laguna Hills	.71	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.45	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.56	A	.76	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.89	D	.85	D
104. I-5 SB Ramps & Oso	Mission Viejo	.75	C	.79	C
105. I-5 NB Ramps & Oso	Mission Viejo	.92	E	.90	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.73	C	1.03	F
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.94	E
108. I-5 SB Ramps & Avery	Mission Viejo	.58	A	.70	B
109. I-5 NB Ramps & Avery	Mission Viejo	.63	B	.69	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.65	B	.76	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.57	A	.60	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.77	C	.90	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.57	A	.63	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.75	C	.86	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.69	B	.71	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.71	C	.84	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.36	A	.42	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.29	A	.41	A
119. I-5 SB Ramps & Estrella	San Clemente	.73	C	.82	D
120. I-5 NB Ramps & Estrella	San Clemente	.38	A	.50	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.36	A	.40	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.65	B	.58	A
123. I-5 SB Ramps & Pico (a)	San Clemente	1.04	F	1.32	F
With Mitigation		.82	D	.88	D
124. I-5 NB Ramps & Pico (a)	San Clemente	1.02	F	.88	D
With Mitigation		.81	D	.77	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.46	A	.62	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.40	A	.39	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.24	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.23	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.53	A	.56	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.58	A	.40	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.78	C	1.11	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.65	B	.82	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.46	A	.70	B

Table F-39 (cont)
 2025 ICU SUMMARY – AIO ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.25	F	.51	A
156. SR 241 SB Ramps & Oso (a)	Rancho Santa Margarita	.99	E	.82	D
With Mitigation		.68	B	.79	C
157. SR 241 NB Ramps & Oso (a)	Rancho Santa Margarita	2.10	F	.46	A
With Mitigation		1.07	F	.37	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-40
2025 ICU SUMMARY – AIP ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.92	E	.99	E
2. Jeronimo & Alicia	Mission Viejo	.69	B	.80	C
3. Trabuco & Alicia	Mission Viejo	.69	B	.73	C
4. Marguerite & Alicia	Mission Viejo	.60	A	.65	B
5. Olympiad & Alicia	Mission Viejo	.84	D	.72	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.67	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.67	B	.73	C
8. Marguerite & Jeronimo	Mission Viejo	.82	D	.71	C
9. Olympiad & Jeronimo	Mission Viejo	.69	B	.47	A
10. Marguerite & La Paz	Mission Viejo	.66	B	.91	E
11. Olympiad & La Paz	Mission Viejo	.57	A	.74	C
12. Empresa & Santa Margarita (a)	Rancho Santa Margarita	1.17	F	1.03	F
With Mitigation		.74	C	.89	D
13. Empresa & Banderas (a)	Rancho Santa Margarita	.93	E	.85	D
With Mitigation		.70	B	.68	B
14. Empresa & Antonio	Rancho Santa Margarita	.63	B	.55	A
15. Banderas & Antonio	Rancho Santa Margarita	.75	C	.85	D
16. Cabot & Paseo de Valencia	Laguna Hills	.55	A	.67	B
17. Cabot & Oso	Laguna Hills	.66	B	.96	E
18. Marguerite & Oso	Mission Viejo	.81	D	.77	C
19. Felipe & Oso (a)	Mission Viejo	1.00	E	1.21	F
With Mitigation		.74	C	.81	D
20. Antonio & Oso (a)	County of Orange	1.54	F	1.28	F
With At-Grade Mitigation		.81	D	.98	E
With Grade Separation as Mitigation					
Southbound Antonio & Oso		.75	C	1.00	E
Northbound Antonio & Oso		.95	E	.95	E
21. Marguerite & Felipe	Mission Viejo	.72	C	.89	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.65	B	.72	C
23. Greenfield & Crown Valley	Laguna Niguel	.75	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.90	D
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.80	C	.95	E
27. El Regateo & Crown Valley	Mission Viejo	.71	C	.88	D
28. Los Altos & Crown Valley	Mission Viejo	.71	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.68	B
30. Marguerite & Crown Valley	Mission Viejo	1.15	F	1.04	F
31. Antonio & Crown Valley (a)	County of Orange	.91	E	1.20	F
With At-Grade Mitigation		.73	C	.93	E
With Grade Separation as Mitigation					
Southbound Antonio & Crown Valley		.29	A	.30	A
Northbound Antonio & Crown Valley		.61	B	.76	C

Table F-40 (cont) 2025 ICU SUMMARY – AIP ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.59	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.43	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.41	A	.49	A
35. Camino Capistrano & Avery	Laguna Niguel	.57	A	.65	B
36. Marguerite & Avery	Mission Viejo	.69	B	.83	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.79	C	.70	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.36	A	.60	A
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.86	D	.62	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.59	A	.55	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.62	B	.48	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.55	A	.61	B
43. Del Obispo & Ortega	San Juan Capistrano	.63	B	.67	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.73	C	.98	E
45. La Novia & Ortega	San Juan Capistrano	.82	D	.76	C
46. Antonio/La Pata & Ortega (a)	County of Orange	1.21	F	1.01	F
With At-Grade Mitigation		.77	C	.83	D
With Grade Separation as Mitigation					
Southbound Antonio/La Pata & Ortega		.39	A	.54	A
Northbound Antonio/La Pata & Ortega		.65	B	.75	C
47. Alipaz & Del Obispo	San Juan Capistrano	.68	B	.82	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.84	D	1.02	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.65	B	.84	D
50. Valle & San Juan Creek	San Juan Capistrano	.64	B	.76	C
51. La Novia & San Juan Creek	San Juan Capistrano	.82	D	.83	D
52. La Pata & San Juan Creek	County of Orange	.71	C	.83	D
53. Del Obispo & Del Avion	San Juan Capistrano	.63	B	.61	B
54. Alipaz & Del Avion	San Juan Capistrano	.36	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.65	B	.76	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.32	A	.38	A
57. La Pata & Las Ramblas	County of Orange	.61	B	.63	B
58. Del Rio & Los Mares	San Clemente	.45	A	.46	A
59. La Pata & Del Rio	San Clemente	.78	C	.98	E
60. La Pata & Vista Hermosa (a)	San Clemente	1.17	F	1.10	F
With Mitigation		.86	D	.79	C
61. Talega & Vista Hermosa	San Clemente	.51	A	.44	A
62. Vera Cruz & Los Mares	San Clemente	.44	A	.24	A
63. Vera Cruz & Vista Hermosa	San Clemente	.72	C	.72	C
64. La Pata & Pico (a)	San Clemente	1.19	F	1.38	F
With At-Grade Mitigation		.74	C	.85	D
With Grade Separation as Mitigation					
La Pata & Westbound Pico		.55	A	.49	A
La Pata & Eastbound Pico		.67	B	.84	D

Table F-40 (cont) 2025 ICU SUMMARY – AIP ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
65. Vista Hermosa & Pico	San Clemente	.55	A	.76	C
66. PCH & Camino Capistrano	San Clemente	.37	A	.49	A
67. El Camino Real & Pico	San Clemente	.49	A	.57	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.31	A
74. Antonio & North River (a)	County of Orange	.99	E	1.07	F
With Mitigation		.80	C	.85	D
100. I-5 SB Ramps & Alicia	Laguna Hills	.73	C	.86	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.46	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.57	A	.74	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.90	D	.88	D
104. I-5 SB Ramps & Oso	Mission Viejo	.71	C	.82	D
105. I-5 NB Ramps & Oso	Mission Viejo	.86	D	.88	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.70	B	.80	C
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.72	C	.87	D
108. I-5 SB Ramps & Avery	Mission Viejo	.56	A	.66	B
109. I-5 NB Ramps & Avery	Mission Viejo	.61	B	.73	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.65	B	.63	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.57	A	.59	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.72	C	.84	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.59	A	.63	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.73	C	.88	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.76	C	.75	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.70	B	.85	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.38	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.25	A	.36	A
119. I-5 SB Ramps & Estrella	San Clemente	.70	B	.82	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.52	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.39	A	.42	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.63	B	.54	A
123. I-5 SB Ramps & Pico	San Clemente	.56	A	.46	A
124. I-5 NB Ramps & Pico	San Clemente	.75	C	.74	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.44	A	.61	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.21	A	.39	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.26	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.24	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.52	A	.52	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.58	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.80	C	1.11	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.67	B	.82	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.47	A	.74	C

Table F-40 (cont)
 2025 ICU SUMMARY – AIP ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
155. SR 241 NB Ramps & Antonio (a)	Rancho Santa Margarita	1.23	F	.52	A
With Mitigation		.77	C	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.82	D	1.23	F
157. SR 241 NB Ramps & Oso (a)	Rancho Santa Margarita	1.67	F	.65	B
With Mitigation		1.14	F	.65	B

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-41 2025 ICU SUMMARY – AIP ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.94	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.74	C	.83	D
3. Trabuco & Alicia	Mission Viejo	.72	C	.74	C
4. Marguerite & Alicia	Mission Viejo	.59	A	.68	B
5. Olympiad & Alicia	Mission Viejo	.81	D	.79	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.66	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.68	B	.78	C
8. Marguerite & Jeronimo (a)	Mission Viejo	.92	E	.76	C
With Mitigation		.82	D	.75	C
9. Olympiad & Jeronimo	Mission Viejo	.75	C	.53	A
10. Marguerite & La Paz	Mission Viejo	.67	B	.90	D
11. Olympiad & La Paz	Mission Viejo	.57	A	.73	C
12. Empresa & Santa Margarita (a)	Rancho Santa Margarita	1.22	F	1.01	F
With Mitigation		.71	C	.87	D
13. Empresa & Banderas	Rancho Santa Margarita	.93	E	.80	C
14. Empresa & Antonio	Rancho Santa Margarita	.62	B	.55	A
15. Banderas & Antonio	Rancho Santa Margarita	.75	C	.81	D
16. Cabot & Paseo de Valencia	Laguna Hills	.50	A	.70	B
17. Cabot & Oso	Laguna Hills	.67	B	1.04	F
18. Marguerite & Oso	Mission Viejo	.86	D	.85	D
19. Felipe & Oso (a)	Mission Viejo	.99	E	1.24	F
With Mitigation		.78	C	.83	D
20. Antonio & Oso (a)	County of Orange	1.31	F	1.38	F
With At-Grade Mitigation		.87	D	1.05	F
With Grade Separation as Mitigation					
Southbound Antonio & Oso		.60	A	.87	D
Northbound Antonio & Oso		1.07	F	1.03	F
21. Marguerite & Felipe	Mission Viejo	.78	C	1.00	E
22. Moulton & Crown Valley ¹	Laguna Niguel	.62	B	.72	C
23. Greenfield & Crown Valley	Laguna Niguel	.78	C	.88	D
24. Cabot & Crown Valley	Laguna Niguel	.69	B	.93	E
25. Forbes & Crown Valley	Laguna Niguel	.85	D	1.00	E
26. Puerta Real & Crown Valley	Mission Viejo	.82	D	.99	E
27. El Regateo & Crown Valley	Mission Viejo	.74	C	.93	E
28. Los Altos & Crown Valley	Mission Viejo	.74	C	.97	E
29. Bellogente & Crown Valley	Mission Viejo	.74	C	.72	C
30. Marguerite & Crown Valley	Mission Viejo	1.19	F	1.17	F
31. Antonio & Crown Valley (a)	County of Orange	1.58	F	1.25	F
With At-Grade Mitigation		.87	D	1.06	F
With Grade Separation as Mitigation					
Southbound Antonio & Crown Valley		.61	B	.78	C
Northbound Antonio & Crown Valley		.78	C	.68	B

Table F-41 (cont) 2025 ICU SUMMARY – AIP ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.78	C	.61	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.46	A	.43	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.42	A	.51	A
35. Camino Capistrano & Avery	Laguna Niguel	.55	A	.68	B
36. Marguerite & Avery	Mission Viejo	.72	C	.86	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.67	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.36	A	.60	A
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.86	D	.64	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.62	B	.58	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.64	B	.50	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.53	A	.58	A
43. Del Obispo & Ortega	San Juan Capistrano	.61	B	.66	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.76	C	1.02	F
45. La Novia & Ortega	San Juan Capistrano	.85	D	.84	D
46. Antonio/La Pata & Ortega (a)	County of Orange	1.33	F	2.03	F
With At-Grade Mitigation		.83	D	1.04	F
With Grade Separation as Mitigation					
Southbound Antonio/La Pata & Ortega		.71	C	1.04	F
Northbound Antonio/La Pata & Ortega		.80	C	.62	B
47. Alipaz & Del Obispo	San Juan Capistrano	.64	B	.82	D
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.82	D	1.01	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.67	B	.88	D
50. Valle & San Juan Creek	San Juan Capistrano	.71	C	.80	C
51. La Novia & San Juan Creek	San Juan Capistrano	.84	D	.80	C
52. La Pata & San Juan Creek	County of Orange	.79	C	.91	E
53. Del Obispo & Del Avion	San Juan Capistrano	.66	B	.62	B
54. Alipaz & Del Avion	San Juan Capistrano	.35	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.64	B	.76	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.42	A	.43	A
57. La Pata & Las Ramblas	County of Orange	.84	D	.87	D
58. Del Rio & Los Mares	San Clemente	.55	A	.44	A
59. La Pata & Del Rio	San Clemente	.87	D	.99	E
60. La Pata & Vista Hermosa (a)	San Clemente	1.13	F	1.30	F
With Mitigation		.82	D	.88	D
61. Talega & Vista Hermosa	San Clemente	.43	A	.43	A
62. Vera Cruz & Los Mares	San Clemente	.40	A	.27	A
63. Vera Cruz & Vista Hermosa	San Clemente	.73	C	.76	C
64. La Pata & Pico (a)	San Clemente	1.20	F	1.34	F
With At-Grade Mitigation		.72	C	.83	D
With Grade Separation as Mitigation					
La Pata & Westbound Pico		.57	A	.48	A
La Pata & Eastbound Pico		.66	B	.81	D

Table F-41 (cont)
 2025 ICU SUMMARY – AIP ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
65. Vista Hermosa & Pico	San Clemente	.52	A	.83	D
66. PCH & Camino Capistrano	San Clemente	.36	A	.51	A
67. El Camino Real & Pico	San Clemente	.50	A	.60	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.31	A
100. I-5 SB Ramps & Alicia	Laguna Hills	.73	C	.87	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.46	A	.71	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.56	A	.76	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.88	D	.84	D
104. I-5 SB Ramps & Oso	Mission Viejo	.75	C	.77	C
105. I-5 NB Ramps & Oso	Mission Viejo	.92	E	.89	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.88	D
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.71	C	.94	E
108. I-5 SB Ramps & Avery	Mission Viejo	.56	A	.65	B
109. I-5 NB Ramps & Avery	Mission Viejo	.60	A	.68	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.66	B	.73	C
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.59	A	.60	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.71	C	.87	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.59	A	.66	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.76	C	.91	E
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.69	B	.69	B
116. Camino Capistrano & Stonehill	San Juan Capistrano	.72	C	.84	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.36	A	.43	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.29	A	.41	A
119. I-5 SB Ramps & Estrella	San Clemente	.73	C	.81	D
120. I-5 NB Ramps & Estrella	San Clemente	.39	A	.51	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.37	A	.41	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.65	B	.59	A
123. I-5 SB Ramps & Pico	San Clemente	.59	A	.50	A
124. I-5 NB Ramps & Pico	San Clemente	.77	C	.73	C
125. I-5 SB Ramp & El Camino Real	San Clemente	.47	A	.60	A
126. I-5 NB Ramps & El Camino Real	San Clemente	.20	A	.38	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.26	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.24	A	.34	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.51	A	.55	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.56	A	.40	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.77	C	1.11	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.64	B	.82	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.47	A	.70	B

Table F-41 (cont)
 2025 ICU SUMMARY – AIP ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.26	F	.51	A
156. SR 241 SB Ramps & Oso (a)	Rancho Santa Margarita	.96	E	.79	C
With Mitigation		.66	B	.76	C
157. SR 241 NB Ramps & Oso (a)	Rancho Santa Margarita	2.01	F	.47	A
With Mitigation		1.04	F	.37	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-42
2025 ICU SUMMARY – I-5 ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.92	E	.96	E
2. Jeronimo & Alicia	Mission Viejo	.85	D	.87	D
3. Trabuco & Alicia	Mission Viejo	.82	D	.95	E
4. Marguerite & Alicia	Mission Viejo	.65	B	.67	B
5. Olympiad & Alicia	Mission Viejo	.64	B	.63	B
6. Santa Margarita & Alicia	Rancho Santa Margarita	.66	B	.85	D
7. Marguerite & Trabuco	Mission Viejo	.77	C	.83	D
8. Marguerite & Jeronimo	Mission Viejo	.87	D	.71	C
9. Olympiad & Jeronimo	Mission Viejo	.50	A	.42	A
10. Marguerite & La Paz	Mission Viejo	.64	B	.85	D
11. Olympiad & La Paz	Mission Viejo	.54	A	.54	A
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.15	F	.99	E
13. Empresa & Banderas	Rancho Santa Margarita	.92	E	.82	D
14. Empresa & Antonio	Rancho Santa Margarita	.62	B	.51	A
15. Banderas & Antonio	Rancho Santa Margarita	.73	C	.79	C
16. Cabot & Paseo de Valencia	Laguna Hills	.45	A	.59	A
17. Cabot & Oso	Laguna Hills	.65	B	.96	E
18. Marguerite & Oso	Mission Viejo	.83	D	.78	C
19. Felipe & Oso	Mission Viejo	.90	D	1.06	F
20. Antonio & Oso	County of Orange	1.30	F	1.12	F
21. Marguerite & Felipe	Mission Viejo	.74	C	.88	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.69	B	.79	C
23. Greenfield & Crown Valley	Laguna Niguel	.75	C	.84	D
24. Cabot & Crown Valley	Laguna Niguel	.72	C	.93	E
25. Forbes & Crown Valley	Laguna Niguel	.89	D	1.04	F
26. Puerta Real & Crown Valley	Mission Viejo	.83	D	1.00	E
27. El Regateo & Crown Valley	Mission Viejo	.73	C	.90	D
28. Los Altos & Crown Valley	Mission Viejo	.73	C	.95	E
29. Bellogente & Crown Valley	Mission Viejo	.73	C	.70	B
30. Marguerite & Crown Valley (a)	Mission Viejo	1.16	F	1.09	F
With Mitigation		.99	E	1.01	F
31. Antonio & Crown Valley	County of Orange	.79	C	1.03	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	1.05	F	.80	C
33. Cabot & Paseo de Colinas	Laguna Niguel	.43	A	.51	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.52	A	.65	B
35. Camino Capistrano & Avery	Laguna Niguel	.47	A	.59	A
36. Marguerite & Avery	Mission Viejo	.75	C	.88	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.83	D	.80	C
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.82	D	.79	C
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.56	A	.55	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.45	A	.34	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.68	B	.73	C
43. Del Obispo & Ortega	San Juan Capistrano	.66	B	.75	C

Table F-42 (cont) 2025 ICU SUMMARY – I-5 ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
44. Rancho Viejo & Ortega (a)	San Juan Capistrano	.77	C	.96	E
With Mitigation		.77	C	.77	C
45. La Novia & Ortega	San Juan Capistrano	.79	C	.95	E
46. Antonio/La Pata & Ortega (a)	County of Orange	1.73	F	1.43	F
With Mitigation		.69	B	.89	D
47. Alipaz & Del Obispo	San Juan Capistrano	.72	C	.70	B
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.98	E	1.09	F
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.60	A	.69	B
50. Valle & San Juan Creek	San Juan Capistrano	.92	E	.86	D
51. La Novia & San Juan Creek	San Juan Capistrano	1.12	F	1.01	F
53. Del Obispo & Del Avion	San Juan Capistrano	.66	B	.62	B
54. Alipaz & Del Avion	San Juan Capistrano	.41	A	.36	A
55. Del Obispo & Stonehill	Dana Point	.93	E	.95	E
58. Del Rio & Los Mares	San Clemente	.15	A	.14	A
60. La Pata & Vista Hermosa	San Clemente	.93	E	.74	C
61. Talega & Vista Hermosa	San Clemente	.55	A	.63	B
62. Vera Cruz & Los Mares	San Clemente	.41	A	.30	A
63. Vera Cruz & Vista Hermosa	San Clemente	.97	E	1.05	F
64. La Pata & Pico	San Clemente	.88	D	.83	D
65. Vista Hermosa & Pico	San Clemente	.66	B	.76	C
66. PCH & Camino Capistrano	San Clemente	.62	B	.90	D
67. El Camino Real & Pico	San Clemente	.78	C	.93	E
68. El Camino Real & Cristianitos	San Clemente	.17	A	.33	A
74. Antonio & North River	County of Orange	.74	C	.78	C
100. I-5 SB Ramps & Alicia	Laguna Hills	.78	C	.88	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.49	A	.74	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.67	B	.87	D
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.78	C	.81	D
104. I-5 SB Ramps & Oso	Mission Viejo	.69	B	.89	D
105. I-5 NB Ramps & Oso (a)	Mission Viejo	.76	C	.94	E
With Mitigation		.64	B	.82	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.80	C
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.80	C	.94	E
108. I-5 SB Ramps & Avery	Mission Viejo	.65	B	.66	B
109. I-5 NB Ramps & Avery	Mission Viejo	.74	C	.68	B
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.56	A	.63	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.47	A	.52	A
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.77	C	.87	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.79	C	.86	D
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.82	D	.89	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.89	D	.91	E
116. Camino Capistrano & Stonehill (a)	San Juan Capistrano	1.18	F	1.45	F
With Mitigation		.89	D	.88	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.32	A	.33	A

Table F-42 (cont)
 2025 ICU SUMMARY – I-5 ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.31	A	.34	A
119. I-5 SB Ramps & Estrella	San Clemente	.76	C	.93	E
120. I-5 NB Ramps & Estrella	San Clemente	.40	A	.61	B
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.56	A	.67	B
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.63	B	.62	B
123. I-5 SB Ramps & Pico	San Clemente	.72	C	.61	B
124. I-5 NB Ramps & Pico	San Clemente	.71	C	.68	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.46	A	.63	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.20	A	.39	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.28	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.25	A	.37	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.50	A	.52	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.59	A	.48	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.10	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	1.93	F	.83	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.42	A	.66	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.41	F	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.86	D	1.26	F
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	1.41	F	.72	C

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-43
2025 ICU SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.93	E	.93	E
2. Jeronimo & Alicia	Mission Viejo	.69	B	.81	D
3. Trabuco & Alicia	Mission Viejo	.68	B	.72	C
4. Marguerite & Alicia	Mission Viejo	.59	A	.66	B
5. Olympiad & Alicia	Mission Viejo	.83	D	.73	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.67	B	.84	D
7. Marguerite & Trabuco	Mission Viejo	.64	B	.73	C
8. Marguerite & Jeronimo	Mission Viejo	.78	C	.68	B
9. Olympiad & Jeronimo	Mission Viejo	.59	A	.48	A
10. Marguerite & La Paz	Mission Viejo	.62	B	.83	D
11. Olympiad & La Paz	Mission Viejo	.54	A	.64	B
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.14	F	.99	E
13. Empresa & Banderas	Rancho Santa Margarita	.88	D	.76	C
14. Empresa & Antonio	Rancho Santa Margarita	.61	B	.50	A
15. Banderas & Antonio	Rancho Santa Margarita	.74	C	.78	C
16. Cabot & Paseo de Valencia	Laguna Hills	.45	A	.61	B
17. Cabot & Oso	Laguna Hills	.66	B	.93	E
18. Marguerite & Oso	Mission Viejo	.81	D	.74	C
19. Felipe & Oso	Mission Viejo	.88	D	1.07	F
20. Antonio & Oso	County of Orange	1.30	F	1.13	F
21. Marguerite & Felipe	Mission Viejo	.72	C	.90	D
22. Moulton & Crown Valley ¹	Laguna Niguel	.63	B	.70	B
23. Greenfield & Crown Valley	Laguna Niguel	.71	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.67	B	.90	D
25. Forbes & Crown Valley	Laguna Niguel	.85	D	.97	E
26. Puerta Real & Crown Valley	Mission Viejo	.82	D	.96	E
27. El Regateo & Crown Valley	Mission Viejo	.72	C	.87	D
28. Los Altos & Crown Valley	Mission Viejo	.72	C	.93	E
29. Bellogente & Crown Valley	Mission Viejo	.70	B	.67	B
30. Marguerite & Crown Valley	Mission Viejo	1.15	F	1.04	F
31. Antonio & Crown Valley (a)	County of Orange	.78	C	1.03	F
With Mitigation		.65	B	.84	D
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.76	C	.60	A
33. Cabot & Paseo de Colinas	Laguna Niguel	.41	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.45	A	.50	A
35. Camino Capistrano & Avery	Laguna Niguel	.62	B	.69	B
36. Marguerite & Avery	Mission Viejo	.69	B	.86	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.79	C	.70	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.38	A	.63	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.78	C	.62	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.58	A	.55	A
41. Camino Capistrano & Oso Road	San Juan Capistrano	.57	A	.45	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.48	A	.58	A
43. Del Obispo & Ortega	San Juan Capistrano	.58	A	.65	B

Table F-43 (cont)
2025 ICU SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
44. Rancho Viejo & Ortega	San Juan Capistrano	.74	C	.97	E
45. La Novia & Ortega	San Juan Capistrano	.77	C	.75	C
46. Antonio/La Pata & Ortega (a)	County of Orange	1.24	F	1.00	E
With Mitigation		.89	D	.89	D
47. Alipaz & Del Obispo	San Juan Capistrano	.69	B	.79	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.83	D	.96	E
49. Camino Capistrano & San Juan Creek	San Juan Capistrano	.61	B	.87	D
50. Valle & San Juan Creek	San Juan Capistrano	.65	B	.79	C
51. La Novia & San Juan Creek	San Juan Capistrano	.78	C	.73	C
52. La Pata & San Juan Creek	County of Orange	.74	C	.87	D
53. Del Obispo & Del Avion	San Juan Capistrano	.61	B	.57	A
54. Alipaz & Del Avion	San Juan Capistrano	.35	A	.29	A
55. Del Obispo & Stonehill	Dana Point	.65	B	.74	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.26	A	.37	A
57. La Pata & Las Ramblas	County of Orange	.64	B	.51	A
58. Del Rio & Los Mares	San Clemente	.45	A	.44	A
59. La Pata & Del Rio	San Clemente	.79	C	.88	D
60. La Pata & Vista Hermosa	San Clemente	1.01	F	.85	D
61. Talega & Vista Hermosa	San Clemente	.53	A	.46	A
62. Vera Cruz & Los Mares	San Clemente	.44	A	.22	A
63. Vera Cruz & Vista Hermosa	San Clemente	.66	B	.69	B
64. La Pata & Pico	San Clemente	.84	D	.99	E
65. Vista Hermosa & Pico	San Clemente	.57	A	.72	C
66. PCH & Camino Capistrano	San Clemente	.39	A	.49	A
67. El Camino Real & Pico	San Clemente	.52	A	.54	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.33	A
74. Antonio & North River	County of Orange	.87	D	.91	E
100. I-5 SB Ramps & Alicia	Laguna Hills	.77	C	.88	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.48	A	.72	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.54	A	.75	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.77	C	.78	C
104. I-5 SB Ramps & Oso	Mission Viejo	.68	B	.87	D
105. I-5 NB Ramps & Oso	Mission Viejo	.74	C	.89	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.74	C	.80	C
107. I-5 NB Ramps & Crown Valley ¹	Mission Viejo	.76	C	.88	D
108. I-5 SB Ramps & Avery	Mission Viejo	.60	A	.74	C
109. I-5 NB Ramps & Avery	Mission Viejo	.70	B	.73	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.62	B	.66	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.51	A	.61	B
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.72	C	.83	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.62	B	.63	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.71	C	.87	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.79	C	.76	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.67	B	.86	D

Table F-43 (cont)
 2025 ICU SUMMARY – I-5 ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.39	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.26	A	.39	A
119. I-5 SB Ramps & Estrella	San Clemente	.71	C	.86	D
120. I-5 NB Ramps & Estrella	San Clemente	.36	A	.56	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.45	A	.55	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.61	B	.54	A
123. I-5 SB Ramps & Pico	San Clemente	.62	B	.48	A
124. I-5 NB Ramps & Pico	San Clemente	.64	B	.61	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.47	A	.63	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.22	A	.40	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.28	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.25	A	.36	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.47	A	.50	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.56	A	.39	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.79	C	1.10	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.67	B	.82	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.43	A	.66	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.20	F	.52	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.86	D	1.22	F
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	1.40	F	.71	C

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-44
2025 ICU SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1. Muirlands & Alicia	Mission Viejo	.95	E	.94	E
2. Jeronimo & Alicia	Mission Viejo	.75	C	.84	D
3. Trabuco & Alicia	Mission Viejo	.72	C	.73	C
4. Marguerite & Alicia	Mission Viejo	.60	A	.69	B
5. Olympiad & Alicia	Mission Viejo	.84	D	.75	C
6. Santa Margarita & Alicia	Rancho Santa Margarita	.66	B	.84	D
7. Marguerite & Trabuco	Mission Viejo	.65	B	.74	C
8. Marguerite & Jeronimo	Mission Viejo	.79	C	.74	C
9. Olympiad & Jeronimo	Mission Viejo	.66	B	.51	A
10. Marguerite & La Paz	Mission Viejo	.64	B	.87	D
11. Olympiad & La Paz	Mission Viejo	.55	A	.71	C
12. Empresa & Santa Margarita	Rancho Santa Margarita	1.15	F	.98	E
13. Empresa & Banderas	Rancho Santa Margarita	.88	D	.74	C
14. Empresa & Antonio	Rancho Santa Margarita	.59	A	.48	A
15. Banderas & Antonio	Rancho Santa Margarita	.73	C	.77	C
16. Cabot & Paseo de Valencia	Laguna Hills	.46	A	.66	B
17. Cabot & Oso	Laguna Hills	.68	B	1.08	F
18. Marguerite & Oso	Mission Viejo	.84	D	.81	D
19. Felipe & Oso (a)	Mission Viejo	.90	D	1.27	F
With Mitigation		.80	C	.84	D
20. Antonio & Oso	County of Orange	1.18	F	1.08	F
21. Marguerite & Felipe	Mission Viejo	.79	C	1.06	F
22. Moulton & Crown Valley ¹	Laguna Niguel	.62	B	.74	C
23. Greenfield & Crown Valley	Laguna Niguel	.74	C	.83	D
24. Cabot & Crown Valley	Laguna Niguel	.67	B	.90	D
25. Forbes & Crown Valley	Laguna Niguel	.85	D	.98	E
26. Puerta Real & Crown Valley (a)	Mission Viejo	.86	D	1.03	F
With Mitigation		.84	D	.95	E
27. El Regateo & Crown Valley	Mission Viejo	.75	C	.99	E
28. Los Altos & Crown Valley (a)	Mission Viejo	.76	C	1.01	F
With Mitigation		.75	C	.94	E
29. Bellogente & Crown Valley	Mission Viejo	.75	C	.77	C
30. Marguerite & Crown Valley	Mission Viejo	1.21	F	1.20	F
31. Antonio & Crown Valley	County of Orange	1.31	F	1.17	F
32. Golden Lantern & Paseo de Colinas	Laguna Niguel	.76	C	.62	B
33. Cabot & Paseo de Colinas	Laguna Niguel	.44	A	.44	A
34. Cm Capistrano & Paseo de Colinas	Laguna Niguel	.45	A	.52	A
35. Camino Capistrano & Avery	Laguna Niguel	.62	B	.71	C
36. Marguerite & Avery (a)	Mission Viejo	.73	C	.93	E
With Mitigation		.70	B	.85	D
37. Golden Lantern & Marina Hills	Laguna Niguel	.80	C	.69	B
38. Camino Capistrano & Los Padres	San Juan Capistrano	.40	A	.61	B
39. Camino Capistrano & Junipero Serra	San Juan Capistrano	.81	D	.63	B
40. Rancho Viejo & Junipero Serra	San Juan Capistrano	.60	A	.57	A

Table F-44 (cont) 2025 ICU SUMMARY – I-5 ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)					
Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
41. Camino Capistrano & Oso Road	San Juan Capistrano	.58	A	.46	A
42. Camino Capistrano & Ortega	San Juan Capistrano	.49	A	.52	A
43. Del Obispo & Ortega	San Juan Capistrano	.58	A	.67	B
44. Rancho Viejo & Ortega	San Juan Capistrano	.75	C	1.00	E
45. La Novia & Ortega	San Juan Capistrano	.84	D	.85	D
46. Antonio/La Pata & Ortega (a)	County of Orange	1.14	F	1.97	F
With Mitigation		1.14	F	1.57	F
47. Alipaz & Del Obispo	San Juan Capistrano	.66	B	.76	C
48. Camino Capistrano & Del Obispo	San Juan Capistrano	.85	D	.97	E
49. Camino Capistrano & San Juan Creek (a)	San Juan Capistrano	.64	B	.97	E
With Mitigation		.64	B	.82	D
50. Valle & San Juan Creek	San Juan Capistrano	.81	D	.85	D
51. La Novia & San Juan Creek	San Juan Capistrano	.89	D	.78	C
52. La Pata & San Juan Creek	County of Orange	.83	D	1.15	F
53. Del Obispo & Del Avion	San Juan Capistrano	.65	B	.58	A
54. Alipaz & Del Avion	San Juan Capistrano	.35	A	.31	A
55. Del Obispo & Stonehill	Dana Point	.65	B	.76	C
56. Los Mares & Las Ramblas	San Juan Capistrano	.40	A	.40	A
57. La Pata & Las Ramblas	County of Orange	.79	C	.52	A
58. Del Rio & Los Mares	San Clemente	.53	A	.42	A
59. La Pata & Del Rio	San Clemente	.86	D	.87	D
60. La Pata & Vista Hermosa	San Clemente	1.01	F	.98	E
61. Talega & Vista Hermosa	San Clemente	.46	A	.43	A
62. Vera Cruz & Los Mares	San Clemente	.39	A	.26	A
63. Vera Cruz & Vista Hermosa	San Clemente	.68	B	.76	C
64. La Pata & Pico	San Clemente	.81	D	1.02	F
65. Vista Hermosa & Pico	San Clemente	.52	A	.80	C
66. PCH & Camino Capistrano	San Clemente	.37	A	.50	A
67. El Camino Real & Pico	San Clemente	.47	A	.57	A
68. El Camino Real & Cristianitos	San Clemente	.17	A	.33	A
100. I-5 SB Ramps & Alicia	Laguna Hills	.78	C	.89	D
101. I-5 NB Ramps & Alicia	Mission Viejo	.49	A	.73	C
102. I-5 SB Ramps/Cabot & La Paz	Laguna Hills	.54	A	.78	C
103. I-5 NB Ramps/Muirlands & La Paz	Mission Viejo	.73	C	.81	D
104. I-5 SB Ramps & Oso	Mission Viejo	.65	B	.77	C
105. I-5 NB Ramps & Oso	Mission Viejo	.79	C	.90	D
106. I-5 SB Ramps & Crown Valley ¹	Mission Viejo	.79	C	.97	E
107. I-5 NB Ramps & Crown Valley ¹ (a)	Mission Viejo	.79	C	1.04	F
With Mitigation		.71	C	.83	D
108. I-5 SB Ramps & Avery	Mission Viejo	.62	B	.69	B
109. I-5 NB Ramps & Avery	Mission Viejo	.73	C	.73	C
110. I-5 SB Ramps & Junipero Serra	San Juan Capistrano	.63	B	.70	B
111. I-5 NB Ramps & Junipero Serra	San Juan Capistrano	.55	A	.61	B

Table F-44 (cont)
 2025 ICU SUMMARY – I-5 ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
112. I-5 SB Ramps & Ortega ¹	San Juan Capistrano	.71	C	.85	D
113. I-5 NB Ramps & Ortega ¹	San Juan Capistrano	.62	B	.67	B
114. Camino Capistrano & I-5 SB Ramps	San Juan Capistrano	.73	C	.88	D
115. Valle & La Novia/I-5 NB Ramps	San Juan Capistrano	.78	C	.74	C
116. Camino Capistrano & Stonehill	San Juan Capistrano	.66	B	.86	D
117. I-5 SB Ramps & Las Ramblas	Dana Point	.30	A	.43	A
118. I-5 NB Ramps & Las Ramblas	San Juan Capistrano	.29	A	.42	A
119. I-5 SB Ramps & Estrella	San Clemente	.73	C	.83	D
120. I-5 NB Ramps & Estrella	San Clemente	.38	A	.54	A
121. I-5 SB Ramps & Vista Hermosa	San Clemente	.44	A	.55	A
122. I-5 NB Ramps & Vista Hermosa	San Clemente	.64	B	.57	A
123. I-5 SB Ramps & Pico	San Clemente	.65	B	.50	A
124. I-5 NB Ramps & Pico	San Clemente	.67	B	.61	B
125. I-5 SB Ramp & El Camino Real	San Clemente	.49	A	.64	B
126. I-5 NB Ramps & El Camino Real	San Clemente	.20	A	.39	A
127. I-5 SB Ramps & Cristianitos	San Clemente	.21	A	.28	A
128. I-5 NB Ramps & Cristianitos	San Clemente	.25	A	.37	A
129. I-5 SB Ramps & Basilone	San Diego County	.30	A	.44	A
130. I-5 NB Ramps & Basilone	San Diego County	.24	A	.39	A
150. Greenfield & SR 73 SB Ramps	Laguna Niguel	.48	A	.50	A
151. Greenfield & SR 73 NB Ramps	Laguna Niguel	.56	A	.40	A
152. SR 241 SB Ramps & Santa Margarita	Rancho Santa Margarita	.77	C	1.10	F
153. SR 241 NB Ramps & Santa Margarita	Rancho Santa Margarita	.65	B	.81	D
154. SR 241 SB Ramps & Antonio	Rancho Santa Margarita	.43	A	.68	B
155. SR 241 NB Ramps & Antonio	Rancho Santa Margarita	1.28	F	.51	A
156. SR 241 SB Ramps & Oso	Rancho Santa Margarita	.75	C	.58	A
157. SR 241 NB Ramps & Oso	Rancho Santa Margarita	1.57	F	.38	A

¹ Congestion Management Program (CMP) intersection location.

Abbreviations: ICU – intersection capacity utilization
 LOS – level of service
 NB – northbound
 SB – southbound

(a) A direct adverse impact occurs at this location compared to the No Action Alternative. Bold italicized entries denote the LOS for the time periods (AM and/or PM peak hours) during which the impact occurs and the LOS after mitigation.

Table F-45 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)					
Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,530	8,670	64	77	319.3
2. Jeronimo & Alicia	5,230	6,620	51	55	175.2
3. Trabuco & Alicia	4,860	5,910	51	69	182.1
4. Marguerite & Alicia	4,000	4,100	15	16	34.9
5. Olympiad & Alicia	3,570	3,790	14	12	26.5
6. Santa Margarita & Alicia	4,920	6,320	14	44	96.4
7. Marguerite & Trabuco	3,010	3,500	35	46	74.0
8. Marguerite & Jeronimo	4,230	4,240	57	23	94.1
9. Olympiad & Jeronimo	1,680	1,840	6	4	4.8
10. Marguerite & La Paz	4,480	5,750	14	64	119.6
11. Olympiad & La Paz	2,130	2,490	9	20	19.2
12. Empresa & Santa Margarita	6,690	6,140	134	80	385.5
13. Empresa & Banderas	3,590	3,110	64	37	95.8
14. Empresa & Antonio	4,070	4,060	12	6	20.3
15. Banderas & Antonio	5,490	4,680	24	37	84.7
16. Cabot & Paseo de Valencia	1,820	2,300	6	21	16.5
17. Cabot & Oso	5,400	6,820	20	83	187.2
18. Marguerite & Oso	7,340	7,570	40	37	159.4
19. Felipe & Oso	6,580	7,260	53	130	359.0
20. Antonio & Oso	10,810	10,010	200	127	953.7
21. Marguerite & Felipe	3,520	4,020	23	48	76.1
22. Moulton & Crown Valley	6,070	6,990	21	39	111.1
23. Greenfield & Crown Valley	4,800	6,380	35	42	121.1
24. Cabot & Crown Valley	5,940	7,590	27	77	206.9
25. Forbes & Crown Valley	5,880	7,240	53	91	269.6
26. Puerta Real & Crown Valley	7,070	9,040	39	72	257.4
27. El Regateo & Crown Valley	6,360	7,660	23	51	149.2
28. Los Altos & Crown Valley	6,210	7,060	23	64	165.2
29. Bellogente & Crown Valley	5,980	6,630	23	19	73.2
30. Marguerite & Crown Valley	9,170	10,070	123	104	604.2
31. Antonio & Crown Valley	6,280	7,220	40	88	246.3
32. Golden Lantern & Paseo de Colinas	5,340	4,860	107	46	220.8
33. Cabot & Paseo de Colinas	2,290	2,450	5	6	7.3
34. Cm Capistrano & Paseo de Colinas	1,710	2,730	4	15	13.3
35. Camino Capistrano & Avery	1,950	2,870	3	8	8.0
36. Marguerite & Avery	3,750	4,600	37	60	115.2
37. Golden Lantern & Marina Hills	4,700	4,580	53	51	134.1
39. Camino Capistrano & Junipero Serra	2,460	2,910	67	60	94.3
40. Rancho Viejo & Junipero Serra	2,920	2,750	12	9	16.6
41. Camino Capistrano & Oso Road	2,120	1,770	6	3	5.0
42. Camino Capistrano & Ortega	2,260	2,370	42	42	54.0
43. Del Obispo & Ortega	3,900	4,250	18	23	46.7

Table F-45 (cont)
2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,990	5,600	32	64	152.8
45. La Novia & Ortega	4,930	4,620	33	72	137.6
46. Antonio/La Pata & Ortega	3,890	4,150	200	200	446.7
47. Alipaz & Del Obispo	3,210	3,620	19	18	35.0
48. Camino Capistrano & Del Obispo	5,900	5,590	110	130	382.1
49. Camino Capistrano & San Juan Creek	3,930	4,650	16	35	62.7
50. Valle & San Juan Creek	2,990	3,300	62	44	91.8
51. La Novia & San Juan Creek	3,170	2,910	130	104	198.5
53. Del Obispo & Del Avion	3,070	2,950	20	12	26.9
54. Alipaz & Del Avion	1,010	830	3	3	1.5
55. Del Obispo & Stonehill	3,210	4,340	62	69	138.5
60. La Pata & Vista Hermosa	4,480	4,190	62	30	112.1
61. Talega & Vista Hermosa	2,610	2,640	10	14	17.5
62. Vera Cruz & Los Mares	1,750	1,510	12	5	7.9
63. Vera Cruz & Vista Hermosa	5,050	5,000	91	149	334.6
64. La Pata & Pico	5,860	5,950	39	33	118.0
65. Vista Hermosa & Pico	4,000	4,380	12	25	43.8
66. PCH & Camino Capistrano	2,200	3,310	25	77	86.1
67. El Camino Real & Pico	2,860	3,820	28	64	90.2
68. El Camino Real & Cristianitos	480	750	2	2	0.7
100. I-5 SB Ramps & Alicia	5,870	6,620	24	46	123.7
101. I-5 NB Ramps & Alicia	6,480	6,490	4	24	50.5
102. I-5 SB Ramps/Cabot & La Paz	3,690	4,590	19	42	73.0
103. I-5 NB Ramps/Muirlands & La Paz	5,580	5,680	53	55	168.9
104. I-5 SB Ramps & Oso	5,390	6,700	18	35	92.1
105. I-5 NB Ramps & Oso	6,390	6,670	32	55	158.7
106. I-5 SB Ramps & Crown Valley	6,840	8,540	23	72	214.5
107. I-5 NB Ramps & Crown Valley	7,860	9,140	27	60	211.3
108. I-5 SB Ramps & Avery	2,710	3,500	25	64	81.0
109. I-5 NB Ramps & Avery	3,070	3,620	62	97	150.4
110. I-5 SB Ramps & Junipero Serra	2,760	3,340	11	24	30.7
111. I-5 NB Ramps & Junipero Serra	2,910	2,990	5	9	11.5
112. I-5 SB Ramps & Ortega	5,340	5,610	77	83	243.6
113. I-5 NB Ramps & Ortega	5,970	5,800	117	77	318.1
114. Camino Capistrano & I-5 SB Ramps	3,930	4,550	48	55	121.9
115. Valle & La Novia/I-5 NB Ramps	2,420	2,390	64	75	92.8
116. Camino Capistrano & Stonehill	4,600	5,950	145	200	515.8
117. I-5 SB Ramps & Las Ramblas	2,620	3,290	2	2	3.3
118. I-5 NB Ramps & Las Ramblas	1,820	1,740	2	2	2.0
119. I-5 SB Ramps & Estrella	3,170	3,780	35	67	101.2
120. I-5 NB Ramps & Estrella	3,860	4,450	3	11	16.8
121. I-5 SB Ramps & Vista Hermosa	2,240	3,230	5	12	13.9

Table F-45 (cont)
 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,910	4,230	9	9	20.4
123. I-5 SB Ramps & Pico	3,720	4,910	64	153	274.8
124. I-5 NB Ramps & Pico	5,500	6,240	64	44	174.0
125. I-5 SB Ramp & El Camino Real	1,600	2,580	4	13	11.1
126. I-5 NB Ramps & El Camino Real	1,490	1,980	3	3	2.9
127. I-5 SB Ramps & Cristianitos	470	570	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	750	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,430	2,210	7	6	8.4
151. Greenfield & SR 73 NB Ramps	1,600	1,120	10	4	5.7
152. SR 241 SB Ramps & Santa Margarita	5,270	6,150	35	113	244.3
153. SR 241 NB Ramps & Santa Margarita	7,330	6,400	200	39	476.6
154. SR 241 SB Ramps & Antonio	3,290	4,400	4	15	22.0
155. SR 241 NB Ramps & Antonio	4,690	3,950	200	6	267.1
Total	407,580	451,580			13,195.7

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,640	8,940	75	91	385.2
2. Jeronimo & Alicia	5,390	6,750	57	60	197.8
3. Trabuco & Alicia	5,110	6,100	62	64	196.5
4. Marguerite & Alicia	4,180	4,300	15	21	42.5
5. Olympiad & Alicia	3,780	3,990	14	13	29.1
6. Santa Margarita & Alicia	4,990	6,380	21	51	119.5
7. Marguerite & Trabuco	3,120	3,570	46	51	90.4
8. Marguerite & Jeronimo	4,370	4,390	67	27	114.3
9. Olympiad & Jeronimo	1,700	1,870	6	4	4.9
10. Marguerite & La Paz	4,600	5,960	16	72	139.6
11. Olympiad & La Paz	2,140	2,550	10	21	20.8
12. Empresa & Santa Margarita	6,720	6,100	117	77	348.9
13. Empresa & Banderas	3,500	2,940	64	25	82.6
14. Empresa & Antonio	4,020	4,040	10	7	19.0
15. Banderas & Antonio	5,220	4,500	25	37	82.5
16. Cabot & Paseo de Valencia	1,840	2,340	6	20	16.1
17. Cabot & Oso	5,600	7,080	23	97	226.5
18. Marguerite & Oso	7,600	7,950	44	42	185.6
19. Felipe & Oso	7,090	8,130	97	194	629.2
20. Antonio & Oso	11,440	11,170	200	200	1,256.1
21. Marguerite & Felipe	3,810	4,560	33	88	146.4
22. Moulton & Crown Valley	6,240	7,120	24	44	128.6
23. Greenfield & Crown Valley	4,930	6,560	37	57	154.5
24. Cabot & Crown Valley	6,110	7,830	27	91	243.8
25. Forbes & Crown Valley	5,850	7,310	51	94	273.7
26. Puerta Real & Crown Valley	7,310	9,670	44	88	325.7
27. El Regateo & Crown Valley	6,650	8,310	28	67	206.4
28. Los Altos & Crown Valley	6,500	7,740	30	77	219.7
29. Bellogente & Crown Valley	6,300	7,300	28	27	103.8
30. Marguerite & Crown Valley	9,870	11,100	123	149	796.6
31. Antonio & Crown Valley	7,090	8,360	67	138	452.4
32. Golden Lantern & Paseo de Colinas	5,630	4,970	123	46	255.9
33. Cabot & Paseo de Colinas	2,390	2,480	7	6	8.8
34. Cm Capistrano & Paseo de Colinas	1,800	2,740	5	15	13.9
35. Camino Capistrano & Avery	2,020	2,910	3	8	8.2
36. Marguerite & Avery	4,130	5,030	57	69	161.8
37. Golden Lantern & Marina Hills	5,070	4,930	64	62	175.0
39. Camino Capistrano & Junipero Serra	2,670	3,190	83	83	135.1
40. Rancho Viejo & Junipero Serra	3,360	3,380	23	23	43.1
41. Camino Capistrano & Oso Road	2,330	2,040	7	4	6.8
42. Camino Capistrano & Ortega	2,410	2,630	57	44	70.3
43. Del Obispo & Ortega	3,880	4,290	13	30	49.8

Table F-46 (cont)
 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	7,110	6,490	64	120	342.7
45. La Novia & Ortega	6,470	6,210	130	200	578.6
46. Antonio/La Pata & Ortega	7,180	8,380	200	200	864.4
47. Alipaz & Del Obispo	3,170	3,750	21	21	40.4
48. Camino Capistrano & Del Obispo	6,020	5,870	113	130	400.9
49. Camino Capistrano & San Juan Creek	4,280	5,080	28	55	110.9
50. Valle & San Juan Creek	3,180	3,380	83	75	143.7
51. La Novia & San Juan Creek	3,340	3,300	181	145	300.8
53. Del Obispo & Del Avion	3,200	3,150	32	19	45.1
54. Alipaz & Del Avion	1,070	880	3	3	1.6
55. Del Obispo & Stonehill	3,320	4,490	67	83	165.3
60. La Pata & Vista Hermosa	4,350	4,230	75	40	137.6
61. Talega & Vista Hermosa	2,470	2,470	7	7	9.6
62. Vera Cruz & Los Mares	1,450	1,310	6	3	3.5
63. Vera Cruz & Vista Hermosa	5,130	5,030	100	145	345.1
64. La Pata & Pico	6,220	6,530	40	46	152.6
65. Vista Hermosa & Pico	4,360	4,920	7	33	53.6
66. PCH & Camino Capistrano	2,110	3,080	18	55	57.6
67. El Camino Real & Pico	2,850	3,860	32	88	119.7
68. El Camino Real & Cristianitos	480	730	2	2	0.7
100. I-5 SB Ramps & Alicia	6,030	6,620	25	46	126.5
101. I-5 NB Ramps & Alicia	6,640	6,540	5	27	58.3
102. I-5 SB Ramps/Cabot & La Paz	3,630	4,720	18	62	99.4
103. I-5 NB Ramps/Muirlands & La Paz	5,490	5,920	46	57	163.9
104. I-5 SB Ramps & Oso	5,740	7,080	19	39	107.0
105. I-5 NB Ramps & Oso	6,760	6,990	39	86	240.2
106. I-5 SB Ramps & Crown Valley	7,230	8,830	42	91	307.6
107. I-5 NB Ramps & Crown Valley	8,090	9,660	35	77	285.3
108. I-5 SB Ramps & Avery	2,860	3,670	32	75	101.9
109. I-5 NB Ramps & Avery	3,280	3,820	91	100	189.0
110. I-5 SB Ramps & Junipero Serra	2,980	3,990	15	53	71.2
111. I-5 NB Ramps & Junipero Serra	3,460	3,510	9	12	20.4
112. I-5 SB Ramps & Ortega	5,770	5,910	149	130	452.2
113. I-5 NB Ramps & Ortega	6,580	6,460	141	110	455.1
114. Camino Capistrano & I-5 SB Ramps	4,360	5,120	72	94	220.9
115. Valle & La Novia/I-5 NB Ramps	2,140	2,350	51	42	57.7
116. Camino Capistrano & Stonehill	4,800	6,240	164	200	565.3
117. I-5 SB Ramps & Las Ramblas	2,750	3,650	3	3	5.3
118. I-5 NB Ramps & Las Ramblas	1,920	1,870	2	2	2.1
119. I-5 SB Ramps & Estrella	2,960	3,800	25	75	99.7
120. I-5 NB Ramps & Estrella	3,810	5,640	3	10	18.8
121. I-5 SB Ramps & Vista Hermosa	2,550	3,100	9	9	14.1

Table F-46 (cont)
 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	4,210	4,270	20	7	31.7
123. I-5 SB Ramps & Pico	4,000	5,030	83	145	294.8
124. I-5 NB Ramps & Pico	5,770	6,600	80	51	221.7
125. I-5 SB Ramp & El Camino Real	1,690	2,460	4	12	10.1
126. I-5 NB Ramps & El Camino Real	1,560	1,960	3	3	2.9
127. I-5 SB Ramps & Cristianitos	470	550	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	730	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,490	2,330	7	8	10.0
151. Greenfield & SR 73 NB Ramps	1,670	1,130	12	4	6.8
152. SR 241 SB Ramps & Santa Margarita	5,100	6,150	33	127	263.7
153. SR 241 NB Ramps & Santa Margarita	7,390	6,440	200	42	485.7
154. SR 241 SB Ramps & Antonio	3,310	4,580	4	21	30.4
155. SR 241 NB Ramps & Antonio	4,860	3,950	200	6	276.6
Total	428,570	480,400			17,342.5

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,420	8,540	64	75	309.8
2. Jeronimo & Alicia	5,120	6,360	48	48	153.1
3. Trabuco & Alicia	4,690	5,670	46	60	154.4
4. Marguerite & Alicia	3,870	4,050	12	15	29.8
5. Olympiad & Alicia	3,470	3,690	12	12	23.9
6. Santa Margarita & Alicia	4,700	6,040	13	39	82.4
7. Marguerite & Trabuco	2,950	3,460	35	42	69.0
8. Marguerite & Jeronimo	4,120	4,110	55	20	85.8
9. Olympiad & Jeronimo	1,620	1,780	5	3	3.7
10. Marguerite & La Paz	4,340	5,480	14	51	94.5
11. Olympiad & La Paz	1,990	2,230	8	11	11.2
12. Empresa & Santa Margarita	6,400	5,820	107	64	293.7
13. Empresa & Banderas	3,320	2,900	44	28	63.1
14. Empresa & Antonio	3,930	3,680	9	5	14.9
15. Banderas & Antonio	5,100	4,140	25	27	66.5
16. Cabot & Paseo de Valencia	1,790	2,200	6	19	14.6
17. Cabot & Oso	5,410	6,710	20	83	184.8
18. Marguerite & Oso	6,870	7,310	32	25	111.8
19. Felipe & Oso	5,890	6,560	39	97	240.6
20. Antonio & Oso	9,550	8,870	88	160	627.7
21. Marguerite & Felipe	3,550	3,900	23	40	66.0
22. Moulton & Crown Valley	6,000	7,110	25	40	120.7
23. Greenfield & Crown Valley	4,800	6,410	35	40	117.9
24. Cabot & Crown Valley	5,920	7,530	25	72	191.7
25. Forbes & Crown Valley	5,830	7,140	48	83	242.4
26. Puerta Real & Crown Valley	7,010	8,900	40	69	248.5
27. El Regateo & Crown Valley	6,200	7,390	24	48	139.9
28. Los Altos & Crown Valley	5,990	6,770	23	67	164.3
29. Bellogente & Crown Valley	5,770	6,290	21	19	66.9
30. Marguerite & Crown Valley	8,820	9,430	113	72	465.5
31. Antonio & Crown Valley	5,750	6,530	14	72	153.0
32. Golden Lantern & Paseo de Colinas	5,300	4,890	104	46	215.6
33. Cabot & Paseo de Colinas	2,270	2,400	5	6	7.2
34. Cm Capistrano & Paseo de Colinas	1,700	2,650	4	13	11.5
35. Camino Capistrano & Avery	1,930	2,790	3	7	7.0
36. Marguerite & Avery	3,730	4,730	39	57	115.3
37. Golden Lantern & Marina Hills	4,720	4,600	53	51	134.7
39. Camino Capistrano & Junipero Serra	2,430	2,940	62	60	90.9
40. Rancho Viejo & Junipero Serra	2,740	2,800	9	11	15.4
41. Camino Capistrano & Oso Road	2,100	1,840	6	3	5.0
42. Camino Capistrano & Ortega	2,320	2,350	48	33	52.5
43. Del Obispo & Ortega	3,860	4,180	15	24	44.0

Table F-47 (cont)
 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,800	5,540	33	60	145.5
45. La Novia & Ortega	5,020	4,850	33	104	186.1
46. Antonio/La Pata & Ortega	4,350	4,880	200	200	512.8
47. Alipaz & Del Obispo	3,100	3,610	18	15	30.5
48. Camino Capistrano & Del Obispo	5,850	5,600	107	120	360.5
49. Camino Capistrano & San Juan Creek	4,000	4,670	20	35	67.6
50. Valle & San Juan Creek	3,200	3,510	57	46	95.5
51. La Novia & San Juan Creek	3,430	3,250	200	160	335.0
53. Del Obispo & Del Avion	3,020	2,910	20	12	26.5
54. Alipaz & Del Avion	1,000	800	3	3	1.5
55. Del Obispo & Stonehill	3,190	4,320	60	69	136.0
60. La Pata & Vista Hermosa	4,020	3,780	64	24	96.7
61. Talega & Vista Hermosa	1,760	1,790	3	3	3.0
62. Vera Cruz & Los Mares	1,860	1,510	23	4	13.6
63. Vera Cruz & Vista Hermosa	4,870	4,740	83	117	266.3
64. La Pata & Pico	4,860	4,680	28	30	76.8
65. Vista Hermosa & Pico	2,780	2,850	3	13	12.6
66. PCH & Camino Capistrano	2,270	3,330	24	69	79.0
67. El Camino Real & Pico	2,880	3,830	25	67	91.3
68. El Camino Real & Cristianitos	470	730	2	2	0.7
100. I-5 SB Ramps & Alicia	5,910	6,490	24	42	115.1
101. I-5 NB Ramps & Alicia	6,460	6,430	4	23	48.3
102. I-5 SB Ramps/Cabot & La Paz	3,650	4,560	20	40	70.9
103. I-5 NB Ramps/Muirlands & La Paz	5,420	5,570	46	51	148.2
104. I-5 SB Ramps & Oso	5,400	6,650	15	33	83.5
105. I-5 NB Ramps & Oso	6,100	6,690	32	62	169.4
106. I-5 SB Ramps & Crown Valley	6,900	8,480	28	75	230.3
107. I-5 NB Ramps & Crown Valley	7,830	8,960	25	60	203.7
108. I-5 SB Ramps & Avery	2,760	3,490	30	64	85.0
109. I-5 NB Ramps & Avery	3,080	3,630	72	80	142.3
110. I-5 SB Ramps & Junipero Serra	2,760	3,350	11	25	31.7
111. I-5 NB Ramps & Junipero Serra	2,850	2,910	5	8	10.4
112. I-5 SB Ramps & Ortega	5,360	5,440	94	83	265.4
113. I-5 NB Ramps & Ortega	5,910	5,800	94	77	278.4
114. Camino Capistrano & I-5 SB Ramps	4,070	4,650	57	60	141.9
115. Valle & La Novia/I-5 NB Ramps	2,580	2,750	83	100	135.9
116. Camino Capistrano & Stonehill	4,600	5,970	145	200	516.9
117. I-5 SB Ramps & Las Ramblas	2,680	3,410	2	2	3.4
118. I-5 NB Ramps & Las Ramblas	1,930	1,960	3	3	3.2
119. I-5 SB Ramps & Estrella	3,250	3,630	39	62	97.7
120. I-5 NB Ramps & Estrella	3,990	4,460	4	10	16.8
121. I-5 SB Ramps & Vista Hermosa	2,270	3,020	6	11	13.0

Table F-47 (cont)
 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH EXISTING GENERAL PLAN FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,750	4,110	8	7	16.3
123. I-5 SB Ramps & Pico	3,680	4,890	62	130	240.0
124. I-5 NB Ramps & Pico	5,260	5,960	62	32	143.6
125. I-5 SB Ramp & El Camino Real	1,540	2,450	4	11	9.2
126. I-5 NB Ramps & El Camino Real	1,460	1,930	3	3	2.8
127. I-5 SB Ramps & Cristianitos	470	550	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	730	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,280	2,160	6	6	7.4
151. Greenfield & SR 73 NB Ramps	1,480	1,060	8	4	4.5
152. SR 241 SB Ramps & Santa Margarita	5,220	6,090	33	107	228.9
153. SR 241 NB Ramps & Santa Margarita	7,260	6,390	200	40	474.3
154. SR 241 SB Ramps & Antonio	3,190	4,220	4	15	21.1
155. SR 241 NB Ramps & Antonio	4,750	3,910	200	6	270.4
Total	397,180	439,190			12,082.3

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,300	8,500	64	77	311.6
2. Jeronimo & Alicia	4,960	6,240	42	48	141.1
3. Trabuco & Alicia	4,440	5,570	35	64	142.2
4. Marguerite & Alicia	3,790	3,870	12	11	24.5
5. Olympiad & Alicia	3,320	3,520	10	9	18.0
6. Santa Margarita & Alicia	4,490	5,880	12	32	67.2
7. Marguerite & Trabuco	2,870	3,370	25	37	54.6
8. Marguerite & Jeronimo	4,070	4,030	51	18	77.8
9. Olympiad & Jeronimo	1,590	1,730	4	3	3.2
10. Marguerite & La Paz	4,240	5,300	10	40	70.7
11. Olympiad & La Paz	1,850	2,040	5	6	6.0
12. Empresa & Santa Margarita	6,220	5,730	104	62	278.4
13. Empresa & Banderas	3,240	2,850	33	27	51.1
14. Empresa & Antonio	3,840	3,550	11	4	15.7
15. Banderas & Antonio	4,970	4,070	24	23	59.1
16. Cabot & Paseo de Valencia	1,800	2,140	4	14	10.3
17. Cabot & Oso	5,430	6,510	16	75	159.8
18. Marguerite & Oso	6,710	6,800	32	20	97.4
19. Felipe & Oso	5,230	5,760	25	60	132.3
20. Antonio & Oso	8,730	7,870	75	94	387.4
21. Marguerite & Felipe	3,290	3,710	11	30	41.0
22. Moulton & Crown Valley	6,050	6,990	25	33	106.1
23. Greenfield & Crown Valley	4,730	6,330	37	44	126.0
24. Cabot & Crown Valley	5,750	7,370	23	72	184.1
25. Forbes & Crown Valley	5,720	7,070	44	88	242.7
26. Puerta Real & Crown Valley	6,750	8,460	35	67	223.1
27. El Regateo & Crown Valley	5,920	6,960	19	42	112.4
28. Los Altos & Crown Valley	5,700	6,260	19	51	118.8
29. Bellogente & Crown Valley	5,450	5,800	18	13	48.2
30. Marguerite & Crown Valley	8,240	8,780	100	60	375.2
31. Antonio & Crown Valley	5,380	5,950	9	60	112.6
32. Golden Lantern & Paseo de Colinas	5,180	4,800	104	44	208.3
33. Cabot & Paseo de Colinas	2,190	2,360	4	6	6.4
34. Cm Capistrano & Paseo de Colinas	1,700	2,650	5	14	12.7
35. Camino Capistrano & Avery	1,920	2,780	3	8	7.8
36. Marguerite & Avery	3,570	4,450	27	44	81.2
37. Golden Lantern & Marina Hills	4,630	4,500	46	46	116.7
39. Camino Capistrano & Junipero Serra	2,400	2,850	60	60	87.5
40. Rancho Viejo & Junipero Serra	2,620	2,570	8	8	11.5
41. Camino Capistrano & Oso Road	2,060	1,750	6	3	4.9
42. Camino Capistrano & Ortega	2,150	2,410	33	39	45.8
43. Del Obispo & Ortega	3,860	4,170	16	23	43.8

Table F-48 (cont)
2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH NO FUTURE DEVELOPMENT IN RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,540	5,160	27	44	104.6
45. La Novia & Ortega	4,650	4,420	32	72	129.7
46. Antonio/La Pata & Ortega	3,550	3,780	200	172	377.8
47. Alipaz & Del Obispo	3,140	3,570	19	15	31.4
48. Camino Capistrano & Del Obispo	5,770	5,510	107	123	359.8
49. Camino Capistrano & San Juan Creek	3,960	4,610	21	27	57.7
50. Valle & San Juan Creek	3,180	3,540	60	46	98.2
51. La Novia & San Juan Creek	3,360	3,140	185	168	319.2
53. Del Obispo & Del Avion	3,010	2,930	19	13	26.5
54. Alipaz & Del Avion	1,000	800	3	3	1.5
55. Del Obispo & Stonehill	3,140	4,360	60	69	135.9
60. La Pata & Vista Hermosa	3,980	3,680	60	20	86.8
61. Talega & Vista Hermosa	1,720	1,740	3	3	2.9
62. Vera Cruz & Los Mares	1,820	1,450	21	3	11.8
63. Vera Cruz & Vista Hermosa	4,830	4,660	80	117	258.8
64. La Pata & Pico	4,550	4,410	24	28	64.6
65. Vista Hermosa & Pico	2,440	2,550	4	12	11.2
66. PCH & Camino Capistrano	2,210	3,250	21	67	73.4
67. El Camino Real & Pico	2,860	3,800	24	64	86.6
68. El Camino Real & Cristianitos	470	730	2	2	0.7
100. I-5 SB Ramps & Alicia	5,850	6,440	24	44	117.7
101. I-5 NB Ramps & Alicia	6,370	6,330	4	21	44.0
102. I-5 SB Ramps/Cabot & La Paz	3,590	4,530	21	44	76.3
103. I-5 NB Ramps/Muirlands & La Paz	5,410	5,290	51	35	128.1
104. I-5 SB Ramps & Oso	5,410	6,400	18	30	80.4
105. I-5 NB Ramps & Oso	5,920	6,380	28	48	131.1
106. I-5 SB Ramps & Crown Valley	6,640	8,310	21	67	193.4
107. I-5 NB Ramps & Crown Valley	7,600	8,700	24	51	173.9
108. I-5 SB Ramps & Avery	2,640	3,450	23	62	76.3
109. I-5 NB Ramps & Avery	2,970	3,510	53	86	127.6
110. I-5 SB Ramps & Junipero Serra	2,720	3,240	10	24	29.2
111. I-5 NB Ramps & Junipero Serra	2,760	2,810	4	9	10.1
112. I-5 SB Ramps & Ortega	5,290	5,260	88	72	234.5
113. I-5 NB Ramps & Ortega	5,770	5,550	72	60	207.9
114. Camino Capistrano & I-5 SB Ramps	4,030	4,610	51	55	127.5
115. Valle & La Novia/I-5 NB Ramps	2,530	2,790	72	127	149.0
116. Camino Capistrano & Stonehill	4,580	5,920	149	198	515.2
117. I-5 SB Ramps & Las Ramblas	2,640	3,440	2	2	3.4
118. I-5 NB Ramps & Las Ramblas	1,960	1,890	3	3	3.2
119. I-5 SB Ramps & Estrella	3,330	3,650	44	62	103.6
120. I-5 NB Ramps & Estrella	4,080	4,480	4	11	18.2
121. I-5 SB Ramps & Vista Hermosa	2,180	2,960	6	9	11.0

Table F-48 (cont)
 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH NO FUTURE DEVELOPMENT IN RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,650	4,040	8	6	14.8
123. I-5 SB Ramps & Pico	3,600	4,540	48	69	135.0
124. I-5 NB Ramps & Pico	5,100	5,720	64	24	128.8
125. I-5 SB Ramp & El Camino Real	1,570	2,390	4	9	7.7
126. I-5 NB Ramps & El Camino Real	1,490	1,920	3	3	2.8
127. I-5 SB Ramps & Cristianitos	470	550	2	2	0.6
128. I-5 NB Ramps & Cristianitos	620	730	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,250	2,080	6	5	6.6
151. Greenfield & SR 73 NB Ramps	1,440	1,090	7	4	4.0
152. SR 241 SB Ramps & Santa Margarita	5,180	6,090	32	110	232.1
153. SR 241 NB Ramps & Santa Margarita	7,260	6,320	200	39	471.8
154. SR 241 SB Ramps & Antonio	3,100	4,120	4	16	21.8
155. SR 241 NB Ramps & Antonio	4,590	3,880	200	6	261.5
Total	385,550	423,890			10,516.8

Table F-49
2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,350	8,480	64	77	312.0
2. Jeronimo & Alicia	5,090	6,430	24	35	96.4
3. Trabuco & Alicia	4,750	5,850	24	27	75.5
4. Marguerite & Alicia	3,860	3,960	9	14	25.1
5. Olympiad & Alicia	3,910	4,330	40	25	73.5
6. Santa Margarita & Alicia	4,890	6,410	16	44	100.1
7. Marguerite & Trabuco	2,920	3,250	16	27	37.4
8. Marguerite & Jeronimo	4,170	3,980	42	20	70.8
9. Olympiad & Jeronimo	2,360	2,340	20	5	16.4
10. Marguerite & La Paz	4,290	5,600	13	62	111.9
11. Olympiad & La Paz	2,540	2,920	7	23	23.6
12. Empresa & Santa Margarita	6,630	6,150	123	80	363.2
13. Empresa & Banderas	3,520	3,090	60	39	92.1
14. Empresa & Antonio	4,130	4,070	12	6	20.6
15. Banderas & Antonio	5,520	4,680	25	35	83.8
16. Cabot & Paseo de Valencia	1,840	2,290	6	21	16.4
17. Cabot & Oso	5,340	6,600	20	83	181.8
18. Marguerite & Oso	7,140	7,390	39	33	145.1
19. Felipe & Oso	6,590	7,270	62	134	384.1
20. Antonio & Oso	10,850	10,070	185	127	912.8
21. Marguerite & Felipe	3,580	4,060	24	53	83.6
22. Moulton & Crown Valley	5,560	6,500	14	25	66.8
23. Greenfield & Crown Valley	4,350	5,920	27	42	101.7
24. Cabot & Crown Valley	5,590	7,200	20	64	159.1
25. Forbes & Crown Valley	5,630	6,980	46	80	227.1
26. Puerta Real & Crown Valley	6,870	8,700	37	67	232.5
27. El Regateo & Crown Valley	6,150	7,340	21	46	129.7
28. Los Altos & Crown Valley	5,980	6,730	21	60	147.1
29. Bellogente & Crown Valley	5,760	6,330	20	16	60.1
30. Marguerite & Crown Valley	8,960	9,720	127	97	578.0
31. Antonio & Crown Valley	6,500	7,370	44	83	249.4
32. Golden Lantern & Paseo de Colinas	4,680	4,280	32	11	54.7
33. Cabot & Paseo de Colinas	1,720	1,890	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,230	2,150	3	5	4.0
35. Camino Capistrano & Avery	2,110	3,030	9	20	22.1
36. Marguerite & Avery	3,590	4,530	28	42	80.8
37. Golden Lantern & Marina Hills	5,500	5,520	37	23	91.8
39. Camino Capistrano & Junipero Serra	3,310	3,970	60	21	78.3
40. Rancho Viejo & Junipero Serra	3,020	2,830	12	12	19.5
41. Camino Capistrano & Oso Road	2,360	2,140	18	8	16.6
42. Camino Capistrano & Ortega	1,810	1,870	13	13	13.3
43. Del Obispo & Ortega	3,330	3,790	10	18	28.2

Table F-49 (cont)
 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,950	5,710	37	75	180.1
45. La Novia & Ortega	4,470	4,250	35	40	90.7
46. Antonio/La Pata & Ortega	6,280	6,670	145	86	412.3
47. Alipaz & Del Obispo	3,060	3,470	16	35	47.3
48. Camino Capistrano & Del Obispo	5,210	4,790	57	94	207.6
49. Camino Capistrano & San Juan Creek	4,070	4,990	19	44	82.5
50. Valle & San Juan Creek	3,200	3,650	13	39	51.1
51. La Novia & San Juan Creek	3,600	3,320	44	24	66.1
53. Del Obispo & Del Avion	2,840	2,630	12	10	16.8
54. Alipaz & Del Avion	870	690	3	2	1.1
55. Del Obispo & Stonehill	3,120	4,300	14	28	45.6
60. La Pata & Vista Hermosa	6,130	6,150	88	46	228.4
61. Talega & Vista Hermosa	2,310	2,100	7	5	7.4
62. Vera Cruz & Los Mares	1,420	1,260	4	2	2.3
63. Vera Cruz & Vista Hermosa	3,440	3,460	18	23	39.3
64. La Pata & Pico	6,450	6,840	57	91	275.0
65. Vista Hermosa & Pico	3,730	4,180	7	21	31.6
66. PCH & Camino Capistrano	1,780	2,760	3	6	6.1
67. El Camino Real & Pico	2,610	3,660	6	9	13.5
68. El Camino Real & Cristianitos	480	740	2	2	0.7
100. I-5 SB Ramps & Alicia	5,750	6,580	23	46	120.8
101. I-5 NB Ramps & Alicia	6,310	6,420	4	23	48.0
102. I-5 SB Ramps/Cabot & La Paz	3,610	4,500	11	21	37.3
103. I-5 NB Ramps/Muirlands & La Paz	5,620	5,570	55	53	167.9
104. I-5 SB Ramps & Oso	5,240	6,450	16	35	86.0
105. I-5 NB Ramps & Oso	6,220	6,430	32	44	133.9
106. I-5 SB Ramps & Crown Valley	6,520	8,300	23	67	196.1
107. I-5 NB Ramps & Crown Valley	7,650	8,630	23	48	163.9
108. I-5 SB Ramps & Avery	2,670	3,730	8	18	24.6
109. I-5 NB Ramps & Avery	3,020	3,640	11	24	33.5
110. I-5 SB Ramps & Junipero Serra	3,290	3,860	16	27	43.6
111. I-5 NB Ramps & Junipero Serra	3,200	3,120	8	13	18.4
112. I-5 SB Ramps & Ortega	4,580	5,210	39	53	126.3
113. I-5 NB Ramps & Ortega	5,470	5,610	11	15	40.1
114. Camino Capistrano & I-5 SB Ramps	3,670	4,480	28	53	94.5
115. Valle & La Novia/I-5 NB Ramps	2,200	2,220	46	57	63.3
116. Camino Capistrano & Stonehill	4,320	5,820	21	44	96.3
117. I-5 SB Ramps & Las Ramblas	2,780	3,390	2	3	4.4
118. I-5 NB Ramps & Las Ramblas	1,580	1,820	2	3	2.4
119. I-5 SB Ramps & Estrella	2,800	3,320	19	39	50.7
120. I-5 NB Ramps & Estrella	3,530	4,010	3	6	9.6
121. I-5 SB Ramps & Vista Hermosa	2,120	3,150	3	4	5.3

Table F-49 (cont)
 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,730	3,950	10	6	16.9
123. I-5 SB Ramps & Pico	3,830	4,540	97	91	218.0
124. I-5 NB Ramps & Pico	5,430	5,900	57	33	140.1
125. I-5 SB Ramp & El Camino Real	1,640	2,490	4	12	10.1
126. I-5 NB Ramps & El Camino Real	1,550	1,980	3	3	2.9
127. I-5 SB Ramps & Cristianitos	470	560	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	740	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,260	2,120	6	7	7.9
151. Greenfield & SR 73 NB Ramps	1,520	1,010	8	3	4.2
152. SR 241 SB Ramps & Santa Margarita	5,290	6,170	35	113	245.1
153. SR 241 NB Ramps & Santa Margarita	7,350	6,420	16	39	102.2
154. SR 241 SB Ramps & Antonio	3,380	4,460	4	19	27.3
155. SR 241 NB Ramps & Antonio	4,720	3,980	149	6	202.0
Total	401,680	446,300			9,944.1

Table F-50 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)					
Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,230	8,310	69	64	286.3
2. Jeronimo & Alicia	5,150	6,600	25	40	109.1
3. Trabuco & Alicia	4,830	5,960	27	24	76.0
4. Marguerite & Alicia	3,900	3,990	10	18	30.8
5. Olympiad & Alicia	3,890	4,340	39	30	78.3
6. Santa Margarita & Alicia	4,950	6,350	16	46	103.1
7. Marguerite & Trabuco	2,990	3,300	18	32	44.3
8. Marguerite & Jeronimo	4,360	4,110	48	28	90.1
9. Olympiad & Jeronimo	2,410	2,430	27	6	22.1
10. Marguerite & La Paz	4,410	5,580	15	55	103.6
11. Olympiad & La Paz	2,600	2,810	7	24	23.8
12. Empresa & Santa Margarita	6,630	6,040	127	75	359.7
13. Empresa & Banderas	3,560	2,970	64	33	90.5
14. Empresa & Antonio	3,830	3,680	9	5	14.7
15. Banderas & Antonio	5,220	4,320	24	32	73.2
16. Cabot & Paseo de Valencia	1,720	2,410	6	24	18.9
17. Cabot & Oso	5,590	7,050	16	100	220.7
18. Marguerite & Oso	7,260	7,180	46	44	180.5
19. Felipe & Oso	6,850	7,800	67	153	459.0
20. Antonio & Oso	10,030	9,420	149	113	710.8
21. Marguerite & Felipe	3,880	4,460	37	97	160.1
22. Moulton & Crown Valley	5,740	6,700	18	28	80.8
23. Greenfield & Crown Valley	4,520	6,110	37	53	136.4
24. Cabot & Crown Valley	5,690	7,590	19	77	192.4
25. Forbes & Crown Valley	5,740	7,150	48	80	235.4
26. Puerta Real & Crown Valley	7,180	9,370	42	80	292.0
27. El Regateo & Crown Valley	6,500	8,090	25	62	184.5
28. Los Altos & Crown Valley	6,340	7,570	27	75	205.3
29. Bellogente & Crown Valley	6,150	7,200	27	24	94.1
30. Marguerite & Crown Valley	9,680	10,820	168	156	920.6
31. Antonio & Crown Valley	9,640	10,850	200	141	960.5
32. Golden Lantern & Paseo de Colinas	4,810	4,400	33	13	60.0
33. Cabot & Paseo de Colinas	1,730	1,950	5	4	4.6
34. Cm Capistrano & Paseo de Colinas	1,250	2,180	3	6	4.7
35. Camino Capistrano & Avery	2,190	3,160	9	32	33.6
36. Marguerite & Avery	3,810	4,860	44	55	120.8
37. Golden Lantern & Marina Hills	5,670	5,680	39	24	99.3
39. Camino Capistrano & Junipero Serra	3,380	3,980	75	25	98.1
40. Rancho Viejo & Junipero Serra	3,210	3,070	16	19	30.5
41. Camino Capistrano & Oso Road	2,510	2,220	25	9	23.0
42. Camino Capistrano & Ortega	1,830	1,900	15	12	14.0
43. Del Obispo & Ortega	3,230	3,580	8	13	20.1

Table F-50 (cont)
 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	6,070	5,950	55	88	238.2
45. La Novia & Ortega	4,760	4,720	55	53	142.2
46. Antonio/La Pata & Ortega	8,460	9,510	164	200	913.7
47. Alipaz & Del Obispo	3,030	3,410	15	32	42.9
48. Camino Capistrano & Del Obispo	5,180	4,850	48	110	217.3
49. Camino Capistrano & San Juan Creek	4,240	5,170	27	48	100.7
50. Valle & San Juan Creek	3,370	3,740	16	33	49.3
51. La Novia & San Juan Creek	3,730	3,630	51	35	88.1
53. Del Obispo & Del Avion	2,860	2,660	18	10	21.7
54. Alipaz & Del Avion	870	700	3	2	1.1
55. Del Obispo & Stonehill	3,130	4,350	12	33	50.3
60. La Pata & Vista Hermosa	6,210	6,400	80	72	266.0
61. Talega & Vista Hermosa	2,330	2,040	5	4	5.5
62. Vera Cruz & Los Mares	1,560	1,290	4	2	2.5
63. Vera Cruz & Vista Hermosa	3,520	3,630	20	28	47.8
64. La Pata & Pico	6,690	7,400	51	100	300.3
65. Vista Hermosa & Pico	4,260	4,900	6	33	52.0
66. PCH & Camino Capistrano	1,840	2,820	3	6	6.2
67. El Camino Real & Pico	2,590	3,730	6	12	16.8
68. El Camino Real & Cristianitos	480	730	2	2	0.7
100. I-5 SB Ramps & Alicia	5,740	6,430	23	48	122.4
101. I-5 NB Ramps & Alicia	6,480	6,230	4	23	47.0
102. I-5 SB Ramps/Cabot & La Paz	3,480	4,650	8	28	43.9
103. I-5 NB Ramps/Muirlands & La Paz	5,490	5,500	55	44	151.1
104. I-5 SB Ramps & Oso	5,550	6,540	19	28	80.2
105. I-5 NB Ramps & Oso	6,740	6,460	60	48	198.5
106. I-5 SB Ramps & Crown Valley	6,680	9,020	27	100	300.7
107. I-5 NB Ramps & Crown Valley	7,930	9,560	25	69	238.3
108. I-5 SB Ramps & Avery	2,790	3,810	8	21	28.4
109. I-5 NB Ramps & Avery	3,280	3,870	12	20	32.4
110. I-5 SB Ramps & Junipero Serra	3,360	4,030	20	37	60.1
111. I-5 NB Ramps & Junipero Serra	3,470	3,310	12	12	22.6
112. I-5 SB Ramps & Ortega	4,590	5,190	42	62	142.9
113. I-5 NB Ramps & Ortega	5,450	5,750	11	15	40.6
114. Camino Capistrano & I-5 SB Ramps	3,920	4,610	39	60	119.3
115. Valle & La Novia/I-5 NB Ramps	2,150	1,900	18	23	22.9
116. Camino Capistrano & Stonehill	4,440	5,960	24	48	109.1
117. I-5 SB Ramps & Las Ramblas	2,920	3,620	3	4	6.5
118. I-5 NB Ramps & Las Ramblas	1,790	2,070	2	3	2.7
119. I-5 SB Ramps & Estrella	2,890	3,280	24	37	53.0
120. I-5 NB Ramps & Estrella	3,630	4,030	3	5	8.6
121. I-5 SB Ramps & Vista Hermosa	2,230	3,140	4	4	6.0

Table F-50 (cont)
 2025 INTERSECTION DELAY SUMMARY – NO ACTION ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,850	4,250	13	7	22.2
123. I-5 SB Ramps & Pico	3,700	4,700	80	117	235.0
124. I-5 NB Ramps & Pico	5,250	5,880	62	32	142.7
125. I-5 SB Ramp & El Camino Real	1,680	2,460	4	12	10.1
126. I-5 NB Ramps & El Camino Real	1,540	1,960	3	3	2.9
127. I-5 SB Ramps & Cristianitos	470	550	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	730	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,360	2,260	7	8	9.6
151. Greenfield & SR 73 NB Ramps	1,610	1,070	9	3	4.9
152. SR 241 SB Ramps & Santa Margarita	5,020	5,990	32	113	232.6
153. SR 241 NB Ramps & Santa Margarita	7,230	6,300	14	37	92.9
154. SR 241 SB Ramps & Antonio	3,100	4,240	4	16	22.3
155. SR 241 NB Ramps & Antonio	4,700	3,900	181	6	242.8
Total	414,840	464,510			12,488.5

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,290	8,290	64	64	277.0
2. Jeronimo & Alicia	5,020	6,370	48	44	144.8
3. Trabuco & Alicia	4,590	5,730	37	67	153.8
4. Marguerite & Alicia	3,840	4,030	12	14	28.5
5. Olympiad & Alicia	3,480	3,770	12	11	23.1
6. Santa Margarita & Alicia	4,890	6,290	13	44	94.5
7. Marguerite & Trabuco	2,920	3,330	27	35	54.3
8. Marguerite & Jeronimo	4,040	4,030	42	18	67.3
9. Olympiad & Jeronimo	1,630	1,770	5	3	3.7
10. Marguerite & La Paz	4,350	5,440	12	46	84.0
11. Olympiad & La Paz	1,990	2,290	8	12	12.1
12. Empresa & Santa Margarita	6,530	6,000	104	69	303.6
13. Empresa & Banderas	3,310	2,890	40	25	56.8
14. Empresa & Antonio	3,850	3,580	11	5	16.7
15. Banderas & Antonio	4,730	3,840	23	20	51.6
16. Cabot & Paseo de Valencia	1,710	2,110	5	13	10.0
17. Cabot & Oso	5,460	6,630	19	83	181.7
18. Marguerite & Oso	7,100	7,420	37	33	141.0
19. Felipe & Oso	6,160	6,870	39	97	251.8
20. Antonio & Oso	9,220	8,520	130	127	633.5
21. Marguerite & Felipe	3,350	3,870	16	42	60.0
22. Moulton & Crown Valley	5,970	6,860	20	33	96.1
23. Greenfield & Crown Valley	4,780	6,350	33	42	117.9
24. Cabot & Crown Valley	5,880	7,390	25	75	194.8
25. Forbes & Crown Valley	5,790	7,090	51	86	251.4
26. Puerta Real & Crown Valley	7,030	8,850	39	69	245.8
27. El Regateo & Crown Valley	6,310	7,450	23	48	139.6
28. Los Altos & Crown Valley	6,140	6,870	23	62	157.5
29. Bellogente & Crown Valley	5,900	6,450	21	18	66.7
30. Marguerite & Crown Valley	8,970	9,740	117	86	524.2
31. Antonio & Crown Valley	6,300	7,080	39	88	241.3
32. Golden Lantern & Paseo de Colinas	5,170	4,640	94	40	186.6
33. Cabot & Paseo de Colinas	2,240	2,380	6	6	7.7
34. Cm Capistrano & Paseo de Colinas	1,680	2,680	4	14	12.3
35. Camino Capistrano & Avery	1,930	2,840	3	8	7.9
36. Marguerite & Avery	3,490	4,390	20	48	77.9
37. Golden Lantern & Marina Hills	4,530	4,300	44	40	103.1
39. Camino Capistrano & Junipero Serra	2,320	2,690	48	48	66.8
40. Rancho Viejo & Junipero Serra	2,630	2,490	9	7	11.4
41. Camino Capistrano & Oso Road	1,950	1,540	5	3	4.0
42. Camino Capistrano & Ortega	2,020	2,100	24	21	25.7
43. Del Obispo & Ortega	3,850	4,170	16	23	43.8

Table F-51 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,800	5,510	24	64	136.6
45. La Novia & Ortega	4,620	4,400	28	53	100.7
46. Antonio/La Pata & Ortega	3,660	4,020	200	200	426.7
47. Alipaz & Del Obispo	3,220	3,640	20	19	37.1
48. Camino Capistrano & Del Obispo	5,630	5,200	75	94	253.1
49. Camino Capistrano & San Juan Creek	3,730	4,380	11	21	36.9
50. Valle & San Juan Creek	2,780	3,040	62	44	85.0
51. La Novia & San Juan Creek	2,930	2,640	91	62	119.5
53. Del Obispo & Del Avion	3,000	2,840	18	11	23.7
54. Alipaz & Del Avion	990	810	3	3	1.5
55. Del Obispo & Stonehill	3,150	4,270	62	67	133.7
60. La Pata & Vista Hermosa	3,610	3,660	23	14	37.3
61. Talega & Vista Hermosa	2,580	2,500	8	10	12.7
62. Vera Cruz & Los Mares	1,170	1,190	3	3	2.0
63. Vera Cruz & Vista Hermosa	4,050	4,070	51	64	129.7
64. La Pata & Pico	5,120	5,660	15	48	96.8
65. Vista Hermosa & Pico	3,960	4,630	10	15	30.3
66. PCH & Camino Capistrano	1,710	2,740	8	51	42.6
67. El Camino Real & Pico	2,380	3,570	20	67	79.7
68. El Camino Real & Cristianitos	980	1,400	3	7	3.5
100. I-5 SB Ramps & Alicia	5,770	6,560	23	48	124.3
101. I-5 NB Ramps & Alicia	6,350	6,380	4	23	47.8
102. I-5 SB Ramps/Cabot & La Paz	3,450	4,530	13	42	65.3
103. I-5 NB Ramps/Muirlands & La Paz	5,360	5,450	51	42	139.5
104. I-5 SB Ramps & Oso	5,480	6,600	19	33	89.4
105. I-5 NB Ramps & Oso	6,390	6,590	35	53	159.1
106. I-5 SB Ramps & Crown Valley	6,770	8,420	21	67	196.2
107. I-5 NB Ramps & Crown Valley	7,840	8,950	28	55	197.7
108. I-5 SB Ramps & Avery	2,650	3,540	21	64	78.4
109. I-5 NB Ramps & Avery	2,950	3,620	55	97	142.6
110. I-5 SB Ramps & Junipero Serra	2,660	3,050	9	15	19.4
111. I-5 NB Ramps & Junipero Serra	2,800	2,690	5	7	9.1
112. I-5 SB Ramps & Ortega	5,240	5,650	67	86	232.5
113. I-5 NB Ramps & Ortega	5,900	5,990	35	33	112.3
114. Camino Capistrano & I-5 SB Ramps	3,760	4,420	35	44	90.6
115. Valle & La Novia/I-5 NB Ramps	2,130	2,110	42	39	47.7
116. Camino Capistrano & Stonehill	4,450	5,780	113	200	460.8
117. I-5 SB Ramps & Las Ramblas	2,810	3,410	2	3	4.4
118. I-5 NB Ramps & Las Ramblas	1,810	1,850	2	2	2.0
119. I-5 SB Ramps & Estrella	2,800	3,530	19	53	66.7
120. I-5 NB Ramps & Estrella	3,450	4,920	3	8	13.8
121. I-5 SB Ramps & Vista Hermosa	2,190	2,840	4	7	8.0

Table F-51 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,590	3,740	6	6	12.2
123. I-5 SB Ramps & Pico	3,580	4,680	48	80	151.7
124. I-5 NB Ramps & Pico	4,970	5,670	51	25	109.8
125. I-5 SB Ramp & El Camino Real	1,600	2,420	3	9	7.4
126. I-5 NB Ramps & El Camino Real	1,460	1,950	3	3	2.8
127. I-5 SB Ramps & Cristianitos	540	700	2	2	0.7
128. I-5 NB Ramps & Cristianitos	990	1,200	3	7	3.2
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,380	2,260	6	7	8.4
151. Greenfield & SR 73 NB Ramps	1,530	1,150	9	5	5.4
152. SR 241 SB Ramps & Santa Margarita	5,360	6,180	33	104	227.7
153. SR 241 NB Ramps & Santa Margarita	7,380	6,430	200	40	481.4
154. SR 241 SB Ramps & Antonio	3,160	4,210	4	21	28.1
155. SR 241 NB Ramps & Antonio	4,650	3,990	198	6	262.4
Total	391,040	435,140			10,633.3

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,210	8,210	62	64	270.1
2. Jeronimo & Alicia	4,960	6,270	21	33	86.4
3. Trabuco & Alicia	4,570	5,670	16	24	58.1
4. Marguerite & Alicia	3,780	3,920	8	14	23.6
5. Olympiad & Alicia	3,710	4,140	30	19	52.8
6. Santa Margarita & Alicia	4,820	6,280	13	42	90.7
7. Marguerite & Trabuco	2,790	3,140	16	21	30.7
8. Marguerite & Jeronimo	3,970	3,820	37	18	59.9
9. Olympiad & Jeronimo	2,040	2,170	7	4	6.4
10. Marguerite & La Paz	4,230	5,340	12	46	82.3
11. Olympiad & La Paz	2,270	2,660	6	15	14.9
12. Empresa & Santa Margarita	6,440	5,940	107	72	310.2
13. Empresa & Banderas	3,290	2,840	39	24	54.6
14. Empresa & Antonio	3,830	3,570	10	4	14.6
15. Banderas & Antonio	4,810	3,880	21	19	48.5
16. Cabot & Paseo de Valencia	1,760	2,150	6	15	11.9
17. Cabot & Oso	5,320	6,490	19	83	177.7
18. Marguerite & Oso	6,970	7,230	33	30	124.1
19. Felipe & Oso	6,150	6,880	44	97	260.5
20. Antonio & Oso	9,310	8,570	75	80	384.4
21. Marguerite & Felipe	3,400	3,900	18	44	64.7
22. Moulton & Crown Valley	5,500	6,390	13	24	62.5
23. Greenfield & Crown Valley	4,340	5,800	28	40	98.2
24. Cabot & Crown Valley	5,490	7,050	18	55	135.2
25. Forbes & Crown Valley	5,540	6,890	44	77	215.1
26. Puerta Real & Crown Valley	6,820	8,660	35	69	232.3
27. El Regateo & Crown Valley	6,100	7,280	20	46	126.9
28. Los Altos & Crown Valley	5,950	6,690	21	60	146.2
29. Bellogente & Crown Valley	5,710	6,290	20	16	59.7
30. Marguerite & Crown Valley	8,800	9,480	117	77	488.8
31. Antonio & Crown Valley	6,400	7,080	39	80	226.7
32. Golden Lantern & Paseo de Colinas	4,630	4,130	30	11	51.2
33. Cabot & Paseo de Colinas	1,730	1,850	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,240	2,130	3	5	4.0
35. Camino Capistrano & Avery	2,160	3,050	11	23	26.1
36. Marguerite & Avery	3,440	4,390	20	40	67.9
37. Golden Lantern & Marina Hills	5,470	5,380	35	19	81.6
39. Camino Capistrano & Junipero Serra	3,240	3,800	48	14	58.0
40. Rancho Viejo & Junipero Serra	2,930	2,660	13	9	17.2
41. Camino Capistrano & Oso Road	2,220	1,910	14	6	11.8
42. Camino Capistrano & Ortega	1,620	1,640	7	8	6.8
43. Del Obispo & Ortega	3,240	3,620	8	12	19.3

Table F-52 (cont)
2025 INTERSECTION DELAY SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,840	5,580	32	72	163.5
45. La Novia & Ortega	4,310	4,110	32	28	70.3
46. Antonio/La Pata & Ortega	5,310	5,630	134	83	327.5
47. Alipaz & Del Obispo	3,080	3,480	15	37	48.6
48. Camino Capistrano & Del Obispo	4,990	4,520	39	80	154.5
49. Camino Capistrano & San Juan Creek	3,840	4,830	13	44	72.9
50. Valle & San Juan Creek	3,130	3,550	12	30	40.0
51. La Novia & San Juan Creek	3,510	3,270	37	24	57.9
53. Del Obispo & Del Avion	2,790	2,580	12	11	17.2
54. Alipaz & Del Avion	840	690	3	2	1.1
55. Del Obispo & Stonehill	3,070	4,180	13	25	40.1
60. La Pata & Vista Hermosa	4,390	4,530	25	14	48.1
61. Talega & Vista Hermosa	2,290	2,120	5	4	5.5
62. Vera Cruz & Los Mares	1,170	1,030	3	2	1.5
63. Vera Cruz & Vista Hermosa	3,070	2,940	12	12	20.0
64. La Pata & Pico	5,300	6,100	15	46	100.0
65. Vista Hermosa & Pico	3,760	4,430	7	10	19.6
66. PCH & Camino Capistrano	1,690	2,620	3	6	5.8
67. El Camino Real & Pico	2,340	3,540	4	8	10.5
68. El Camino Real & Cristianitos	910	1,330	2	7	3.1
100. I-5 SB Ramps & Alicia	5,700	6,520	23	46	119.7
101. I-5 NB Ramps & Alicia	6,260	6,330	4	23	47.4
102. I-5 SB Ramps/Cabot & La Paz	3,480	4,460	8	24	37.5
103. I-5 NB Ramps/Muirlands & La Paz	5,350	5,370	48	40	131.0
104. I-5 SB Ramps & Oso	5,190	6,400	15	32	78.5
105. I-5 NB Ramps & Oso	6,100	6,410	30	46	132.7
106. I-5 SB Ramps & Crown Valley	6,470	8,240	23	62	183.2
107. I-5 NB Ramps & Crown Valley	7,620	8,570	24	46	160.3
108. I-5 SB Ramps & Avery	2,720	3,730	9	24	31.7
109. I-5 NB Ramps & Avery	3,040	3,590	12	21	31.1
110. I-5 SB Ramps & Junipero Serra	3,240	3,670	13	20	32.1
111. I-5 NB Ramps & Junipero Serra	3,200	3,000	8	12	17.1
112. I-5 SB Ramps & Ortega	4,520	5,130	35	51	116.6
113. I-5 NB Ramps & Ortega	5,370	5,610	9	13	33.7
114. Camino Capistrano & I-5 SB Ramps	3,510	4,500	23	46	79.9
115. Valle & La Novia/I-5 NB Ramps	2,040	1,980	28	27	30.7
116. Camino Capistrano & Stonehill	4,180	5,730	18	40	84.6
117. I-5 SB Ramps & Las Ramblas	2,810	3,410	2	3	4.4
118. I-5 NB Ramps & Las Ramblas	1,670	1,880	2	3	2.5
119. I-5 SB Ramps & Estrella	2,740	3,300	16	39	47.9
120. I-5 NB Ramps & Estrella	3,270	3,790	3	6	9.0
121. I-5 SB Ramps & Vista Hermosa	1,990	2,710	3	5	5.4

Table F-52 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,340	3,460	5	5	9.4
123. I-5 SB Ramps & Pico	3,320	4,310	32	44	82.2
124. I-5 NB Ramps & Pico	4,670	5,330	46	16	83.4
125. I-5 SB Ramp & El Camino Real	1,600	2,320	3	7	5.8
126. I-5 NB Ramps & El Camino Real	1,490	1,910	3	4	3.4
127. I-5 SB Ramps & Cristianitos	520	660	2	2	0.7
128. I-5 NB Ramps & Cristianitos	930	1,140	2	6	2.4
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,260	2,030	6	6	7.2
151. Greenfield & SR 73 NB Ramps	1,530	1,020	8	3	4.3
152. SR 241 SB Ramps & Santa Margarita	5,320	6,180	33	107	232.5
153. SR 241 NB Ramps & Santa Margarita	7,360	6,440	18	40	108.4
154. SR 241 SB Ramps & Antonio	3,180	4,190	4	20	26.8
155. SR 241 NB Ramps & Antonio	4,650	3,970	120	6	161.6
Total	385,900	429,680			7,722.0

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,150	8,180	64	62	268.0
2. Jeronimo & Alicia	5,080	6,500	24	39	104.3
3. Trabuco & Alicia	4,780	5,880	24	24	71.1
4. Marguerite & Alicia	3,890	4,050	9	20	32.2
5. Olympiad & Alicia	3,880	4,320	37	27	72.3
6. Santa Margarita & Alicia	5,080	6,390	18	51	115.9
7. Marguerite & Trabuco	2,830	3,200	16	23	33.0
8. Marguerite & Jeronimo	4,100	3,960	46	23	77.7
9. Olympiad & Jeronimo	2,190	2,280	12	5	10.5
10. Marguerite & La Paz	4,260	5,460	12	53	94.6
11. Olympiad & La Paz	2,440	2,650	8	19	19.4
12. Empresa & Santa Margarita	6,800	6,060	120	75	352.9
13. Empresa & Banderas	3,570	2,910	64	27	85.3
14. Empresa & Antonio	3,800	3,610	11	5	16.6
15. Banderas & Antonio	5,000	4,020	23	25	59.9
16. Cabot & Paseo de Valencia	1,760	2,280	6	20	15.6
17. Cabot & Oso	5,510	6,950	24	97	224.0
18. Marguerite & Oso	7,230	7,160	40	35	149.9
19. Felipe & Oso	6,700	7,580	57	153	428.2
20. Antonio & Oso	9,310	8,710	130	88	549.1
21. Marguerite & Felipe	3,590	4,130	21	80	112.7
22. Moulton & Crown Valley	5,640	6,450	14	25	66.7
23. Greenfield & Crown Valley	4,430	5,920	32	51	123.2
24. Cabot & Crown Valley	5,550	7,290	19	62	154.8
25. Forbes & Crown Valley	5,710	7,090	46	80	230.5
26. Puerta Real & Crown Valley	7,040	9,170	40	75	269.3
27. El Regateo & Crown Valley	6,430	7,880	24	57	167.6
28. Los Altos & Crown Valley	6,310	7,380	27	69	188.8
29. Bellogente & Crown Valley	6,110	6,990	25	21	83.2
30. Marguerite & Crown Valley	9,330	10,480	130	130	715.4
31. Antonio & Crown Valley	8,420	9,800	110	86	491.4
32. Golden Lantern & Paseo de Colinas	4,690	4,100	32	12	55.4
33. Cabot & Paseo de Colinas	1,700	1,880	5	4	4.5
34. Cm Capistrano & Paseo de Colinas	1,260	2,160	3	5	4.1
35. Camino Capistrano & Avery	2,220	3,140	12	30	33.6
36. Marguerite & Avery	3,530	4,660	24	51	89.6
37. Golden Lantern & Marina Hills	5,500	5,300	37	18	83.0
39. Camino Capistrano & Junipero Serra	3,160	3,750	46	13	53.9
40. Rancho Viejo & Junipero Serra	2,910	2,590	13	9	17.0
41. Camino Capistrano & Oso Road	2,230	1,940	15	6	12.5
42. Camino Capistrano & Ortega	1,590	1,670	6	8	6.4
43. Del Obispo & Ortega	3,240	3,670	8	14	21.5

Table F-53 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,630	5,580	28	72	155.4
45. La Novia & Ortega	4,290	4,360	33	37	84.1
46. Antonio/La Pata & Ortega	6,050	7,030	55	168	420.5
47. Alipaz & Del Obispo	3,040	3,490	13	32	42.0
48. Camino Capistrano & Del Obispo	5,000	4,600	42	86	168.2
49. Camino Capistrano & San Juan Creek	3,930	4,980	15	48	82.8
50. Valle & San Juan Creek	3,370	3,710	20	33	52.7
51. La Novia & San Juan Creek	3,560	3,470	46	28	72.5
53. Del Obispo & Del Avion	2,820	2,610	14	11	18.9
54. Alipaz & Del Avion	870	700	3	2	1.1
55. Del Obispo & Stonehill	3,070	4,240	12	30	45.6
60. La Pata & Vista Hermosa	4,550	4,670	28	13	52.3
61. Talega & Vista Hermosa	2,230	2,090	4	5	5.4
62. Vera Cruz & Los Mares	1,190	960	3	2	1.5
63. Vera Cruz & Vista Hermosa	3,120	2,960	13	12	21.1
64. La Pata & Pico	5,520	6,300	16	51	113.8
65. Vista Hermosa & Pico	4,000	4,710	7	15	27.4
66. PCH & Camino Capistrano	1,690	2,570	3	5	5.0
67. El Camino Real & Pico	2,380	3,490	4	8	10.4
68. El Camino Real & Cristianitos	960	1,350	2	7	3.2
100. I-5 SB Ramps & Alicia	5,700	6,420	21	48	118.9
101. I-5 NB Ramps & Alicia	6,320	6,200	4	23	46.6
102. I-5 SB Ramps/Cabot & La Paz	3,410	4,580	8	27	41.9
103. I-5 NB Ramps/Muirlands & La Paz	5,230	5,450	46	40	127.4
104. I-5 SB Ramps & Oso	5,350	6,590	19	33	88.6
105. I-5 NB Ramps & Oso	6,480	6,510	42	51	167.8
106. I-5 SB Ramps & Crown Valley	6,670	8,890	27	91	274.7
107. I-5 NB Ramps & Crown Valley	7,810	9,310	24	62	212.4
108. I-5 SB Ramps & Avery	2,810	3,790	9	25	33.3
109. I-5 NB Ramps & Avery	3,140	3,810	16	19	34.1
110. I-5 SB Ramps & Junipero Serra	3,160	3,660	12	21	31.9
111. I-5 NB Ramps & Junipero Serra	3,220	2,910	8	10	15.2
112. I-5 SB Ramps & Ortega	4,450	5,250	33	57	123.9
113. I-5 NB Ramps & Ortega	5,260	5,730	10	14	36.9
114. Camino Capistrano & I-5 SB Ramps	3,610	4,570	24	53	91.3
115. Valle & La Novia/I-5 NB Ramps	2,060	1,910	21	21	23.2
116. Camino Capistrano & Stonehill	4,190	5,800	19	42	89.8
117. I-5 SB Ramps & Las Ramblas	2,880	3,490	2	3	4.5
118. I-5 NB Ramps & Las Ramblas	1,810	1,960	2	3	2.6
119. I-5 SB Ramps & Estrella	2,800	3,300	18	39	49.8
120. I-5 NB Ramps & Estrella	3,350	3,800	3	6	9.1
121. I-5 SB Ramps & Vista Hermosa	2,030	2,730	4	4	5.3

Table F-53 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,350	3,500	5	4	8.5
123. I-5 SB Ramps & Pico	3,450	4,370	40	57	107.5
124. I-5 NB Ramps & Pico	4,610	5,390	46	18	85.9
125. I-5 SB Ramp & El Camino Real	1,630	2,400	4	8	7.1
126. I-5 NB Ramps & El Camino Real	1,420	1,920	3	3	2.8
127. I-5 SB Ramps & Cristianitos	530	670	2	2	0.7
128. I-5 NB Ramps & Cristianitos	970	1,160	3	7	3.1
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,320	2,150	6	7	8.0
151. Greenfield & SR 73 NB Ramps	1,590	1,060	9	3	4.9
152. SR 241 SB Ramps & Santa Margarita	5,130	6,020	30	107	221.7
153. SR 241 NB Ramps & Santa Margarita	7,320	6,330	16	40	102.9
154. SR 241 SB Ramps & Antonio	3,010	4,200	4	19	25.5
155. SR 241 NB Ramps & Antonio	4,480	3,850	117	5	150.9
Total	396,200	445,230			9,511.0

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	6,570	7,820	60	53	224.6
2. Jeronimo & Alicia	4,630	5,950	15	30	68.9
3. Trabuco & Alicia	4,080	5,060	14	20	44.0
4. Marguerite & Alicia	3,420	3,630	9	14	22.7
5. Olympiad & Alicia	3,310	3,710	21	18	37.9
6. Santa Margarita & Alicia	3,840	4,960	4	32	48.4
7. Marguerite & Trabuco	2,460	2,970	10	13	17.6
8. Marguerite & Jeronimo	3,670	3,620	39	15	54.8
9. Olympiad & Jeronimo	1,840	2,040	4	4	4.3
10. Marguerite & La Paz	3,990	5,100	9	28	49.6
11. Olympiad & La Paz	2,170	2,220	8	9	10.4
12. Empresa & Santa Margarita	5,740	4,940	37	28	97.4
13. Empresa & Banderas	3,130	2,590	60	19	65.8
14. Empresa & Antonio	3,960	3,610	6	6	12.6
15. Banderas & Antonio	4,800	3,860	24	24	57.7
16. Cabot & Paseo de Valencia	1,420	1,930	3	8	5.5
17. Cabot & Oso	5,120	6,190	19	69	145.7
18. Marguerite & Oso	6,830	6,930	32	21	101.1
19. Felipe & Oso	6,430	7,050	51	123	332.0
20. Antonio & Oso	8,990	8,250	100	83	439.9
21. Marguerite & Felipe	3,440	3,920	20	72	97.5
22. Moulton & Crown Valley	5,450	6,260	11	21	53.2
23. Greenfield & Crown Valley	4,380	5,840	33	55	129.4
24. Cabot & Crown Valley	5,240	6,830	15	57	130.0
25. Forbes & Crown Valley	5,540	6,700	40	72	195.6
26. Puerta Real & Crown Valley	7,060	9,060	37	77	266.3
27. El Regateo & Crown Valley	6,380	7,760	24	51	152.5
28. Los Altos & Crown Valley	6,230	7,300	25	69	183.2
29. Bellogente & Crown Valley	6,010	6,950	24	23	84.5
30. Marguerite & Crown Valley	9,080	10,130	120	113	620.6
31. Antonio & Crown Valley	7,990	9,440	77	91	409.5
32. Golden Lantern & Paseo de Colinas	4,590	3,970	30	9	48.2
33. Cabot & Paseo de Colinas	1,730	1,820	4	4	3.9
34. Cm Capistrano & Paseo de Colinas	1,360	2,090	4	5	4.4
35. Camino Capistrano & Avery	2,340	3,020	14	25	30.1
36. Marguerite & Avery	3,450	4,420	20	53	84.2
37. Golden Lantern & Marina Hills	5,300	5,090	27	16	62.4
39. Camino Capistrano & Junipero Serra	3,100	3,660	44	11	49.1
40. Rancho Viejo & Junipero Serra	2,820	2,470	13	8	15.7
41. Camino Capistrano & Oso Road	2,170	1,840	12	5	9.8
42. Camino Capistrano & Ortega	1,530	1,630	5	7	5.3
43. Del Obispo & Ortega	3,250	3,770	9	15	23.8

Table F-54 (cont)

2025 INTERSECTION DELAY SUMMARY – FEC-ULTIMATE ALTERNATIVE
(BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,490	5,440	28	67	143.9
45. La Novia & Ortega	4,160	4,230	30	32	72.3
46. Antonio/La Pata & Ortega	5,440	6,410	51	138	322.8
47. Alipaz & Del Obispo	3,040	3,470	12	37	45.8
48. Camino Capistrano & Del Obispo	4,850	4,530	40	83	158.3
49. Camino Capistrano & San Juan Creek	3,910	4,880	14	44	74.9
50. Valle & San Juan Creek	3,290	3,640	13	33	45.2
51. La Novia & San Juan Creek	3,540	3,340	42	24	63.6
53. Del Obispo & Del Avion	2,770	2,520	13	9	16.3
54. Alipaz & Del Avion	870	690	3	2	1.1
55. Del Obispo & Stonehill	3,070	4,210	13	25	40.3
60. La Pata & Vista Hermosa	4,300	4,330	23	12	41.9
61. Talega & Vista Hermosa	2,210	2,040	4	4	4.7
62. Vera Cruz & Los Mares	1,160	930	3	2	1.5
63. Vera Cruz & Vista Hermosa	3,050	2,900	12	10	18.2
64. La Pata & Pico	5,440	6,240	13	48	102.8
65. Vista Hermosa & Pico	4,020	4,760	8	15	28.8
66. PCH & Camino Capistrano	1,640	2,480	3	5	4.8
67. El Camino Real & Pico	2,330	3,440	4	7	9.3
68. El Camino Real & Cristianitos	1,050	1,410	3	8	4.0
100. I-5 SB Ramps & Alicia	5,710	6,320	19	39	98.6
101. I-5 NB Ramps & Alicia	6,010	6,150	5	23	47.6
102. I-5 SB Ramps/Cabot & La Paz	3,210	4,450	6	21	31.3
103. I-5 NB Ramps/Muirlands & La Paz	4,480	5,190	24	33	77.4
104. I-5 SB Ramps & Oso	5,220	6,360	19	37	92.9
105. I-5 NB Ramps & Oso	6,090	6,420	32	51	145.1
106. I-5 SB Ramps & Crown Valley	6,500	8,710	25	91	265.3
107. I-5 NB Ramps & Crown Valley	7,760	9,240	27	62	217.3
108. I-5 SB Ramps & Avery	2,950	3,660	11	24	33.4
109. I-5 NB Ramps & Avery	3,210	3,710	23	18	39.1
110. I-5 SB Ramps & Junipero Serra	3,180	3,600	12	16	26.6
111. I-5 NB Ramps & Junipero Serra	3,240	2,870	9	9	15.3
112. I-5 SB Ramps & Ortega	4,380	5,290	30	57	120.3
113. I-5 NB Ramps & Ortega	5,160	5,710	9	14	35.1
114. Camino Capistrano & I-5 SB Ramps	3,610	4,570	24	53	91.3
115. Valle & La Novia/I-5 NB Ramps	1,940	1,950	20	24	23.8
116. Camino Capistrano & Stonehill	4,220	5,840	18	42	89.2
117. I-5 SB Ramps & Las Ramblas	2,890	3,520	2	3	4.5
118. I-5 NB Ramps & Las Ramblas	1,810	1,990	2	3	2.7
119. I-5 SB Ramps & Estrella	2,810	3,330	18	42	52.9
120. I-5 NB Ramps & Estrella	3,360	3,800	3	6	9.1
121. I-5 SB Ramps & Vista Hermosa	1,980	2,670	3	4	4.6

Table F-54 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,260	3,470	5	4	8.4
123. I-5 SB Ramps & Pico	3,480	4,390	42	57	110.1
124. I-5 NB Ramps & Pico	4,570	5,400	42	16	77.3
125. I-5 SB Ramp & El Camino Real	1,630	2,390	4	8	7.1
126. I-5 NB Ramps & El Camino Real	1,390	1,900	3	3	2.7
127. I-5 SB Ramps & Cristianitos	540	690	2	2	0.7
128. I-5 NB Ramps & Cristianitos	1,020	1,210	3	8	3.5
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,500	2,260	9	8	11.3
151. Greenfield & SR 73 NB Ramps	1,640	1,170	9	3	5.1
152. SR 241 SB Ramps & Santa Margarita	5,500	6,530	60	177	412.7
153. SR 241 NB Ramps & Santa Margarita	7,800	7,150	24	46	143.4
154. SR 241 SB Ramps & Antonio	3,740	4,420	8	25	39.0
155. SR 241 NB Ramps & Antonio	5,130	3,900	198	6	288.7
Total	383,820	430,610			8,336.9

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,270	8,290	64	67	283.5
2. Jeronimo & Alicia	5,010	6,330	48	42	140.7
3. Trabuco & Alicia	4,570	5,710	35	67	150.7
4. Marguerite & Alicia	3,840	3,990	12	14	28.3
5. Olympiad & Alicia	3,460	3,710	12	10	21.8
6. Santa Margarita & Alicia	4,870	6,240	13	42	90.4
7. Marguerite & Trabuco	2,900	3,330	25	37	54.4
8. Marguerite & Jeronimo	4,040	4,050	42	18	67.4
9. Olympiad & Jeronimo	1,610	1,770	5	3	3.7
10. Marguerite & La Paz	4,350	5,440	12	48	87.0
11. Olympiad & La Paz	1,980	2,300	7	12	11.5
12. Empresa & Santa Margarita	6,510	5,970	104	69	302.5
13. Empresa & Banderas	3,290	2,890	40	25	56.6
14. Empresa & Antonio	3,840	3,570	11	5	16.7
15. Banderas & Antonio	4,720	3,820	23	20	51.4
16. Cabot & Paseo de Valencia	1,710	2,080	6	12	9.8
17. Cabot & Oso	5,480	6,640	19	86	187.5
18. Marguerite & Oso	7,080	7,410	35	33	136.8
19. Felipe & Oso	6,130	6,860	39	94	245.5
20. Antonio & Oso	9,190	8,480	130	127	631.0
21. Marguerite & Felipe	3,340	3,890	16	42	60.2
22. Moulton & Crown Valley	5,960	6,880	20	33	96.2
23. Greenfield & Crown Valley	4,750	6,330	33	42	117.4
24. Cabot & Crown Valley	5,880	7,320	24	72	185.6
25. Forbes & Crown Valley	5,790	7,070	51	86	250.9
26. Puerta Real & Crown Valley	6,990	8,810	37	72	248.0
27. El Regateo & Crown Valley	6,240	7,400	23	48	138.5
28. Los Altos & Crown Valley	6,090	6,820	23	62	156.4
29. Bellogente & Crown Valley	5,860	6,400	21	18	66.2
30. Marguerite & Crown Valley	8,910	9,650	117	86	520.1
31. Antonio & Crown Valley	6,250	7,070	37	86	233.1
32. Golden Lantern & Paseo de Colinas	5,170	4,630	94	39	185.2
33. Cabot & Paseo de Colinas	2,230	2,360	5	6	7.0
34. Cm Capistrano & Paseo de Colinas	1,680	2,690	4	14	12.3
35. Camino Capistrano & Avery	1,900	2,860	3	8	7.9
36. Marguerite & Avery	3,490	4,380	24	46	79.2
37. Golden Lantern & Marina Hills	4,530	4,290	44	40	103.0
39. Camino Capistrano & Junipero Serra	2,320	2,740	51	55	74.7
40. Rancho Viejo & Junipero Serra	2,620	2,480	8	7	10.6
41. Camino Capistrano & Oso Road	1,960	1,580	5	3	4.0
42. Camino Capistrano & Ortega	2,010	2,040	24	14	21.3
43. Del Obispo & Ortega	3,810	4,120	14	23	41.1

Table F-55 (cont)
2025 INTERSECTION DELAY SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,760	5,460	23	62	130.8
45. La Novia & Ortega	4,530	4,340	25	48	89.3
46. Antonio/La Pata & Ortega	3,520	3,870	200	198	408.4
47. Alipaz & Del Obispo	3,220	3,640	20	19	37.1
48. Camino Capistrano & Del Obispo	5,590	5,210	75	97	256.8
49. Camino Capistrano & San Juan Creek	3,680	4,370	10	21	35.7
50. Valle & San Juan Creek	2,740	3,000	60	42	80.7
51. La Novia & San Juan Creek	2,910	2,630	88	60	115.0
53. Del Obispo & Del Avion	2,970	2,830	18	11	23.5
54. Alipaz & Del Avion	990	820	3	3	1.5
55. Del Obispo & Stonehill	3,130	4,270	60	67	131.6
60. La Pata & Vista Hermosa	3,540	3,680	21	13	33.9
61. Talega & Vista Hermosa	2,900	2,940	9	20	23.6
62. Vera Cruz & Los Mares	1,150	1,100	3	2	1.6
63. Vera Cruz & Vista Hermosa	3,780	3,710	42	48	93.6
64. La Pata & Pico	4,460	4,920	11	30	54.6
65. Vista Hermosa & Pico	4,190	4,820	14	42	72.5
66. PCH & Camino Capistrano	1,750	2,790	9	55	47.0
67. El Camino Real & Pico	2,380	3,570	18	67	78.3
68. El Camino Real & Cristianitos	480	740	2	2	0.7
100. I-5 SB Ramps & Alicia	5,760	6,540	23	48	124.0
101. I-5 NB Ramps & Alicia	6,330	6,360	4	23	47.7
102. I-5 SB Ramps/Cabot & La Paz	3,450	4,530	13	42	65.3
103. I-5 NB Ramps/Muirlands & La Paz	5,320	5,460	48	42	134.6
104. I-5 SB Ramps & Oso	5,470	6,640	19	35	93.4
105. I-5 NB Ramps & Oso	6,360	6,550	35	53	158.3
106. I-5 SB Ramps & Crown Valley	6,750	8,390	21	67	195.5
107. I-5 NB Ramps & Crown Valley	7,820	8,920	28	53	192.1
108. I-5 SB Ramps & Avery	2,620	3,540	21	64	78.2
109. I-5 NB Ramps & Avery	2,940	3,600	51	97	138.7
110. I-5 SB Ramps & Junipero Serra	2,660	3,090	9	18	22.1
111. I-5 NB Ramps & Junipero Serra	2,800	2,680	6	7	9.9
112. I-5 SB Ramps & Ortega	5,170	5,590	62	77	208.6
113. I-5 NB Ramps & Ortega	5,820	5,940	32	30	101.2
114. Camino Capistrano & I-5 SB Ramps	3,740	4,390	33	42	85.5
115. Valle & La Novia/I-5 NB Ramps	2,100	2,070	42	37	45.8
116. Camino Capistrano & Stonehill	4,410	5,760	110	194	445.2
117. I-5 SB Ramps & Las Ramblas	2,810	3,420	2	3	4.4
118. I-5 NB Ramps & Las Ramblas	1,820	1,880	2	2	2.1
119. I-5 SB Ramps & Estrella	2,760	3,500	18	48	60.5
120. I-5 NB Ramps & Estrella	3,390	4,830	3	8	13.6
121. I-5 SB Ramps & Vista Hermosa	1,930	2,520	4	7	7.0

Table F-55 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,200	3,310	4	4	7.2
123. I-5 SB Ramps & Pico	3,290	4,390	18	100	138.4
124. I-5 NB Ramps & Pico	4,390	4,720	120	91	265.6
125. I-5 SB Ramp & El Camino Real	1,660	2,580	3	10	8.6
126. I-5 NB Ramps & El Camino Real	1,570	2,130	3	4	3.7
127. I-5 SB Ramps & Cristianitos	470	560	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	740	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,380	2,210	6	6	7.7
151. Greenfield & SR 73 NB Ramps	1,530	1,150	9	5	5.4
152. SR 241 SB Ramps & Santa Margarita	5,370	6,190	33	104	228.0
153. SR 241 NB Ramps & Santa Margarita	7,380	6,450	200	40	481.7
154. SR 241 SB Ramps & Antonio	3,170	4,190	5	21	28.8
155. SR 241 NB Ramps & Antonio	4,690	3,980	200	6	267.2
Total	386,690	430,290			10,592.9

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,220	8,210	60	67	273.1
2. Jeronimo & Alicia	4,940	6,270	21	32	84.6
3. Trabuco & Alicia	4,550	5,670	16	24	58.0
4. Marguerite & Alicia	3,770	3,910	8	14	23.6
5. Olympiad & Alicia	3,710	4,120	30	19	52.7
6. Santa Margarita & Alicia	4,800	6,250	13	40	86.8
7. Marguerite & Trabuco	2,790	3,130	16	21	30.7
8. Marguerite & Jeronimo	3,980	3,810	39	18	62.2
9. Olympiad & Jeronimo	2,050	2,150	8	4	6.9
10. Marguerite & La Paz	4,210	5,350	12	48	85.4
11. Olympiad & La Paz	2,260	2,650	6	15	14.8
12. Empresa & Santa Margarita	6,410	5,920	107	72	308.9
13. Empresa & Banderas	3,270	2,830	35	24	50.7
14. Empresa & Antonio	3,800	3,540	10	4	14.5
15. Banderas & Antonio	4,760	3,800	21	18	46.8
16. Cabot & Paseo de Valencia	1,760	2,160	6	16	12.5
17. Cabot & Oso	5,290	6,490	18	83	176.1
18. Marguerite & Oso	6,950	7,240	33	30	124.0
19. Felipe & Oso	6,140	6,870	44	100	265.9
20. Antonio & Oso	9,240	8,460	75	77	373.5
21. Marguerite & Felipe	3,410	3,900	18	44	64.7
22. Moulton & Crown Valley	5,520	6,400	13	24	62.6
23. Greenfield & Crown Valley	4,340	5,800	28	40	98.2
24. Cabot & Crown Valley	5,480	7,040	19	55	136.5
25. Forbes & Crown Valley	5,550	6,890	44	80	220.9
26. Puerta Real & Crown Valley	6,780	8,640	35	69	231.5
27. El Regateo & Crown Valley	6,070	7,240	20	46	126.2
28. Los Altos & Crown Valley	5,910	6,670	20	60	144.0
29. Bellogente & Crown Valley	5,670	6,260	19	16	57.7
30. Marguerite & Crown Valley	8,750	9,440	117	77	486.3
31. Antonio & Crown Valley	6,340	7,050	39	75	215.6
32. Golden Lantern & Paseo de Colinas	4,640	4,130	32	11	53.9
33. Cabot & Paseo de Colinas	1,730	1,850	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,250	2,120	3	5	4.0
35. Camino Capistrano & Avery	2,160	3,050	11	23	26.1
36. Marguerite & Avery	3,460	4,390	21	40	69.0
37. Golden Lantern & Marina Hills	5,460	5,380	35	19	81.5
39. Camino Capistrano & Junipero Serra	3,230	3,820	48	14	57.9
40. Rancho Viejo & Junipero Serra	2,950	2,700	13	10	18.2
41. Camino Capistrano & Oso Road	2,220	1,960	15	6	12.5
42. Camino Capistrano & Ortega	1,640	1,670	7	8	6.9
43. Del Obispo & Ortega	3,280	3,620	9	12	20.3

Table F-56 (cont)
2025 INTERSECTION DELAY SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,840	5,580	35	72	168.4
45. La Novia & Ortega	4,320	4,100	32	27	69.2
46. Antonio/La Pata & Ortega	5,070	5,420	138	77	310.3
47. Alipaz & Del Obispo	3,090	3,480	15	37	48.6
48. Camino Capistrano & Del Obispo	5,060	4,530	39	83	159.3
49. Camino Capistrano & San Juan Creek	3,880	4,840	13	42	70.5
50. Valle & San Juan Creek	3,120	3,540	12	30	39.9
51. La Novia & San Juan Creek	3,520	3,250	37	25	58.7
53. Del Obispo & Del Avion	2,790	2,580	12	10	16.5
54. Alipaz & Del Avion	840	690	3	2	1.1
55. Del Obispo & Stonehill	3,080	4,200	13	25	40.3
60. La Pata & Vista Hermosa	4,220	4,330	25	12	43.7
61. Talega & Vista Hermosa	2,530	2,490	6	7	9.1
62. Vera Cruz & Los Mares	1,120	960	2	2	1.2
63. Vera Cruz & Vista Hermosa	2,770	2,620	9	11	14.9
64. La Pata & Pico	5,020	5,680	13	42	84.4
65. Vista Hermosa & Pico	4,430	5,060	18	37	74.2
66. PCH & Camino Capistrano	1,820	2,710	3	6	6.0
67. El Camino Real & Pico	2,430	3,560	5	10	13.3
68. El Camino Real & Cristianitos	480	750	2	2	0.7
100. I-5 SB Ramps & Alicia	5,690	6,500	23	46	119.4
101. I-5 NB Ramps & Alicia	6,220	6,310	4	23	47.2
102. I-5 SB Ramps/Cabot & La Paz	3,470	4,450	8	24	37.4
103. I-5 NB Ramps/Muirlands & La Paz	5,380	5,380	53	42	142.0
104. I-5 SB Ramps & Oso	5,180	6,430	15	33	80.5
105. I-5 NB Ramps & Oso	6,090	6,410	32	46	136.0
106. I-5 SB Ramps & Crown Valley	6,450	8,220	21	62	179.2
107. I-5 NB Ramps & Crown Valley	7,580	8,540	24	44	154.9
108. I-5 SB Ramps & Avery	2,720	3,740	9	24	31.7
109. I-5 NB Ramps & Avery	3,010	3,590	12	20	30.0
110. I-5 SB Ramps & Junipero Serra	3,240	3,710	13	23	35.4
111. I-5 NB Ramps & Junipero Serra	3,180	3,010	7	12	16.2
112. I-5 SB Ramps & Ortega	4,520	5,120	35	48	112.2
113. I-5 NB Ramps & Ortega	5,370	5,570	9	12	32.0
114. Camino Capistrano & I-5 SB Ramps	3,530	4,450	24	46	80.4
115. Valle & La Novia/I-5 NB Ramps	2,040	1,970	28	27	30.6
116. Camino Capistrano & Stonehill	4,170	5,720	19	39	84.0
117. I-5 SB Ramps & Las Ramblas	2,740	3,380	2	3	4.3
118. I-5 NB Ramps & Las Ramblas	1,640	1,850	2	3	2.5
119. I-5 SB Ramps & Estrella	2,710	3,230	16	35	43.4
120. I-5 NB Ramps & Estrella	3,230	3,740	2	6	8.0
121. I-5 SB Ramps & Vista Hermosa	1,740	2,380	3	4	4.1

Table F-56 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	2,970	2,990	4	3	5.8
123. I-5 SB Ramps & Pico	3,160	4,000	12	83	102.8
124. I-5 NB Ramps & Pico	3,920	4,370	107	91	227.0
125. I-5 SB Ramp & El Camino Real	1,670	2,550	3	7	6.4
126. I-5 NB Ramps & El Camino Real	1,560	2,090	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	570	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	750	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,270	2,020	6	6	7.2
151. Greenfield & SR 73 NB Ramps	1,530	1,020	8	3	4.3
152. SR 241 SB Ramps & Santa Margarita	5,300	6,160	32	104	225.1
153. SR 241 NB Ramps & Santa Margarita	7,360	6,430	18	40	108.2
154. SR 241 SB Ramps & Antonio	3,140	4,170	4	20	26.7
155. SR 241 NB Ramps & Antonio	4,650	3,980	127	6	170.7
Total	383,130	426,110			7,883.2

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,170	8,190	67	62	274.5
2. Jeronimo & Alicia	5,080	6,520	24	39	104.5
3. Trabuco & Alicia	4,760	5,880	23	25	71.2
4. Marguerite & Alicia	3,860	4,050	9	20	32.2
5. Olympiad & Alicia	3,880	4,280	39	27	74.1
6. Santa Margarita & Alicia	5,050	6,350	15	48	105.7
7. Marguerite & Trabuco	2,810	3,190	16	23	32.9
8. Marguerite & Jeronimo	4,200	3,960	51	23	84.8
9. Olympiad & Jeronimo	2,200	2,280	12	5	10.5
10. Marguerite & La Paz	4,220	5,450	12	51	91.3
11. Olympiad & La Paz	2,390	2,620	7	16	16.3
12. Empresa & Santa Margarita	6,720	6,020	117	69	333.8
13. Empresa & Banderas	3,550	2,880	64	25	83.1
14. Empresa & Antonio	3,820	3,550	11	5	16.6
15. Banderas & Antonio	4,960	3,960	24	25	60.6
16. Cabot & Paseo de Valencia	1,780	2,270	6	19	14.9
17. Cabot & Oso	5,460	6,950	23	100	227.9
18. Marguerite & Oso	7,230	7,120	40	35	149.6
19. Felipe & Oso	6,690	7,530	57	153	426.0
20. Antonio & Oso	9,210	8,600	123	91	532.1
21. Marguerite & Felipe	3,580	4,110	21	80	112.2
22. Moulton & Crown Valley	5,670	6,470	15	25	68.6
23. Greenfield & Crown Valley	4,430	5,920	32	48	118.3
24. Cabot & Crown Valley	5,560	7,280	19	60	150.7
25. Forbes & Crown Valley	5,710	7,050	44	80	226.5
26. Puerta Real & Crown Valley	7,020	9,140	40	75	268.4
27. El Regateo & Crown Valley	6,400	7,880	24	60	174.0
28. Los Altos & Crown Valley	6,270	7,380	25	69	185.0
29. Bellogente & Crown Valley	6,070	6,970	25	21	82.8
30. Marguerite & Crown Valley	9,280	10,420	130	123	691.1
31. Antonio & Crown Valley	8,310	9,680	110	86	485.2
32. Golden Lantern & Paseo de Colinas	4,730	4,110	35	12	59.7
33. Cabot & Paseo de Colinas	1,710	1,880	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,260	2,160	3	5	4.1
35. Camino Capistrano & Avery	2,200	3,130	11	30	32.8
36. Marguerite & Avery	3,570	4,650	27	51	92.7
37. Golden Lantern & Marina Hills	5,480	5,300	33	18	76.7
39. Camino Capistrano & Junipero Serra	3,150	3,750	44	13	52.0
40. Rancho Viejo & Junipero Serra	2,900	2,610	12	9	16.2
41. Camino Capistrano & Oso Road	2,240	1,950	15	6	12.6
42. Camino Capistrano & Ortega	1,610	1,670	7	7	6.4
43. Del Obispo & Ortega	3,250	3,650	9	13	21.3

Table F-57 (cont)
2025 INTERSECTION DELAY SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,620	5,560	32	72	161.2
45. La Novia & Ortega	4,260	4,330	32	35	80.0
46. Antonio/La Pata & Ortega	5,860	6,770	55	145	362.2
47. Alipaz & Del Obispo	3,020	3,480	13	32	41.8
48. Camino Capistrano & Del Obispo	5,000	4,570	42	86	167.5
49. Camino Capistrano & San Juan Creek	3,920	4,930	14	42	72.8
50. Valle & San Juan Creek	3,330	3,670	19	32	50.2
51. La Novia & San Juan Creek	3,570	3,430	48	27	73.3
53. Del Obispo & Del Avion	2,810	2,590	14	11	18.8
54. Alipaz & Del Avion	870	690	3	2	1.1
55. Del Obispo & Stonehill	3,070	4,210	12	27	41.8
60. La Pata & Vista Hermosa	4,510	4,640	30	18	60.8
61. Talega & Vista Hermosa	2,570	2,480	6	7	9.1
62. Vera Cruz & Los Mares	1,140	920	3	2	1.5
63. Vera Cruz & Vista Hermosa	2,850	2,670	10	10	15.3
64. La Pata & Pico	5,090	5,840	14	44	91.2
65. Vista Hermosa & Pico	4,530	5,190	15	48	88.1
66. PCH & Camino Capistrano	1,830	2,670	3	6	6.0
67. El Camino Real & Pico	2,430	3,490	5	9	12.1
68. El Camino Real & Cristianitos	480	730	2	2	0.7
100. I-5 SB Ramps & Alicia	5,670	6,410	20	48	117.0
101. I-5 NB Ramps & Alicia	6,310	6,190	4	23	46.6
102. I-5 SB Ramps/Cabot & La Paz	3,400	4,570	8	25	39.3
103. I-5 NB Ramps/Muirlands & La Paz	5,220	5,450	46	40	127.3
104. I-5 SB Ramps & Oso	5,340	6,560	19	32	86.5
105. I-5 NB Ramps & Oso	6,470	6,480	42	51	167.3
106. I-5 SB Ramps & Crown Valley	6,640	8,870	27	91	274.0
107. I-5 NB Ramps & Crown Valley	7,770	9,280	24	62	211.6
108. I-5 SB Ramps & Avery	2,800	3,760	9	24	32.1
109. I-5 NB Ramps & Avery	3,180	3,800	15	19	33.3
110. I-5 SB Ramps & Junipero Serra	3,160	3,650	12	23	33.9
111. I-5 NB Ramps & Junipero Serra	3,160	2,930	8	10	15.2
112. I-5 SB Ramps & Ortega	4,440	5,200	30	53	113.6
113. I-5 NB Ramps & Ortega	5,230	5,710	9	13	33.7
114. Camino Capistrano & I-5 SB Ramps	3,590	4,520	25	53	91.5
115. Valle & La Novia/I-5 NB Ramps	2,030	1,910	20	21	22.4
116. Camino Capistrano & Stonehill	4,180	5,770	19	42	89.4
117. I-5 SB Ramps & Las Ramblas	2,820	3,480	2	3	4.5
118. I-5 NB Ramps & Las Ramblas	1,780	1,980	2	3	2.6
119. I-5 SB Ramps & Estrella	2,760	3,270	16	37	45.9
120. I-5 NB Ramps & Estrella	3,330	3,750	3	6	9.0
121. I-5 SB Ramps & Vista Hermosa	1,810	2,460	3	4	4.2

Table F-57 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-TV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	2,970	3,090	4	3	5.9
123. I-5 SB Ramps & Pico	3,190	4,070	12	104	128.2
124. I-5 NB Ramps & Pico	3,980	4,450	113	94	241.1
125. I-5 SB Ramp & El Camino Real	1,730	2,580	4	10	9.1
126. I-5 NB Ramps & El Camino Real	1,540	2,090	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	550	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	730	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,310	2,120	6	6	7.4
151. Greenfield & SR 73 NB Ramps	1,570	1,060	9	3	4.8
152. SR 241 SB Ramps & Santa Margarita	5,090	5,990	30	107	220.5
153. SR 241 NB Ramps & Santa Margarita	7,280	6,310	15	39	98.7
154. SR 241 SB Ramps & Antonio	3,040	4,170	4	18	24.2
155. SR 241 NB Ramps & Antonio	4,520	3,850	117	6	153.3
Total	393,040	440,820			9,540.6

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,270	8,310	62	67	279.9
2. Jeronimo & Alicia	5,010	6,370	48	44	144.7
3. Trabuco & Alicia	4,590	5,710	39	67	156.0
4. Marguerite & Alicia	3,840	4,020	12	14	28.4
5. Olympiad & Alicia	3,460	3,740	12	10	21.9
6. Santa Margarita & Alicia	4,840	6,240	13	44	93.7
7. Marguerite & Trabuco	2,900	3,350	25	37	54.6
8. Marguerite & Jeronimo	4,030	4,020	42	18	67.1
9. Olympiad & Jeronimo	1,610	1,770	5	3	3.7
10. Marguerite & La Paz	4,340	5,440	12	46	84.0
11. Olympiad & La Paz	1,980	2,280	7	11	10.8
12. Empresa & Santa Margarita	6,490	5,960	97	69	289.1
13. Empresa & Banderas	3,280	2,870	40	25	56.4
14. Empresa & Antonio	3,820	3,600	11	5	16.7
15. Banderas & Antonio	4,710	3,840	21	19	47.7
16. Cabot & Paseo de Valencia	1,720	2,150	5	15	11.3
17. Cabot & Oso	5,460	6,700	18	86	187.4
18. Marguerite & Oso	7,120	7,430	35	33	137.3
19. Felipe & Oso	6,150	6,880	40	91	242.2
20. Antonio & Oso	9,210	8,510	123	127	614.9
21. Marguerite & Felipe	3,360	3,890	16	42	60.3
22. Moulton & Crown Valley	6,020	6,890	21	35	102.1
23. Greenfield & Crown Valley	4,820	6,330	35	42	120.7
24. Cabot & Crown Valley	5,880	7,420	24	75	193.8
25. Forbes & Crown Valley	5,780	7,100	48	86	246.7
26. Puerta Real & Crown Valley	7,010	8,880	37	67	237.3
27. El Regateo & Crown Valley	6,290	7,460	23	48	139.7
28. Los Altos & Crown Valley	6,110	6,890	23	62	157.7
29. Bellogente & Crown Valley	5,890	6,470	21	18	66.7
30. Marguerite & Crown Valley	8,960	9,740	117	86	523.9
31. Antonio & Crown Valley	6,260	7,100	37	88	237.9
32. Golden Lantern & Paseo de Colinas	5,200	4,640	94	39	186.0
33. Cabot & Paseo de Colinas	2,270	2,380	6	6	7.8
34. Cm Capistrano & Paseo de Colinas	1,690	2,680	4	14	12.3
35. Camino Capistrano & Avery	1,920	2,850	3	8	7.9
36. Marguerite & Avery	3,520	4,420	24	48	82.4
37. Golden Lantern & Marina Hills	4,560	4,330	46	40	106.4
39. Camino Capistrano & Junipero Serra	2,380	2,770	57	57	81.5
40. Rancho Viejo & Junipero Serra	2,650	2,510	8	7	10.8
41. Camino Capistrano & Oso Road	2,010	1,610	5	3	4.1
42. Camino Capistrano & Ortega	2,070	2,060	28	15	24.7
43. Del Obispo & Ortega	3,810	4,120	15	23	42.2

Table F-58 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,780	5,480	23	62	131.3
45. La Novia & Ortega	4,610	4,400	28	53	100.6
46. Antonio/La Pata & Ortega	3,660	4,000	200	200	425.6
47. Alipaz & Del Obispo	3,220	3,640	20	18	36.1
48. Camino Capistrano & Del Obispo	5,700	5,280	83	100	278.1
49. Camino Capistrano & San Juan Creek	3,780	4,410	12	24	42.0
50. Valle & San Juan Creek	2,780	3,030	60	44	83.4
51. La Novia & San Juan Creek	2,940	2,680	91	67	124.2
53. Del Obispo & Del Avion	3,000	2,860	18	11	23.7
54. Alipaz & Del Avion	990	840	3	3	1.5
55. Del Obispo & Stonehill	3,150	4,280	62	64	130.3
60. La Pata & Vista Hermosa	3,600	3,670	21	14	35.3
61. Talega & Vista Hermosa	2,580	2,490	8	9	12.0
62. Vera Cruz & Los Mares	1,210	1,230	3	3	2.0
63. Vera Cruz & Vista Hermosa	4,100	4,130	51	67	134.9
64. La Pata & Pico	5,170	5,700	16	46	95.8
65. Vista Hermosa & Pico	4,020	4,680	11	18	35.7
66. PCH & Camino Capistrano	1,800	2,820	9	53	46.0
67. El Camino Real & Pico	2,450	3,620	23	64	80.0
68. El Camino Real & Cristianitos	3,280	4,680	20	48	80.6
100. I-5 SB Ramps & Alicia	5,770	6,540	23	46	120.4
101. I-5 NB Ramps & Alicia	6,340	6,400	4	23	47.9
102. I-5 SB Ramps/Cabot & La Paz	3,500	4,560	14	44	69.3
103. I-5 NB Ramps/Muirlands & La Paz	5,360	5,470	51	42	139.8
104. I-5 SB Ramps & Oso	5,490	6,630	19	35	93.4
105. I-5 NB Ramps & Oso	6,390	6,590	35	53	159.1
106. I-5 SB Ramps & Crown Valley	6,750	8,400	21	67	195.7
107. I-5 NB Ramps & Crown Valley	7,810	8,950	27	55	195.3
108. I-5 SB Ramps & Avery	2,650	3,540	21	64	78.4
109. I-5 NB Ramps & Avery	2,960	3,610	55	97	142.5
110. I-5 SB Ramps & Junipero Serra	2,720	3,120	10	18	23.2
111. I-5 NB Ramps & Junipero Serra	2,830	2,710	5	7	9.2
112. I-5 SB Ramps & Ortega	5,210	5,620	67	80	221.9
113. I-5 NB Ramps & Ortega	5,860	5,940	33	30	103.2
114. Camino Capistrano & I-5 SB Ramps	3,800	4,420	37	44	93.1
115. Valle & La Novia/I-5 NB Ramps	2,170	2,100	48	40	52.3
116. Camino Capistrano & Stonehill	4,460	5,800	120	200	470.9
117. I-5 SB Ramps & Las Ramblas	2,770	3,390	2	2	3.4
118. I-5 NB Ramps & Las Ramblas	1,780	1,830	2	2	2.0
119. I-5 SB Ramps & Estrella	2,780	3,520	19	53	66.5
120. I-5 NB Ramps & Estrella	3,430	4,910	3	8	13.8
121. I-5 SB Ramps & Vista Hermosa	2,190	2,820	4	6	7.1

Table F-58 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,590	3,710	6	6	12.2
123. I-5 SB Ramps & Pico	3,600	4,730	48	88	163.6
124. I-5 NB Ramps & Pico	4,950	5,730	53	25	112.7
125. I-5 SB Ramp & El Camino Real	1,610	2,410	4	9	7.8
126. I-5 NB Ramps & El Camino Real	1,470	1,960	3	3	2.9
127. I-5 SB Ramps & Cristianitos	1,220	2,560	2	2	2.1
128. I-5 NB Ramps & Cristianitos	3,290	4,540	28	33	67.2
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,420	2,210	7	6	8.4
151. Greenfield & SR 73 NB Ramps	1,580	1,140	10	4	5.7
152. SR 241 SB Ramps & Santa Margarita	5,370	6,190	33	107	233.2
153. SR 241 NB Ramps & Santa Margarita	7,370	6,440	200	40	481.0
154. SR 241 SB Ramps & Antonio	3,150	4,210	4	21	28.1
155. SR 241 NB Ramps & Antonio	4,660	3,980	200	6	265.5
Total	396,840	444,420			10,801.4

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,180	8,210	60	64	265.6
2. Jeronimo & Alicia	4,960	6,270	21	32	84.7
3. Trabuco & Alicia	4,580	5,670	18	24	60.7
4. Marguerite & Alicia	3,790	3,910	8	14	23.6
5. Olympiad & Alicia	3,730	4,150	32	20	56.2
6. Santa Margarita & Alicia	4,790	6,260	14	42	91.7
7. Marguerite & Trabuco	2,800	3,140	16	21	30.8
8. Marguerite & Jeronimo	3,990	3,820	39	16	60.2
9. Olympiad & Jeronimo	2,050	2,170	8	4	7.0
10. Marguerite & La Paz	4,230	5,340	12	46	82.3
11. Olympiad & La Paz	2,270	2,680	6	16	15.7
12. Empresa & Santa Margarita	6,420	5,920	107	69	304.3
13. Empresa & Banderas	3,250	2,840	33	24	48.7
14. Empresa & Antonio	3,820	3,580	11	4	15.7
15. Banderas & Antonio	4,820	3,880	23	19	51.3
16. Cabot & Paseo de Valencia	1,760	2,170	6	16	12.6
17. Cabot & Oso	5,330	6,490	19	83	177.8
18. Marguerite & Oso	6,990	7,240	33	30	124.4
19. Felipe & Oso	6,150	6,880	44	94	254.8
20. Antonio & Oso	9,310	8,560	75	77	377.0
21. Marguerite & Felipe	3,410	3,940	16	46	65.5
22. Moulton & Crown Valley	5,520	6,420	14	24	64.3
23. Greenfield & Crown Valley	4,350	5,800	28	40	98.3
24. Cabot & Crown Valley	5,490	7,090	19	57	141.2
25. Forbes & Crown Valley	5,540	6,900	44	80	221.0
26. Puerta Real & Crown Valley	6,800	8,660	35	72	239.3
27. El Regateo & Crown Valley	6,070	7,290	19	46	125.2
28. Los Altos & Crown Valley	5,930	6,720	20	60	144.9
29. Bellogente & Crown Valley	5,700	6,310	20	16	59.7
30. Marguerite & Crown Valley	8,800	9,510	117	80	497.3
31. Antonio & Crown Valley	6,410	7,120	40	80	229.4
32. Golden Lantern & Paseo de Colinas	4,640	4,120	32	10	52.7
33. Cabot & Paseo de Colinas	1,730	1,850	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,250	2,120	3	5	4.0
35. Camino Capistrano & Avery	2,160	3,040	11	23	26.0
36. Marguerite & Avery	3,470	4,420	23	40	71.3
37. Golden Lantern & Marina Hills	5,470	5,400	35	20	83.2
39. Camino Capistrano & Junipero Serra	3,250	3,800	51	13	59.8
40. Rancho Viejo & Junipero Serra	2,950	2,720	13	10	18.2
41. Camino Capistrano & Oso Road	2,240	1,940	15	6	12.6
42. Camino Capistrano & Ortega	1,650	1,680	8	9	7.9
43. Del Obispo & Ortega	3,280	3,660	9	12	20.4

Table F-59 (cont)

2025 INTERSECTION DELAY SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,860	5,610	35	75	173.8
45. La Novia & Ortega	4,330	4,110	33	28	71.7
46. Antonio/La Pata & Ortega	5,280	5,570	138	83	330.8
47. Alipaz & Del Obispo	3,070	3,490	15	37	48.7
48. Camino Capistrano & Del Obispo	5,060	4,560	39	83	160.0
49. Camino Capistrano & San Juan Creek	3,900	4,870	14	42	72.0
50. Valle & San Juan Creek	3,120	3,560	12	30	40.1
51. La Novia & San Juan Creek	3,520	3,310	37	25	59.2
53. Del Obispo & Del Avion	2,790	2,580	12	11	17.2
54. Alipaz & Del Avion	850	690	3	2	1.1
55. Del Obispo & Stonehill	3,070	4,200	13	25	40.3
60. La Pata & Vista Hermosa	4,340	4,520	25	14	47.7
61. Talega & Vista Hermosa	2,300	2,110	5	4	5.5
62. Vera Cruz & Los Mares	1,170	1,040	3	2	1.6
63. Vera Cruz & Vista Hermosa	3,110	2,970	14	14	23.6
64. La Pata & Pico	5,310	6,070	16	44	97.8
65. Vista Hermosa & Pico	3,840	4,440	7	11	21.0
66. PCH & Camino Capistrano	1,750	2,680	3	6	5.9
67. El Camino Real & Pico	2,420	3,630	5	9	12.4
68. El Camino Real & Cristianitos	2,770	4,210	11	35	49.4
100. I-5 SB Ramps & Alicia	5,700	6,500	23	46	119.5
101. I-5 NB Ramps & Alicia	6,240	6,310	4	23	47.2
102. I-5 SB Ramps/Cabot & La Paz	3,470	4,480	8	24	37.6
103. I-5 NB Ramps/Muirlands & La Paz	5,310	5,380	46	42	130.6
104. I-5 SB Ramps & Oso	5,210	6,410	16	32	80.1
105. I-5 NB Ramps & Oso	6,130	6,430	30	46	133.2
106. I-5 SB Ramps & Crown Valley	6,450	8,230	20	64	182.1
107. I-5 NB Ramps & Crown Valley	7,600	8,550	24	46	159.9
108. I-5 SB Ramps & Avery	2,720	3,730	9	23	30.6
109. I-5 NB Ramps & Avery	3,030	3,600	12	21	31.1
110. I-5 SB Ramps & Junipero Serra	3,250	3,680	14	21	34.1
111. I-5 NB Ramps & Junipero Serra	3,190	2,990	7	12	16.2
112. I-5 SB Ramps & Ortega	4,540	5,140	35	51	117.0
113. I-5 NB Ramps & Ortega	5,380	5,610	9	13	33.7
114. Camino Capistrano & I-5 SB Ramps	3,540	4,470	24	48	83.2
115. Valle & La Novia/I-5 NB Ramps	2,020	1,970	30	25	30.5
116. Camino Capistrano & Stonehill	4,200	5,740	19	40	85.9
117. I-5 SB Ramps & Las Ramblas	2,780	3,360	2	3	4.3
118. I-5 NB Ramps & Las Ramblas	1,650	1,840	2	3	2.5
119. I-5 SB Ramps & Estrella	2,740	3,290	16	37	46.0
120. I-5 NB Ramps & Estrella	3,250	3,790	3	6	9.0
121. I-5 SB Ramps & Vista Hermosa	1,960	2,650	3	4	4.6

Table F-59 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-CV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,330	3,440	5	4	8.4
123. I-5 SB Ramps & Pico	3,360	4,400	32	53	94.6
124. I-5 NB Ramps & Pico	4,680	5,430	48	18	89.6
125. I-5 SB Ramp & El Camino Real	1,610	2,380	3	8	6.6
126. I-5 NB Ramps & El Camino Real	1,480	1,940	3	4	3.4
127. I-5 SB Ramps & Cristianitos	1,000	2,330	2	2	1.9
128. I-5 NB Ramps & Cristianitos	2,810	4,060	15	19	33.1
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,270	2,030	6	6	7.2
151. Greenfield & SR 73 NB Ramps	1,530	1,020	8	3	4.3
152. SR 241 SB Ramps & Santa Margarita	5,300	6,160	33	107	231.7
153. SR 241 NB Ramps & Santa Margarita	7,340	6,440	18	40	108.3
154. SR 241 SB Ramps & Antonio	3,120	4,200	4	20	26.8
155. SR 241 NB Ramps & Antonio	4,650	3,960	134	6	179.7
Total	390,460	437,940			7,888.3

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,400	8,410	62	72	295.6
2. Jeronimo & Alicia	5,090	6,440	48	46	150.2
3. Trabuco & Alicia	4,640	5,740	44	67	163.5
4. Marguerite & Alicia	3,880	4,070	13	16	32.1
5. Olympiad & Alicia	3,500	3,720	12	11	23.0
6. Santa Margarita & Alicia	4,790	6,210	13	42	89.7
7. Marguerite & Trabuco	2,940	3,430	30	40	62.6
8. Marguerite & Jeronimo	4,090	4,110	44	20	72.8
9. Olympiad & Jeronimo	1,640	1,790	5	3	3.8
10. Marguerite & La Paz	4,400	5,480	12	51	92.3
11. Olympiad & La Paz	2,010	2,290	8	10	10.8
12. Empresa & Santa Margarita	6,480	5,940	104	69	301.1
13. Empresa & Banderas	3,310	2,900	39	25	56.0
14. Empresa & Antonio	3,900	3,660	12	5	18.1
15. Banderas & Antonio	4,890	3,970	24	23	58.0
16. Cabot & Paseo de Valencia	1,770	2,230	6	19	14.7
17. Cabot & Oso	5,460	6,810	20	86	193.0
18. Marguerite & Oso	7,220	7,500	37	35	147.1
19. Felipe & Oso	6,260	6,960	42	91	249.0
20. Antonio & Oso	9,460	8,760	48	53	255.1
21. Marguerite & Felipe	3,430	3,960	19	48	70.9
22. Moulton & Crown Valley	6,150	7,020	24	39	117.1
23. Greenfield & Crown Valley	4,900	6,400	37	44	128.6
24. Cabot & Crown Valley	5,970	7,600	27	77	207.3
25. Forbes & Crown Valley	5,840	7,210	51	94	271.0
26. Puerta Real & Crown Valley	7,030	8,980	35	72	247.9
27. El Regateo & Crown Valley	6,330	7,580	21	48	138.0
28. Los Altos & Crown Valley	6,170	7,010	23	62	160.1
29. Bellogente & Crown Valley	5,930	6,580	21	18	67.5
30. Marguerite & Crown Valley	9,070	9,930	117	94	554.1
31. Antonio & Crown Valley	6,410	7,280	44	86	252.3
32. Golden Lantern & Paseo de Colinas	5,300	4,860	110	46	224.0
33. Cabot & Paseo de Colinas	2,260	2,470	5	6	7.3
34. Cm Capistrano & Paseo de Colinas	1,730	2,680	5	13	12.1
35. Camino Capistrano & Avery	1,950	2,860	3	8	8.0
36. Marguerite & Avery	3,730	4,550	33	57	106.2
37. Golden Lantern & Marina Hills	4,680	4,590	53	51	133.9
39. Camino Capistrano & Junipero Serra	2,440	2,930	62	60	90.9
40. Rancho Viejo & Junipero Serra	2,810	2,780	9	10	14.7
41. Camino Capistrano & Oso Road	2,090	1,780	6	3	5.0
42. Camino Capistrano & Ortega	2,220	2,370	37	40	49.2
43. Del Obispo & Ortega	3,910	4,190	19	23	47.4

Table F-60 (cont)
2025 INTERSECTION DELAY SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	6,000	5,590	35	64	157.7
45. La Novia & Ortega	4,910	4,610	30	53	108.8
46. Antonio/La Pata & Ortega	3,880	4,170	7	24	35.3
47. Alipaz & Del Obispo	3,210	3,600	20	16	33.8
48. Camino Capistrano & Del Obispo	5,870	5,570	110	130	380.5
49. Camino Capistrano & San Juan Creek	3,910	4,670	16	33	60.2
50. Valle & San Juan Creek	3,000	3,300	62	44	92.0
51. La Novia & San Juan Creek	3,170	2,880	130	97	192.1
53. Del Obispo & Del Avion	3,070	2,930	20	12	26.8
54. Alipaz & Del Avion	1,000	830	3	3	1.5
55. Del Obispo & Stonehill	3,210	4,330	62	69	138.3
60. La Pata & Vista Hermosa	4,440	4,180	60	32	111.2
61. Talega & Vista Hermosa	2,600	2,620	10	13	16.7
62. Vera Cruz & Los Mares	1,720	1,500	12	4	7.4
63. Vera Cruz & Vista Hermosa	5,000	4,920	88	141	314.9
64. La Pata & Pico	5,890	5,920	39	33	118.1
65. Vista Hermosa & Pico	3,980	4,340	12	24	42.2
66. PCH & Camino Capistrano	2,200	3,310	25	77	86.1
67. El Camino Real & Pico	2,860	3,820	28	67	93.3
68. El Camino Real & Cristianitos	480	750	2	2	0.7
100. I-5 SB Ramps & Alicia	5,810	6,560	23	46	120.9
101. I-5 NB Ramps & Alicia	6,390	6,410	4	24	49.8
102. I-5 SB Ramps/Cabot & La Paz	3,620	4,550	16	44	71.7
103. I-5 NB Ramps/Muirlands & La Paz	5,490	5,500	53	42	145.0
104. I-5 SB Ramps & Oso	5,460	6,660	18	33	88.4
105. I-5 NB Ramps & Oso	6,400	6,680	33	55	160.7
106. I-5 SB Ramps & Crown Valley	6,800	8,420	23	64	193.1
107. I-5 NB Ramps & Crown Valley	7,800	9,020	27	57	201.3
108. I-5 SB Ramps & Avery	2,700	3,470	25	62	78.5
109. I-5 NB Ramps & Avery	3,030	3,580	62	94	145.7
110. I-5 SB Ramps & Junipero Serra	2,740	3,380	11	25	31.8
111. I-5 NB Ramps & Junipero Serra	2,780	3,030	5	9	11.4
112. I-5 SB Ramps & Ortega	5,360	5,620	80	88	256.5
113. I-5 NB Ramps & Ortega	6,030	5,850	120	83	335.9
114. Camino Capistrano & I-5 SB Ramps	3,890	4,540	44	53	114.4
115. Valle & La Novia/I-5 NB Ramps	2,430	2,370	64	72	90.6
116. Camino Capistrano & Stonehill	4,550	5,930	141	200	507.7
117. I-5 SB Ramps & Las Ramblas	2,710	3,310	3	2	4.1
118. I-5 NB Ramps & Las Ramblas	1,810	1,740	2	2	2.0
119. I-5 SB Ramps & Estrella	3,180	3,770	35	67	101.1
120. I-5 NB Ramps & Estrella	3,870	4,430	3	10	15.5
121. I-5 SB Ramps & Vista Hermosa	2,200	3,130	5	11	12.6

Table F-60 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,890	4,160	9	8	19.0
123. I-5 SB Ramps & Pico	3,730	4,920	64	149	269.9
124. I-5 NB Ramps & Pico	5,470	6,180	64	42	169.3
125. I-5 SB Ramp & El Camino Real	1,610	2,580	4	13	11.1
126. I-5 NB Ramps & El Camino Real	1,490	1,980	3	3	2.9
127. I-5 SB Ramps & Cristianitos	470	570	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	750	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,420	2,200	7	6	8.4
151. Greenfield & SR 73 NB Ramps	1,580	1,130	9	4	5.2
152. SR 241 SB Ramps & Santa Margarita	5,300	6,150	33	104	226.3
153. SR 241 NB Ramps & Santa Margarita	7,360	6,420	200	40	480.2
154. SR 241 SB Ramps & Antonio	3,140	4,260	4	21	28.3
155. SR 241 NB Ramps & Antonio	4,670	4,000	200	6	266.1
Total	402,120	445,210			11,449.2

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,300	8,210	64	67	282.6
2. Jeronimo & Alicia	4,990	6,340	21	33	87.2
3. Trabuco & Alicia	4,600	5,670	19	24	62.1
4. Marguerite & Alicia	3,810	3,910	8	14	23.7
5. Olympiad & Alicia	3,760	4,190	32	21	57.9
6. Santa Margarita & Alicia	4,790	6,280	14	40	88.4
7. Marguerite & Trabuco	2,840	3,190	16	23	33.0
8. Marguerite & Jeronimo	4,020	3,860	39	18	62.9
9. Olympiad & Jeronimo	2,090	2,240	9	4	7.7
10. Marguerite & La Paz	4,260	5,330	12	46	82.3
11. Olympiad & La Paz	2,310	2,700	7	14	15.0
12. Empresa & Santa Margarita	6,480	5,980	110	75	322.6
13. Empresa & Banderas	3,330	2,910	39	28	58.7
14. Empresa & Antonio	3,940	3,750	12	5	18.3
15. Banderas & Antonio	5,010	4,080	23	21	55.8
16. Cabot & Paseo de Valencia	1,770	2,210	6	19	14.6
17. Cabot & Oso	5,340	6,590	20	83	181.6
18. Marguerite & Oso	7,020	7,260	33	33	130.9
19. Felipe & Oso	6,190	6,910	46	91	253.8
20. Antonio & Oso	9,610	8,890	80	94	445.7
21. Marguerite & Felipe	3,490	3,980	19	51	74.8
22. Moulton & Crown Valley	5,530	6,550	13	27	69.1
23. Greenfield & Crown Valley	4,340	5,860	27	42	100.9
24. Cabot & Crown Valley	5,560	7,200	20	60	150.9
25. Forbes & Crown Valley	5,570	6,910	44	80	221.6
26. Puerta Real & Crown Valley	6,870	8,680	35	72	240.4
27. El Regateo & Crown Valley	6,150	7,300	20	46	127.4
28. Los Altos & Crown Valley	5,990	6,720	21	60	146.9
29. Bellogente & Crown Valley	5,750	6,320	20	16	60.0
30. Marguerite & Crown Valley	8,890	9,620	123	83	525.5
31. Antonio & Crown Valley	6,530	7,290	44	77	235.7
32. Golden Lantern & Paseo de Colinas	4,690	4,310	32	12	56.1
33. Cabot & Paseo de Colinas	1,750	1,900	4	4	4.1
34. Cm Capistrano & Paseo de Colinas	1,240	2,150	3	6	4.6
35. Camino Capistrano & Avery	2,130	3,010	9	20	22.0
36. Marguerite & Avery	3,540	4,520	24	39	72.6
37. Golden Lantern & Marina Hills	5,520	5,560	39	24	96.9
39. Camino Capistrano & Junipero Serra	3,300	3,980	57	21	75.5
40. Rancho Viejo & Junipero Serra	2,990	2,910	12	13	20.5
41. Camino Capistrano & Oso Road	2,340	2,160	18	9	17.1
42. Camino Capistrano & Ortega	1,800	1,860	12	11	11.7
43. Del Obispo & Ortega	3,320	3,780	10	16	26.0

Table F-61 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,860	5,660	33	69	162.2
45. La Novia & Ortega	4,380	4,190	30	35	77.2
46. Antonio/La Pata & Ortega	6,300	6,660	145	86	412.9
47. Alipaz & Del Obispo	3,080	3,490	14	35	45.9
48. Camino Capistrano & Del Obispo	5,180	4,830	53	94	202.4
49. Camino Capistrano & San Juan Creek	4,040	4,970	18	42	78.2
50. Valle & San Juan Creek	3,190	3,620	12	37	47.8
51. La Novia & San Juan Creek	3,530	3,300	44	20	61.5
53. Del Obispo & Del Avion	2,830	2,650	12	10	16.8
54. Alipaz & Del Avion	850	690	3	2	1.1
55. Del Obispo & Stonehill	3,110	4,290	14	28	45.5
60. La Pata & Vista Hermosa	6,180	6,170	88	51	238.5
61. Talega & Vista Hermosa	2,320	2,200	6	5	6.9
62. Vera Cruz & Los Mares	1,460	1,270	4	2	2.3
63. Vera Cruz & Vista Hermosa	3,480	3,480	19	21	38.7
64. La Pata & Pico	6,400	6,940	60	88	276.3
65. Vista Hermosa & Pico	3,660	4,150	6	23	32.6
66. PCH & Camino Capistrano	1,760	2,750	3	6	6.1
67. El Camino Real & Pico	2,610	3,650	6	9	13.5
68. El Camino Real & Cristianitos	480	740	2	2	0.7
100. I-5 SB Ramps & Alicia	5,720	6,480	23	44	115.7
101. I-5 NB Ramps & Alicia	6,270	6,310	4	23	47.3
102. I-5 SB Ramps/Cabot & La Paz	3,540	4,470	9	21	34.9
103. I-5 NB Ramps/Muirlands & La Paz	5,440	5,360	51	40	136.6
104. I-5 SB Ramps & Oso	5,200	6,410	14	32	77.2
105. I-5 NB Ramps & Oso	6,130	6,420	28	48	133.3
106. I-5 SB Ramps & Crown Valley	6,470	8,240	21	67	191.1
107. I-5 NB Ramps & Crown Valley	7,640	8,560	25	44	157.7
108. I-5 SB Ramps & Avery	2,690	3,690	9	19	26.2
109. I-5 NB Ramps & Avery	3,000	3,610	12	23	33.1
110. I-5 SB Ramps & Junipero Serra	3,280	3,880	15	27	42.8
111. I-5 NB Ramps & Junipero Serra	3,150	3,180	7	13	17.6
112. I-5 SB Ramps & Ortega	4,600	5,100	39	51	122.1
113. I-5 NB Ramps & Ortega	5,450	5,480	12	14	39.5
114. Camino Capistrano & I-5 SB Ramps	3,670	4,410	28	48	87.3
115. Valle & La Novia/I-5 NB Ramps	2,160	2,100	44	44	52.1
116. Camino Capistrano & Stonehill	4,320	5,790	23	42	95.2
117. I-5 SB Ramps & Las Ramblas	2,720	3,330	2	3	4.3
118. I-5 NB Ramps & Las Ramblas	1,580	1,850	2	3	2.4
119. I-5 SB Ramps & Estrella	2,820	3,320	19	39	50.9
120. I-5 NB Ramps & Estrella	3,580	4,000	3	6	9.7
121. I-5 SB Ramps & Vista Hermosa	2,140	3,120	3	4	5.3

Table F-61 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,750	3,980	9	6	16.0
123. I-5 SB Ramps & Pico	3,780	4,620	37	32	79.9
124. I-5 NB Ramps & Pico	5,440	5,990	57	35	144.4
125. I-5 SB Ramp & El Camino Real	1,630	2,490	4	12	10.1
126. I-5 NB Ramps & El Camino Real	1,540	1,980	3	3	2.9
127. I-5 SB Ramps & Cristianitos	470	560	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	740	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,250	2,050	6	6	7.2
151. Greenfield & SR 73 NB Ramps	1,520	1,000	8	3	4.2
152. SR 241 SB Ramps & Santa Margarita	5,290	6,160	32	104	225.0
153. SR 241 NB Ramps & Santa Margarita	7,350	6,410	16	40	103.9
154. SR 241 SB Ramps & Antonio	3,210	4,300	4	19	26.3
155. SR 241 NB Ramps & Antonio	4,690	4,000	141	6	190.4
Total	396,000	440,250			8,708.4

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,290	8,360	64	67	285.2
2. Jeronimo & Alicia	5,020	6,360	48	40	137.6
3. Trabuco & Alicia	4,570	5,720	35	67	150.9
4. Marguerite & Alicia	3,840	4,030	12	14	28.5
5. Olympiad & Alicia	3,450	3,730	12	11	22.9
6. Santa Margarita & Alicia	4,850	6,230	13	42	90.2
7. Marguerite & Trabuco	2,920	3,360	27	37	56.4
8. Marguerite & Jeronimo	4,050	4,030	42	19	68.5
9. Olympiad & Jeronimo	1,620	1,780	5	3	3.7
10. Marguerite & La Paz	4,360	5,450	12	46	84.2
11. Olympiad & La Paz	1,990	2,300	8	12	12.1
12. Empresa & Santa Margarita	6,470	5,960	97	67	285.3
13. Empresa & Banderas	3,290	2,870	40	25	56.5
14. Empresa & Antonio	3,870	3,610	11	5	16.8
15. Banderas & Antonio	4,710	3,820	21	19	47.6
16. Cabot & Paseo de Valencia	1,720	2,130	5	15	11.3
17. Cabot & Oso	5,470	6,680	18	86	186.9
18. Marguerite & Oso	7,190	7,450	35	33	138.2
19. Felipe & Oso	6,200	6,900	40	91	243.3
20. Antonio & Oso	9,260	8,580	127	127	629.4
21. Marguerite & Felipe	3,370	3,880	16	42	60.2
22. Moulton & Crown Valley	5,990	6,930	21	37	106.2
23. Greenfield & Crown Valley	4,780	6,360	35	42	120.7
24. Cabot & Crown Valley	5,910	7,420	27	72	192.7
25. Forbes & Crown Valley	5,790	7,130	51	88	256.3
26. Puerta Real & Crown Valley	6,970	8,890	35	69	238.2
27. El Regateo & Crown Valley	6,260	7,490	23	48	139.9
28. Los Altos & Crown Valley	6,110	6,910	23	62	158.0
29. Bellogente & Crown Valley	5,870	6,490	21	18	66.7
30. Marguerite & Crown Valley	8,950	9,770	117	86	524.3
31. Antonio & Crown Valley	6,230	7,100	37	88	237.6
32. Golden Lantern & Paseo de Colinas	5,220	4,730	97	42	195.8
33. Cabot & Paseo de Colinas	2,270	2,380	6	6	7.8
34. Cm Capistrano & Paseo de Colinas	1,710	2,680	4	14	12.3
35. Camino Capistrano & Avery	1,930	2,860	3	8	8.0
36. Marguerite & Avery	3,560	4,520	25	48	85.0
37. Golden Lantern & Marina Hills	4,580	4,390	46	42	109.7
39. Camino Capistrano & Junipero Serra	2,420	2,800	62	60	88.3
40. Rancho Viejo & Junipero Serra	2,660	2,650	8	8	11.8
41. Camino Capistrano & Oso Road	2,060	1,620	6	3	4.8
42. Camino Capistrano & Ortega	2,120	2,110	33	19	30.6
43. Del Obispo & Ortega	3,820	4,170	15	24	43.7

Table F-62 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,810	5,510	25	64	138.3
45. La Novia & Ortega	4,610	4,430	28	53	101.1
46. Antonio/La Pata & Ortega	3,680	4,020	200	200	427.8
47. Alipaz & Del Obispo	3,220	3,630	21	16	34.9
48. Camino Capistrano & Del Obispo	5,730	5,340	94	107	308.3
49. Camino Capistrano & San Juan Creek	3,780	4,450	12	25	43.5
50. Valle & San Juan Creek	2,790	3,060	62	44	85.5
51. La Novia & San Juan Creek	2,950	2,720	91	69	126.7
53. Del Obispo & Del Avion	3,010	2,870	18	11	23.8
54. Alipaz & Del Avion	980	840	3	3	1.5
55. Del Obispo & Stonehill	3,150	4,310	62	67	134.5
60. La Pata & Vista Hermosa	4,120	4,600	64	32	114.1
61. Talega & Vista Hermosa	2,760	3,470	10	35	41.4
62. Vera Cruz & Los Mares	1,470	1,490	6	4	4.1
63. Vera Cruz & Vista Hermosa	4,800	5,090	94	141	324.7
64. La Pata & Pico	6,860	7,450	48	42	178.4
65. Vista Hermosa & Pico	5,930	7,330	13	53	129.3
66. PCH & Camino Capistrano	1,790	2,970	9	60	54.0
67. El Camino Real & Pico	2,510	3,730	25	67	86.9
68. El Camino Real & Cristianitos	470	750	2	2	0.7
100. I-5 SB Ramps & Alicia	5,770	6,550	23	48	124.2
101. I-5 NB Ramps & Alicia	6,320	6,400	4	24	49.7
102. I-5 SB Ramps/Cabot & La Paz	3,520	4,560	14	42	66.9
103. I-5 NB Ramps/Muirlands & La Paz	5,350	5,470	48	44	138.2
104. I-5 SB Ramps & Oso	5,510	6,650	19	35	93.7
105. I-5 NB Ramps & Oso	6,420	6,620	33	53	156.3
106. I-5 SB Ramps & Crown Valley	6,750	8,410	21	67	195.9
107. I-5 NB Ramps & Crown Valley	7,780	8,960	25	55	190.9
108. I-5 SB Ramps & Avery	2,670	3,490	23	64	79.1
109. I-5 NB Ramps & Avery	2,970	3,660	57	94	142.6
110. I-5 SB Ramps & Junipero Serra	2,750	3,230	11	21	27.2
111. I-5 NB Ramps & Junipero Serra	2,810	2,800	5	7	9.3
112. I-5 SB Ramps & Ortega	5,200	5,500	67	75	211.4
113. I-5 NB Ramps & Ortega	5,860	5,820	33	32	105.5
114. Camino Capistrano & I-5 SB Ramps	3,820	4,390	39	44	95.0
115. Valle & La Novia/I-5 NB Ramps	2,200	2,160	51	51	61.8
116. Camino Capistrano & Stonehill	4,490	5,810	123	198	473.0
117. I-5 SB Ramps & Las Ramblas	2,750	3,300	2	2	3.4
118. I-5 NB Ramps & Las Ramblas	1,750	1,770	2	2	2.0
119. I-5 SB Ramps & Estrella	2,940	3,510	24	53	71.3
120. I-5 NB Ramps & Estrella	3,580	5,030	3	8	14.2
121. I-5 SB Ramps & Vista Hermosa	2,160	3,240	4	5	6.9

Table F-62 (cont)

2025 INTERSECTION DELAY SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,970	4,350	12	10	25.3
123. I-5 SB Ramps & Pico	3,730	5,640	11	7	22.4
124. I-5 NB Ramps & Pico	6,030	7,340	64	46	201.0
125. I-5 SB Ramp & El Camino Real	1,620	2,540	4	12	10.3
126. I-5 NB Ramps & El Camino Real	1,550	2,100	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	570	2	2	0.6
128. I-5 NB Ramps & Cristianitos	620	750	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,390	2,220	7	6	8.3
151. Greenfield & SR 73 NB Ramps	1,540	1,140	9	4	5.1
152. SR 241 SB Ramps & Santa Margarita	5,350	6,190	33	107	233.0
153. SR 241 NB Ramps & Santa Margarita	7,360	6,450	200	40	480.6
154. SR 241 SB Ramps & Antonio	3,180	4,240	4	21	28.3
155. SR 241 NB Ramps & Antonio	4,700	3,980	200	6	267.7
Total	398,450	447,620			11,221.5

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,240	8,210	62	67	277.5
2. Jeronimo & Alicia	4,970	6,310	21	33	86.8
3. Trabuco & Alicia	4,570	5,670	18	24	60.7
4. Marguerite & Alicia	3,780	3,910	8	13	22.5
5. Olympiad & Alicia	3,710	4,150	30	21	55.1
6. Santa Margarita & Alicia	4,780	6,260	14	40	88.1
7. Marguerite & Trabuco	2,820	3,170	16	23	32.8
8. Marguerite & Jeronimo	4,010	3,840	40	18	63.8
9. Olympiad & Jeronimo	2,050	2,190	8	4	7.0
10. Marguerite & La Paz	4,240	5,350	12	46	82.5
11. Olympiad & La Paz	2,260	2,680	6	15	14.9
12. Empresa & Santa Margarita	6,420	5,920	107	69	304.3
13. Empresa & Banderas	3,260	2,860	37	25	53.4
14. Empresa & Antonio	3,830	3,580	10	4	14.6
15. Banderas & Antonio	4,850	3,900	23	19	51.6
16. Cabot & Paseo de Valencia	1,780	2,210	6	18	14.0
17. Cabot & Oso	5,310	6,570	20	83	181.0
18. Marguerite & Oso	7,010	7,280	33	32	129.0
19. Felipe & Oso	6,180	6,890	46	94	258.9
20. Antonio & Oso	9,340	8,620	72	80	378.4
21. Marguerite & Felipe	3,430	3,930	18	46	67.4
22. Moulton & Crown Valley	5,510	6,490	13	25	65.0
23. Greenfield & Crown Valley	4,340	5,910	28	40	99.4
24. Cabot & Crown Valley	5,530	7,140	19	60	148.2
25. Forbes & Crown Valley	5,580	6,910	44	80	221.8
26. Puerta Real & Crown Valley	6,830	8,690	35	69	233.0
27. El Regateo & Crown Valley	6,090	7,310	19	44	121.5
28. Los Altos & Crown Valley	5,950	6,730	21	60	146.9
29. Bellogente & Crown Valley	5,710	6,330	20	16	59.9
30. Marguerite & Crown Valley	8,810	9,530	120	77	497.5
31. Antonio & Crown Valley	6,380	7,150	40	77	223.8
32. Golden Lantern & Paseo de Colinas	4,640	4,200	30	10	50.3
33. Cabot & Paseo de Colinas	1,740	1,860	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,250	2,110	3	5	4.0
35. Camino Capistrano & Avery	2,140	3,040	9	23	24.8
36. Marguerite & Avery	3,480	4,480	23	39	70.8
37. Golden Lantern & Marina Hills	5,490	5,450	37	21	88.2
39. Camino Capistrano & Junipero Serra	3,270	3,870	53	15	64.3
40. Rancho Viejo & Junipero Serra	2,970	2,830	12	12	19.3
41. Camino Capistrano & Oso Road	2,270	2,030	16	8	14.6
42. Camino Capistrano & Ortega	1,680	1,740	9	9	8.6
43. Del Obispo & Ortega	3,280	3,620	9	12	20.3

Table F-63 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,880	5,660	35	75	175.1
45. La Novia & Ortega	4,340	4,160	32	30	73.2
46. Antonio/La Pata & Ortega	5,250	5,700	134	77	317.3
47. Alipaz & Del Obispo	3,070	3,490	14	37	47.8
48. Camino Capistrano & Del Obispo	5,090	4,620	40	83	163.1
49. Camino Capistrano & San Juan Creek	3,930	4,900	15	40	70.8
50. Valle & San Juan Creek	3,130	3,540	12	28	38.0
51. La Novia & San Juan Creek	3,550	3,360	37	25	59.8
53. Del Obispo & Del Avion	2,800	2,620	12	10	16.6
54. Alipaz & Del Avion	850	700	3	2	1.1
55. Del Obispo & Stonehill	3,080	4,230	13	27	42.8
60. La Pata & Vista Hermosa	4,770	5,160	42	30	98.7
61. Talega & Vista Hermosa	2,440	2,780	6	12	13.3
62. Vera Cruz & Los Mares	1,260	1,140	3	2	1.7
63. Vera Cruz & Vista Hermosa	3,810	3,850	39	39	83.0
64. La Pata & Pico	6,590	7,430	39	67	209.7
65. Vista Hermosa & Pico	5,350	6,390	12	46	99.5
66. PCH & Camino Capistrano	1,740	2,790	3	7	6.9
67. El Camino Real & Pico	2,500	3,720	5	10	13.8
68. El Camino Real & Cristianitos	480	730	2	2	0.7
100. I-5 SB Ramps & Alicia	5,700	6,470	23	46	119.1
101. I-5 NB Ramps & Alicia	6,270	6,280	4	23	47.1
102. I-5 SB Ramps/Cabot & La Paz	3,510	4,460	9	21	34.8
103. I-5 NB Ramps/Muirlands & La Paz	5,380	5,350	48	40	131.2
104. I-5 SB Ramps & Oso	5,220	6,430	15	33	80.7
105. I-5 NB Ramps & Oso	6,150	6,470	28	46	130.5
106. I-5 SB Ramps & Crown Valley	6,470	8,230	21	64	184.1
107. I-5 NB Ramps & Crown Valley	7,590	8,560	24	46	160.0
108. I-5 SB Ramps & Avery	2,710	3,740	9	21	28.6
109. I-5 NB Ramps & Avery	2,990	3,620	12	23	33.1
110. I-5 SB Ramps & Junipero Serra	3,250	3,790	14	25	39.0
111. I-5 NB Ramps & Junipero Serra	3,190	3,070	8	12	17.3
112. I-5 SB Ramps & Ortega	4,550	5,020	37	46	110.9
113. I-5 NB Ramps & Ortega	5,370	5,550	9	13	33.5
114. Camino Capistrano & I-5 SB Ramps	3,550	4,460	23	46	79.7
115. Valle & La Novia/I-5 NB Ramps	2,020	1,970	30	30	33.3
116. Camino Capistrano & Stonehill	4,230	5,750	20	40	87.4
117. I-5 SB Ramps & Las Ramblas	2,770	3,290	2	3	4.3
118. I-5 NB Ramps & Las Ramblas	1,630	1,820	2	3	2.4
119. I-5 SB Ramps & Estrella	2,800	3,260	19	37	48.3
120. I-5 NB Ramps & Estrella	3,290	3,800	3	6	9.1
121. I-5 SB Ramps & Vista Hermosa	2,040	3,110	3	4	5.2

Table F-63 (cont)
 2025 INTERSECTION DELAY SUMMARY – FEC-APV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,800	4,030	12	7	20.5
123. I-5 SB Ramps & Pico	3,430	5,090	8	5	14.7
124. I-5 NB Ramps & Pico	5,520	6,700	44	28	119.6
125. I-5 SB Ramp & El Camino Real	1,580	2,480	3	8	6.8
126. I-5 NB Ramps & El Camino Real	1,520	2,060	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	550	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	730	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,260	2,110	6	6	7.3
151. Greenfield & SR 73 NB Ramps	1,520	1,010	8	3	4.2
152. SR 241 SB Ramps & Santa Margarita	5,310	6,170	33	107	232.1
153. SR 241 NB Ramps & Santa Margarita	7,340	6,420	18	40	108.0
154. SR 241 SB Ramps & Antonio	3,140	4,200	4	19	25.7
155. SR 241 NB Ramps & Antonio	4,690	3,980	138	6	186.4
Total	392,010	440,010			8,115.1

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,220	8,260	64	64	275.2
2. Jeronimo & Alicia	5,010	6,360	46	42	138.2
3. Trabuco & Alicia	4,600	5,720	33	67	148.6
4. Marguerite & Alicia	3,850	4,020	12	14	28.5
5. Olympiad & Alicia	3,490	3,750	12	11	23.1
6. Santa Margarita & Alicia	4,910	6,280	13	44	94.5
7. Marguerite & Trabuco	2,910	3,340	25	37	54.5
8. Marguerite & Jeronimo	4,050	4,050	44	20	72.0
9. Olympiad & Jeronimo	1,620	1,770	4	3	3.3
10. Marguerite & La Paz	4,330	5,520	11	53	94.5
11. Olympiad & La Paz	2,010	2,350	8	14	13.6
12. Empresa & Santa Margarita	6,540	6,000	104	69	303.9
13. Empresa & Banderas	3,330	2,870	39	25	56.0
14. Empresa & Antonio	3,740	3,480	11	4	15.3
15. Banderas & Antonio	4,700	3,790	21	20	48.5
16. Cabot & Paseo de Valencia	1,700	2,080	6	12	9.8
17. Cabot & Oso	5,490	6,580	19	83	180.7
18. Marguerite & Oso	7,060	7,420	33	35	136.9
19. Felipe & Oso	6,180	6,960	42	107	279.0
20. Antonio & Oso	9,190	8,400	123	123	601.0
21. Marguerite & Felipe	3,330	3,840	16	39	56.4
22. Moulton & Crown Valley	5,930	6,890	20	35	99.9
23. Greenfield & Crown Valley	4,780	6,260	35	42	119.5
24. Cabot & Crown Valley	5,810	7,230	24	60	159.2
25. Forbes & Crown Valley	5,750	7,060	48	86	245.3
26. Puerta Real & Crown Valley	6,970	8,860	37	72	248.8
27. El Regateo & Crown Valley	6,220	7,420	23	48	138.7
28. Los Altos & Crown Valley	6,060	6,820	23	62	156.2
29. Bellogente & Crown Valley	5,820	6,400	21	18	66.0
30. Marguerite & Crown Valley	8,870	9,630	113	86	508.5
31. Antonio & Crown Valley	6,220	6,990	39	88	238.3
32. Golden Lantern & Paseo de Colinas	5,160	4,640	94	39	185.0
33. Cabot & Paseo de Colinas	2,220	2,340	5	6	7.0
34. Cm Capistrano & Paseo de Colinas	1,700	2,680	4	14	12.3
35. Camino Capistrano & Avery	1,940	2,860	3	8	8.0
36. Marguerite & Avery	3,440	4,320	23	46	77.2
37. Golden Lantern & Marina Hills	4,500	4,260	44	39	101.2
39. Camino Capistrano & Junipero Serra	2,270	2,640	44	46	61.5
40. Rancho Viejo & Junipero Serra	2,580	2,450	8	7	10.5
41. Camino Capistrano & Oso Road	1,900	1,490	4	3	3.4
42. Camino Capistrano & Ortega	1,980	2,060	20	21	23.0
43. Del Obispo & Ortega	3,830	4,170	15	23	42.6

Table F-64 (cont)
2025 INTERSECTION DELAY SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,740	5,470	23	62	130.9
45. La Novia & Ortega	4,510	4,350	27	51	95.5
46. Antonio/La Pata & Ortega	4,050	4,480	200	200	473.9
47. Alipaz & Del Obispo	3,220	3,630	21	18	36.9
48. Camino Capistrano & Del Obispo	5,560	5,120	69	88	231.7
49. Camino Capistrano & San Juan Creek	3,660	4,340	9	20	33.3
50. Valle & San Juan Creek	2,750	2,980	57	42	78.3
51. La Novia & San Juan Creek	2,850	2,580	83	53	103.7
53. Del Obispo & Del Avion	2,960	2,820	18	10	22.6
54. Alipaz & Del Avion	970	800	3	3	1.5
55. Del Obispo & Stonehill	3,150	4,270	62	69	136.1
60. La Pata & Vista Hermosa	3,850	4,110	33	44	85.5
61. Talega & Vista Hermosa	3,690	3,720	30	37	69.0
62. Vera Cruz & Los Mares	1,120	1,040	3	2	1.5
63. Vera Cruz & Vista Hermosa	3,760	3,640	46	48	96.6
64. La Pata & Pico	4,390	4,920	13	15	36.4
65. Vista Hermosa & Pico	4,050	4,740	12	37	62.2
66. PCH & Camino Capistrano	1,670	2,700	8	51	42.0
67. El Camino Real & Pico	2,350	3,540	18	64	74.7
68. El Camino Real & Cristianitos	490	750	2	2	0.7
100. I-5 SB Ramps & Alicia	5,770	6,560	23	48	124.3
101. I-5 NB Ramps & Alicia	6,340	6,360	4	23	47.7
102. I-5 SB Ramps/Cabot & La Paz	3,410	4,510	13	40	62.4
103. I-5 NB Ramps/Muirlands & La Paz	5,320	5,400	51	40	135.4
104. I-5 SB Ramps & Oso	5,510	6,580	20	33	90.9
105. I-5 NB Ramps & Oso	6,380	6,510	37	53	161.4
106. I-5 SB Ramps & Crown Valley	6,760	8,390	21	69	200.2
107. I-5 NB Ramps & Crown Valley	7,810	8,900	27	55	194.5
108. I-5 SB Ramps & Avery	2,630	3,540	19	64	76.8
109. I-5 NB Ramps & Avery	2,920	3,590	48	97	135.7
110. I-5 SB Ramps & Junipero Serra	2,610	3,000	9	14	18.2
111. I-5 NB Ramps & Junipero Serra	2,720	2,630	5	6	8.2
112. I-5 SB Ramps & Ortega	5,160	5,660	60	80	211.8
113. I-5 NB Ramps & Ortega	5,840	5,970	33	33	108.3
114. Camino Capistrano & I-5 SB Ramps	3,720	4,410	35	42	87.6
115. Valle & La Novia/I-5 NB Ramps	2,100	2,050	33	32	37.5
116. Camino Capistrano & Stonehill	4,380	5,740	107	198	445.9
117. I-5 SB Ramps & Las Ramblas	2,800	3,440	2	3	4.4
118. I-5 NB Ramps & Las Ramblas	1,820	1,920	2	2	2.1
119. I-5 SB Ramps & Estrella	2,770	3,480	19	46	59.1
120. I-5 NB Ramps & Estrella	3,360	4,760	2	7	11.1
121. I-5 SB Ramps & Vista Hermosa	1,920	2,510	4	7	7.0

Table F-64 (cont)

2025 INTERSECTION DELAY SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,120	3,220	4	4	7.0
123. I-5 SB Ramps & Pico	3,260	4,330	16	100	134.8
124. I-5 NB Ramps & Pico	4,350	4,710	123	91	267.7
125. I-5 SB Ramp & El Camino Real	1,710	2,580	3	10	8.6
126. I-5 NB Ramps & El Camino Real	1,600	2,110	4	4	4.1
127. I-5 SB Ramps & Cristianitos	470	570	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	750	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,390	2,210	6	6	7.7
151. Greenfield & SR 73 NB Ramps	1,560	1,150	9	5	5.5
152. SR 241 SB Ramps & Santa Margarita	5,360	6,180	33	107	232.8
153. SR 241 NB Ramps & Santa Margarita	7,360	6,440	200	40	480.4
154. SR 241 SB Ramps & Antonio	3,040	4,110	4	20	26.2
155. SR 241 NB Ramps & Antonio	4,510	3,950	168	6	217.1
Total	386,840	430,620			10,584.6

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,210	8,270	60	69	278.7
2. Jeronimo & Alicia	4,950	6,270	21	32	84.6
3. Trabuco & Alicia	4,540	5,680	16	24	58.0
4. Marguerite & Alicia	3,750	3,920	8	14	23.6
5. Olympiad & Alicia	3,710	4,120	33	21	58.0
6. Santa Margarita & Alicia	4,800	6,240	13	42	90.1
7. Marguerite & Trabuco	2,760	3,130	15	20	28.9
8. Marguerite & Jeronimo	3,960	3,820	44	19	68.6
9. Olympiad & Jeronimo	1,980	2,110	6	4	5.6
10. Marguerite & La Paz	4,260	5,460	12	57	100.7
11. Olympiad & La Paz	2,260	2,670	8	20	19.9
12. Empresa & Santa Margarita	6,400	5,890	104	67	294.5
13. Empresa & Banderas	3,220	2,800	35	24	50.0
14. Empresa & Antonio	3,690	3,380	9	4	13.0
15. Banderas & Antonio	4,680	3,690	20	18	44.5
16. Cabot & Paseo de Valencia	1,750	2,140	6	15	11.8
17. Cabot & Oso	5,310	6,440	19	77	165.8
18. Marguerite & Oso	6,920	7,200	32	32	125.5
19. Felipe & Oso	6,180	6,900	46	104	278.3
20. Antonio & Oso	9,120	8,290	77	67	349.4
21. Marguerite & Felipe	3,380	3,850	16	39	56.7
22. Moulton & Crown Valley	5,490	6,400	13	23	60.7
23. Greenfield & Crown Valley	4,310	5,890	28	42	102.2
24. Cabot & Crown Valley	5,450	6,990	18	55	134.0
25. Forbes & Crown Valley	5,540	6,850	44	72	204.7
26. Puerta Real & Crown Valley	6,780	8,640	35	69	231.5
27. El Regateo & Crown Valley	6,060	7,210	20	44	121.8
28. Los Altos & Crown Valley	5,900	6,650	21	60	145.3
29. Bellogente & Crown Valley	5,670	6,230	20	16	59.2
30. Marguerite & Crown Valley	8,740	9,390	120	75	487.0
31. Antonio & Crown Valley	6,170	6,870	35	83	218.4
32. Golden Lantern & Paseo de Colinas	4,630	4,080	32	9	51.4
33. Cabot & Paseo de Colinas	1,720	1,840	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,250	2,120	3	5	4.0
35. Camino Capistrano & Avery	2,170	3,050	12	24	27.6
36. Marguerite & Avery	3,420	4,320	23	35	63.9
37. Golden Lantern & Marina Hills	5,450	5,360	35	21	84.3
39. Camino Capistrano & Junipero Serra	3,200	3,760	44	13	52.7
40. Rancho Viejo & Junipero Serra	2,860	2,640	12	9	16.1
41. Camino Capistrano & Oso Road	2,190	1,870	13	5	10.5
42. Camino Capistrano & Ortega	1,590	1,630	6	7	5.8
43. Del Obispo & Ortega	3,220	3,630	9	12	20.2

Table F-65 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,860	5,600	30	75	165.5
45. La Novia & Ortega	4,340	4,120	32	28	70.6
46. Antonio/La Pata & Ortega	5,320	5,720	134	80	325.1
47. Alipaz & Del Obispo	3,080	3,480	14	37	47.7
48. Camino Capistrano & Del Obispo	4,950	4,530	40	80	155.7
49. Camino Capistrano & San Juan Creek	3,850	4,820	13	40	67.5
50. Valle & San Juan Creek	3,160	3,550	12	28	38.1
51. La Novia & San Juan Creek	3,510	3,250	33	24	53.8
53. Del Obispo & Del Avion	2,780	2,580	12	10	16.4
54. Alipaz & Del Avion	850	690	3	2	1.1
55. Del Obispo & Stonehill	3,080	4,190	13	25	40.2
60. La Pata & Vista Hermosa	4,450	4,540	39	27	82.3
61. Talega & Vista Hermosa	3,340	3,280	19	14	30.4
62. Vera Cruz & Los Mares	1,080	920	2	2	1.1
63. Vera Cruz & Vista Hermosa	2,690	2,570	9	8	12.4
64. La Pata & Pico	4,980	5,470	14	30	65.0
65. Vista Hermosa & Pico	4,280	4,830	14	30	56.9
66. PCH & Camino Capistrano	1,720	2,670	3	6	5.9
67. El Camino Real & Pico	2,350	3,540	4	9	11.5
68. El Camino Real & Cristianitos	480	750	2	2	0.7
100. I-5 SB Ramps & Alicia	5,670	6,480	21	46	115.9
101. I-5 NB Ramps & Alicia	6,260	6,290	4	23	47.1
102. I-5 SB Ramps/Cabot & La Paz	3,420	4,440	8	24	37.2
103. I-5 NB Ramps/Muirlands & La Paz	5,370	5,440	53	46	148.6
104. I-5 SB Ramps & Oso	5,220	6,340	16	32	79.6
105. I-5 NB Ramps & Oso	6,110	6,330	32	44	131.7
106. I-5 SB Ramps & Crown Valley	6,440	8,240	21	64	184.1
107. I-5 NB Ramps & Crown Valley	7,580	8,530	24	44	154.8
108. I-5 SB Ramps & Avery	2,740	3,700	9	24	31.5
109. I-5 NB Ramps & Avery	3,050	3,550	13	20	30.7
110. I-5 SB Ramps & Junipero Serra	3,190	3,670	12	20	31.0
111. I-5 NB Ramps & Junipero Serra	3,110	2,990	7	11	15.2
112. I-5 SB Ramps & Ortega	4,480	5,160	33	51	114.2
113. I-5 NB Ramps & Ortega	5,380	5,620	9	13	33.7
114. Camino Capistrano & I-5 SB Ramps	3,480	4,460	21	46	77.3
115. Valle & La Novia/I-5 NB Ramps	2,030	1,960	32	25	31.7
116. Camino Capistrano & Stonehill	4,150	5,720	18	39	82.7
117. I-5 SB Ramps & Las Ramblas	2,780	3,390	2	3	4.4
118. I-5 NB Ramps & Las Ramblas	1,670	1,880	2	3	2.5
119. I-5 SB Ramps & Estrella	2,720	3,250	16	37	45.5
120. I-5 NB Ramps & Estrella	3,230	3,750	2	6	8.0
121. I-5 SB Ramps & Vista Hermosa	1,750	2,380	3	4	4.1

Table F-65 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	2,920	2,950	4	3	5.7
123. I-5 SB Ramps & Pico	3,080	3,930	12	83	100.9
124. I-5 NB Ramps & Pico	3,900	4,310	110	94	231.7
125. I-5 SB Ramp & El Camino Real	1,690	2,540	4	7	6.8
126. I-5 NB Ramps & El Camino Real	1,570	2,070	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	570	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	750	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,250	2,130	6	6	7.3
151. Greenfield & SR 73 NB Ramps	1,520	1,030	8	3	4.2
152. SR 241 SB Ramps & Santa Margarita	5,310	6,150	30	104	221.9
153. SR 241 NB Ramps & Santa Margarita	7,340	6,420	16	40	104.0
154. SR 241 SB Ramps & Antonio	3,030	4,010	4	20	25.6
155. SR 241 NB Ramps & Antonio	4,550	3,910	117	6	154.4
Total	386,410	430,000			7,870.9

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,130	8,140	67	60	268.4
2. Jeronimo & Alicia	5,050	6,490	25	39	105.4
3. Trabuco & Alicia	4,790	5,860	21	25	68.6
4. Marguerite & Alicia	3,870	4,020	9	19	30.9
5. Olympiad & Alicia	3,910	4,290	39	25	72.2
6. Santa Margarita & Alicia	5,150	6,350	18	48	110.4
7. Marguerite & Trabuco	2,790	3,160	16	23	32.6
8. Marguerite & Jeronimo	4,150	3,900	46	21	75.8
9. Olympiad & Jeronimo	2,170	2,290	10	5	9.2
10. Marguerite & La Paz	4,210	5,420	12	51	90.8
11. Olympiad & La Paz	2,390	2,630	8	18	18.5
12. Empresa & Santa Margarita	6,810	5,990	120	69	341.8
13. Empresa & Banderas	3,570	2,850	64	25	83.3
14. Empresa & Antonio	3,790	3,480	12	5	17.5
15. Banderas & Antonio	4,940	3,890	24	24	58.9
16. Cabot & Paseo de Valencia	1,760	2,260	6	19	14.9
17. Cabot & Oso	5,580	6,950	25	100	231.8
18. Marguerite & Oso	7,160	7,140	40	33	145.0
19. Felipe & Oso	6,630	7,550	55	153	422.2
20. Antonio & Oso	9,130	8,450	138	86	551.8
21. Marguerite & Felipe	3,510	4,060	21	77	107.3
22. Moulton & Crown Valley	5,600	6,440	14	25	66.5
23. Greenfield & Crown Valley	4,430	5,920	32	51	123.2
24. Cabot & Crown Valley	5,540	7,270	19	62	154.4
25. Forbes & Crown Valley	5,690	7,070	44	80	226.7
26. Puerta Real & Crown Valley	7,030	9,110	40	75	267.9
27. El Regateo & Crown Valley	6,400	7,860	24	60	173.7
28. Los Altos & Crown Valley	6,270	7,360	25	69	184.6
29. Bellogente & Crown Valley	6,070	6,960	25	21	82.8
30. Marguerite & Crown Valley	9,280	10,400	127	123	682.7
31. Antonio & Crown Valley	8,220	9,640	120	77	480.2
32. Golden Lantern & Paseo de Colinas	4,700	4,090	32	11	54.3
33. Cabot & Paseo de Colinas	1,700	1,890	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,250	2,170	3	5	4.1
35. Camino Capistrano & Avery	2,220	3,140	12	30	33.6
36. Marguerite & Avery	3,520	4,610	23	48	84.0
37. Golden Lantern & Marina Hills	5,470	5,270	35	18	79.5
39. Camino Capistrano & Junipero Serra	3,100	3,750	42	12	48.7
40. Rancho Viejo & Junipero Serra	2,790	2,550	11	8	14.2
41. Camino Capistrano & Oso Road	2,200	1,920	14	6	11.8
42. Camino Capistrano & Ortega	1,550	1,660	6	7	5.8
43. Del Obispo & Ortega	3,210	3,680	8	14	21.4

Table F-66 (cont)
2025 INTERSECTION DELAY SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,560	5,450	23	67	137.0
45. La Novia & Ortega	4,210	4,210	27	30	66.7
46. Antonio/La Pata & Ortega	5,480	6,440	48	117	282.4
47. Alipaz & Del Obispo	3,010	3,480	13	37	46.6
48. Camino Capistrano & Del Obispo	4,900	4,560	40	91	169.7
49. Camino Capistrano & San Juan Creek	3,900	4,920	14	44	75.3
50. Valle & San Juan Creek	3,320	3,690	16	33	48.6
51. La Novia & San Juan Creek	3,550	3,410	44	24	66.1
53. Del Obispo & Del Avion	2,810	2,580	14	11	18.8
54. Alipaz & Del Avion	860	700	3	2	1.1
55. Del Obispo & Stonehill	3,060	4,240	13	28	44.0
60. La Pata & Vista Hermosa	4,630	4,860	40	39	104.1
61. Talega & Vista Hermosa	3,440	3,320	15	19	31.9
62. Vera Cruz & Los Mares	1,110	890	2	2	1.1
63. Vera Cruz & Vista Hermosa	2,720	2,600	10	9	14.1
64. La Pata & Pico	4,970	5,690	13	39	79.6
65. Vista Hermosa & Pico	4,530	5,180	16	46	86.3
66. PCH & Camino Capistrano	1,720	2,610	3	6	5.8
67. El Camino Real & Pico	2,340	3,450	4	8	10.3
68. El Camino Real & Cristianitos	480	730	2	2	0.7
100. I-5 SB Ramps & Alicia	5,670	6,380	20	46	113.0
101. I-5 NB Ramps & Alicia	6,320	6,170	4	23	46.4
102. I-5 SB Ramps/Cabot & La Paz	3,370	4,530	7	27	40.5
103. I-5 NB Ramps/Muirlands & La Paz	5,180	5,430	46	39	125.0
104. I-5 SB Ramps & Oso	5,390	6,580	20	33	90.3
105. I-5 NB Ramps & Oso	6,450	6,480	46	53	177.8
106. I-5 SB Ramps & Crown Valley	6,630	8,820	25	88	261.6
107. I-5 NB Ramps & Crown Valley	7,790	9,280	25	62	213.9
108. I-5 SB Ramps & Avery	2,810	3,770	8	25	32.4
109. I-5 NB Ramps & Avery	3,150	3,790	15	18	32.1
110. I-5 SB Ramps & Junipero Serra	3,130	3,630	12	20	30.6
111. I-5 NB Ramps & Junipero Serra	3,090	2,900	7	9	13.3
112. I-5 SB Ramps & Ortega	4,420	5,230	32	53	116.3
113. I-5 NB Ramps & Ortega	5,220	5,680	9	13	33.6
114. Camino Capistrano & I-5 SB Ramps	3,560	4,520	23	48	83.0
115. Valle & La Novia/I-5 NB Ramps	1,990	1,910	21	21	22.8
116. Camino Capistrano & Stonehill	4,160	5,780	16	40	82.7
117. I-5 SB Ramps & Las Ramblas	2,890	3,480	2	3	4.5
118. I-5 NB Ramps & Las Ramblas	1,800	1,980	2	3	2.7
119. I-5 SB Ramps & Estrella	2,780	3,260	16	39	47.7
120. I-5 NB Ramps & Estrella	3,330	3,750	3	5	8.0
121. I-5 SB Ramps & Vista Hermosa	1,810	2,420	3	4	4.2

Table F-66 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	2,890	3,020	4	3	5.7
123. I-5 SB Ramps & Pico	3,110	3,960	12	104	124.8
124. I-5 NB Ramps & Pico	3,950	4,350	110	97	237.9
125. I-5 SB Ramp & El Camino Real	1,720	2,590	4	10	9.1
126. I-5 NB Ramps & El Camino Real	1,540	2,090	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	550	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	730	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,310	2,140	6	6	7.4
151. Greenfield & SR 73 NB Ramps	1,570	1,060	9	3	4.8
152. SR 241 SB Ramps & Santa Margarita	5,150	5,990	32	110	228.8
153. SR 241 NB Ramps & Santa Margarita	7,330	6,350	16	40	103.1
154. SR 241 SB Ramps & Antonio	2,990	4,100	4	18	23.8
155. SR 241 NB Ramps & Antonio	4,460	3,840	117	6	151.4
Total	391,820	439,570			9,437.9

Table F-67 2025 INTERSECTION DELAY SUMMARY – CC-ULTIMATE ALTERNATIVE (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)					
Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	6,460	7,790	62	57	234.6
2. Jeronimo & Alicia	4,610	5,840	18	24	62.0
3. Trabuco & Alicia	4,070	4,950	14	19	42.0
4. Marguerite & Alicia	3,390	3,540	9	12	20.3
5. Olympiad & Alicia	3,260	3,570	16	15	29.4
6. Santa Margarita & Alicia	3,820	4,890	4	30	45.0
7. Marguerite & Trabuco	2,430	2,940	9	13	16.7
8. Marguerite & Jeronimo	3,650	3,570	40	12	52.5
9. Olympiad & Jeronimo	1,760	2,020	4	4	4.2
10. Marguerite & La Paz	3,970	5,090	9	24	43.9
11. Olympiad & La Paz	2,070	2,180	7	8	8.9
12. Empresa & Santa Margarita	5,650	4,860	32	27	86.7
13. Empresa & Banderas	3,090	2,580	53	19	59.1
14. Empresa & Antonio	3,720	3,470	7	5	12.1
15. Banderas & Antonio	4,510	3,680	21	21	47.8
16. Cabot & Paseo de Valencia	1,420	1,940	3	9	6.0
17. Cabot & Oso	5,120	6,160	20	72	151.6
18. Marguerite & Oso	6,740	6,970	32	18	94.8
19. Felipe & Oso	6,230	7,040	46	130	333.8
20. Antonio & Oso	8,640	7,850	100	67	386.1
21. Marguerite & Felipe	3,330	3,880	18	69	91.0
22. Moulton & Crown Valley	5,390	6,190	11	21	52.6
23. Greenfield & Crown Valley	4,290	5,830	30	55	124.8
24. Cabot & Crown Valley	5,180	6,800	15	57	129.3
25. Forbes & Crown Valley	5,520	6,740	39	72	194.6
26. Puerta Real & Crown Valley	6,990	8,970	35	75	254.8
27. El Regateo & Crown Valley	6,320	7,650	24	48	144.1
28. Los Altos & Crown Valley	6,160	7,200	25	69	180.8
29. Bellogente & Crown Valley	5,950	6,820	24	21	79.5
30. Marguerite & Crown Valley	8,950	10,010	113	110	586.8
31. Antonio & Crown Valley	7,380	8,770	100	57	343.9
32. Golden Lantern & Paseo de Colinas	4,640	3,960	32	9	51.1
33. Cabot & Paseo de Colinas	1,720	1,810	4	4	3.9
34. Cm Capistrano & Paseo de Colinas	1,360	2,070	4	5	4.4
35. Camino Capistrano & Avery	2,300	2,980	12	23	26.7
36. Marguerite & Avery	3,350	4,370	21	48	77.8
37. Golden Lantern & Marina Hills	5,280	5,070	28	16	63.6
39. Camino Capistrano & Junipero Serra	3,080	3,660	42	11	47.1
40. Rancho Viejo & Junipero Serra	2,720	2,430	12	7	13.8
41. Camino Capistrano & Oso Road	2,140	1,820	12	5	9.7
42. Camino Capistrano & Ortega	1,480	1,590	5	6	4.7
43. Del Obispo & Ortega	3,240	3,710	9	14	22.5

Table F-67 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,470	5,280	20	55	111.1
45. La Novia & Ortega	4,140	4,040	25	27	59.1
46. Antonio/La Pata & Ortega	4,540	5,420	37	75	159.6
47. Alipaz & Del Obispo	3,070	3,460	13	37	46.6
48. Camino Capistrano & Del Obispo	4,890	4,480	40	80	153.9
49. Camino Capistrano & San Juan Creek	3,890	4,920	13	48	79.6
50. Valle & San Juan Creek	3,270	3,700	13	35	47.8
51. La Novia & San Juan Creek	3,470	3,310	37	19	53.1
53. Del Obispo & Del Avion	2,780	2,490	13	9	16.3
54. Alipaz & Del Avion	880	690	3	2	1.1
55. Del Obispo & Stonehill	3,080	4,230	13	25	40.5
60. La Pata & Vista Hermosa	4,430	4,690	37	60	123.7
61. Talega & Vista Hermosa	3,740	3,590	19	24	43.7
62. Vera Cruz & Los Mares	1,070	840	2	2	1.1
63. Vera Cruz & Vista Hermosa	2,630	2,510	9	8	12.2
64. La Pata & Pico	4,530	5,260	10	25	49.1
65. Vista Hermosa & Pico	4,520	5,190	19	51	97.4
66. PCH & Camino Capistrano	1,700	2,550	3	5	5.0
67. El Camino Real & Pico	2,310	3,400	4	8	10.1
68. El Camino Real & Cristianitos	510	740	2	2	0.7
100. I-5 SB Ramps & Alicia	5,610	6,290	18	40	97.9
101. I-5 NB Ramps & Alicia	5,840	6,150	5	23	47.4
102. I-5 SB Ramps/Cabot & La Paz	3,210	4,370	6	19	28.4
103. I-5 NB Ramps/Muirlands & La Paz	4,420	5,190	21	37	79.1
104. I-5 SB Ramps & Oso	5,140	6,390	19	42	101.7
105. I-5 NB Ramps & Oso	5,940	6,440	30	53	144.3
106. I-5 SB Ramps & Crown Valley	6,470	8,630	25	88	255.9
107. I-5 NB Ramps & Crown Valley	7,710	9,170	25	60	206.4
108. I-5 SB Ramps & Avery	2,920	3,660	10	24	32.5
109. I-5 NB Ramps & Avery	3,160	3,710	20	18	36.1
110. I-5 SB Ramps & Junipero Serra	3,160	3,540	12	14	24.3
111. I-5 NB Ramps & Junipero Serra	3,160	2,820	8	9	14.1
112. I-5 SB Ramps & Ortega	4,440	5,200	32	53	116.0
113. I-5 NB Ramps & Ortega	5,170	5,600	9	15	36.3
114. Camino Capistrano & I-5 SB Ramps	3,560	4,540	23	48	83.3
115. Valle & La Novia/I-5 NB Ramps	1,920	1,960	20	21	22.1
116. Camino Capistrano & Stonehill	4,220	5,820	18	42	89.0
117. I-5 SB Ramps & Las Ramblas	2,910	3,480	2	3	4.5
118. I-5 NB Ramps & Las Ramblas	1,800	1,980	2	3	2.7
119. I-5 SB Ramps & Estrella	2,770	3,280	16	37	46.0
120. I-5 NB Ramps & Estrella	3,330	3,740	3	6	9.0
121. I-5 SB Ramps & Vista Hermosa	1,720	2,390	3	4	4.1

Table F-67 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	2,800	2,960	3	3	4.8
123. I-5 SB Ramps & Pico	3,100	3,960	12	100	120.3
124. I-5 NB Ramps & Pico	3,950	4,360	110	91	230.9
125. I-5 SB Ramp & El Camino Real	1,720	2,590	4	10	9.1
126. I-5 NB Ramps & El Camino Real	1,510	2,080	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	560	2	2	0.6
128. I-5 NB Ramps & Cristianitos	660	740	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,440	2,250	8	8	10.4
151. Greenfield & SR 73 NB Ramps	1,600	1,150	8	3	4.5
152. SR 241 SB Ramps & Santa Margarita	5,500	6,470	55	172	393.2
153. SR 241 NB Ramps & Santa Margarita	7,770	7,140	23	44	136.9
154. SR 241 SB Ramps & Antonio	3,500	4,300	8	24	36.4
155. SR 241 NB Ramps & Antonio	4,920	3,910	177	6	248.4
Total	376,250	422,960			8,040.0

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,240	8,340	60	67	275.9
2. Jeronimo & Alicia	5,020	6,400	46	42	138.8
3. Trabuco & Alicia	4,590	5,690	39	67	155.6
4. Marguerite & Alicia	3,820	3,990	12	14	28.3
5. Olympiad & Alicia	3,460	3,710	12	10	21.8
6. Santa Margarita & Alicia	4,850	6,220	13	42	90.1
7. Marguerite & Trabuco	2,920	3,350	27	37	56.3
8. Marguerite & Jeronimo	4,070	4,080	44	20	72.4
9. Olympiad & Jeronimo	1,620	1,790	5	3	3.7
10. Marguerite & La Paz	4,380	5,540	11	55	98.0
11. Olympiad & La Paz	1,990	2,380	8	15	14.3
12. Empresa & Santa Margarita	6,480	5,930	100	67	290.4
13. Empresa & Banderas	3,300	2,860	37	25	53.8
14. Empresa & Antonio	3,780	3,490	11	4	15.4
15. Banderas & Antonio	4,740	3,800	23	20	51.4
16. Cabot & Paseo de Valencia	1,730	2,140	6	15	11.8
17. Cabot & Oso	5,510	6,680	20	86	190.2
18. Marguerite & Oso	7,150	7,450	35	37	146.1
19. Felipe & Oso	6,220	6,990	40	110	282.7
20. Antonio & Oso	9,230	8,450	127	123	614.3
21. Marguerite & Felipe	3,370	3,880	16	40	58.1
22. Moulton & Crown Valley	5,950	6,960	19	37	102.9
23. Greenfield & Crown Valley	4,790	6,310	35	42	120.2
24. Cabot & Crown Valley	5,860	7,350	24	64	169.7
25. Forbes & Crown Valley	5,770	7,110	51	88	255.5
26. Puerta Real & Crown Valley	6,950	8,870	37	69	241.4
27. El Regateo & Crown Valley	6,230	7,450	23	48	139.1
28. Los Altos & Crown Valley	6,080	6,870	23	62	157.2
29. Bellogente & Crown Valley	5,840	6,450	21	18	66.3
30. Marguerite & Crown Valley	8,920	9,750	113	86	512.9
31. Antonio & Crown Valley	6,250	7,020	39	88	239.3
32. Golden Lantern & Paseo de Colinas	5,210	4,690	97	39	191.2
33. Cabot & Paseo de Colinas	2,260	2,370	5	6	7.1
34. Cm Capistrano & Paseo de Colinas	1,700	2,690	4	14	12.4
35. Camino Capistrano & Avery	1,940	2,850	4	8	8.5
36. Marguerite & Avery	3,500	4,470	24	48	82.9
37. Golden Lantern & Marina Hills	4,550	4,350	46	42	108.9
39. Camino Capistrano & Junipero Serra	2,370	2,790	55	60	82.7
40. Rancho Viejo & Junipero Serra	2,630	2,620	8	8	11.7
41. Camino Capistrano & Oso Road	2,000	1,620	5	3	4.1
42. Camino Capistrano & Ortega	2,040	2,080	28	16	25.1
43. Del Obispo & Ortega	3,810	4,120	14	23	41.1

Table F-68 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,810	5,500	24	64	136.5
45. La Novia & Ortega	4,630	4,430	28	60	109.8
46. Antonio/La Pata & Ortega	4,060	4,540	200	200	477.8
47. Alipaz & Del Obispo	3,210	3,620	21	16	34.8
48. Camino Capistrano & Del Obispo	5,670	5,290	77	104	274.1
49. Camino Capistrano & San Juan Creek	3,750	4,420	12	24	42.0
50. Valle & San Juan Creek	2,760	3,020	60	44	82.9
51. La Novia & San Juan Creek	2,900	2,650	86	60	113.4
53. Del Obispo & Del Avion	2,980	2,870	18	11	23.7
54. Alipaz & Del Avion	970	830	3	3	1.5
55. Del Obispo & Stonehill	3,160	4,290	64	67	136.0
60. La Pata & Vista Hermosa	5,560	5,860	44	46	142.8
61. Talega & Vista Hermosa	4,180	4,660	32	40	88.9
62. Vera Cruz & Los Mares	1,460	1,480	7	4	4.5
63. Vera Cruz & Vista Hermosa	5,300	5,320	21	44	95.9
64. La Pata & Pico	6,200	7,620	30	44	144.8
65. Vista Hermosa & Pico	4,960	6,150	19	44	101.3
66. PCH & Camino Capistrano	1,750	2,870	9	55	48.2
67. El Camino Real & Pico	2,520	3,650	25	64	82.4
68. El Camino Real & Cristianitos	470	750	2	2	0.7
100. I-5 SB Ramps & Alicia	5,750	6,560	23	48	124.2
101. I-5 NB Ramps & Alicia	6,330	6,400	4	24	49.7
102. I-5 SB Ramps/Cabot & La Paz	3,510	4,550	15	42	67.7
103. I-5 NB Ramps/Muirlands & La Paz	5,320	5,470	46	42	131.8
104. I-5 SB Ramps & Oso	5,530	6,640	20	33	91.6
105. I-5 NB Ramps & Oso	6,400	6,590	35	51	155.6
106. I-5 SB Ramps & Crown Valley	6,720	8,420	21	67	195.9
107. I-5 NB Ramps & Crown Valley	7,760	8,930	25	57	195.3
108. I-5 SB Ramps & Avery	2,650	3,510	21	64	77.9
109. I-5 NB Ramps & Avery	2,930	3,650	53	94	138.4
110. I-5 SB Ramps & Junipero Serra	2,700	3,180	10	19	24.3
111. I-5 NB Ramps & Junipero Serra	2,800	2,760	5	7	9.3
112. I-5 SB Ramps & Ortega	5,150	5,450	62	69	193.2
113. I-5 NB Ramps & Ortega	5,830	5,820	32	28	97.1
114. Camino Capistrano & I-5 SB Ramps	3,750	4,420	37	44	92.6
115. Valle & La Novia/I-5 NB Ramps	2,170	2,080	46	39	50.3
116. Camino Capistrano & Stonehill	4,440	5,800	117	200	466.5
117. I-5 SB Ramps & Las Ramblas	2,730	3,330	2	2	3.4
118. I-5 NB Ramps & Las Ramblas	1,760	1,800	2	2	2.0
119. I-5 SB Ramps & Estrella	2,960	3,450	25	51	69.4
120. I-5 NB Ramps & Estrella	3,560	4,970	3	8	14.0
121. I-5 SB Ramps & Vista Hermosa	2,150	3,310	3	4	5.5

Table F-68 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	4,230	4,440	18	12	36.0
123. I-5 SB Ramps & Pico	3,860	5,840	14	8	28.0
124. I-5 NB Ramps & Pico	6,060	7,660	60	57	222.3
125. I-5 SB Ramp & El Camino Real	1,610	2,530	4	12	10.2
126. I-5 NB Ramps & El Camino Real	1,550	2,110	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	570	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	750	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,420	2,190	7	6	8.4
151. Greenfield & SR 73 NB Ramps	1,580	1,140	10	4	5.7
152. SR 241 SB Ramps & Santa Margarita	5,320	6,150	32	104	225.0
153. SR 241 NB Ramps & Santa Margarita	7,350	6,430	200	40	479.8
154. SR 241 SB Ramps & Antonio	3,060	4,120	4	19	25.1
155. SR 241 NB Ramps & Antonio	4,600	3,940	189	6	248.1
Total	399,490	448,820			10,943.7

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,200	8,180	62	64	269.4
2. Jeronimo & Alicia	4,950	6,300	21	32	84.9
3. Trabuco & Alicia	4,550	5,660	16	24	58.0
4. Marguerite & Alicia	3,750	3,910	8	14	23.5
5. Olympiad & Alicia	3,710	4,110	32	20	55.8
6. Santa Margarita & Alicia	4,790	6,200	13	40	86.2
7. Marguerite & Trabuco	2,790	3,130	16	20	29.8
8. Marguerite & Jeronimo	4,000	3,830	48	19	73.5
9. Olympiad & Jeronimo	1,990	2,130	6	4	5.7
10. Marguerite & La Paz	4,260	5,480	12	55	97.9
11. Olympiad & La Paz	2,270	2,710	8	20	20.1
12. Empresa & Santa Margarita	6,390	5,870	104	67	293.8
13. Empresa & Banderas	3,250	2,790	35	24	50.2
14. Empresa & Antonio	3,730	3,390	9	4	13.1
15. Banderas & Antonio	4,730	3,710	21	18	46.1
16. Cabot & Paseo de Valencia	1,760	2,190	6	16	12.7
17. Cabot & Oso	5,320	6,530	20	83	180.1
18. Marguerite & Oso	6,990	7,260	33	32	128.6
19. Felipe & Oso	6,170	6,920	44	107	281.1
20. Antonio & Oso	9,130	8,360	75	72	357.4
21. Marguerite & Felipe	3,410	3,900	18	42	62.6
22. Moulton & Crown Valley	5,510	6,430	14	23	62.5
23. Greenfield & Crown Valley	4,360	5,890	30	40	101.8
24. Cabot & Crown Valley	5,480	7,070	18	57	139.3
25. Forbes & Crown Valley	5,580	6,890	44	80	221.3
26. Puerta Real & Crown Valley	6,820	8,670	35	69	232.5
27. El Regateo & Crown Valley	6,080	7,290	19	46	125.2
28. Los Altos & Crown Valley	5,940	6,710	21	60	146.5
29. Bellogente & Crown Valley	5,710	6,300	20	16	59.7
30. Marguerite & Crown Valley	8,780	9,500	120	80	503.8
31. Antonio & Crown Valley	6,250	7,000	35	83	222.2
32. Golden Lantern & Paseo de Colinas	4,640	4,130	32	11	53.9
33. Cabot & Paseo de Colinas	1,730	1,850	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,250	2,100	3	5	4.0
35. Camino Capistrano & Avery	2,160	3,040	10	23	25.4
36. Marguerite & Avery	3,450	4,420	21	40	69.2
37. Golden Lantern & Marina Hills	5,470	5,400	35	20	83.2
39. Camino Capistrano & Junipero Serra	3,240	3,820	51	15	61.8
40. Rancho Viejo & Junipero Serra	2,920	2,810	13	12	19.9
41. Camino Capistrano & Oso Road	2,240	1,970	15	6	12.6
42. Camino Capistrano & Ortega	1,650	1,680	7	8	6.9
43. Del Obispo & Ortega	3,260	3,600	9	12	20.2

Table F-69 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,900	5,670	33	75	172.2
45. La Novia & Ortega	4,380	4,230	33	33	78.9
46. Antonio/La Pata & Ortega	5,590	6,110	130	83	342.7
47. Alipaz & Del Obispo	3,080	3,490	14	37	47.8
48. Camino Capistrano & Del Obispo	5,050	4,590	39	83	160.5
49. Camino Capistrano & San Juan Creek	3,940	4,940	15	42	74.1
50. Valle & San Juan Creek	3,180	3,620	12	30	40.8
51. La Novia & San Juan Creek	3,590	3,450	39	30	67.6
53. Del Obispo & Del Avion	2,800	2,590	12	11	17.2
54. Alipaz & Del Avion	850	690	3	2	1.1
55. Del Obispo & Stonehill	3,070	4,200	13	25	40.3
60. La Pata & Vista Hermosa	5,860	6,840	37	37	130.5
61. Talega & Vista Hermosa	3,480	3,260	35	21	52.9
62. Vera Cruz & Los Mares	1,280	1,200	3	2	1.7
63. Vera Cruz & Vista Hermosa	4,060	4,080	48	44	104.0
64. La Pata & Pico	6,320	7,710	27	55	165.2
65. Vista Hermosa & Pico	4,880	5,390	35	46	116.3
66. PCH & Camino Capistrano	1,720	2,760	3	6	6.0
67. El Camino Real & Pico	2,530	3,690	6	9	13.4
68. El Camino Real & Cristianitos	470	740	2	2	0.7
100. I-5 SB Ramps & Alicia	5,710	6,490	23	46	119.4
101. I-5 NB Ramps & Alicia	6,240	6,270	4	21	43.5
102. I-5 SB Ramps/Cabot & La Paz	3,470	4,480	9	24	38.5
103. I-5 NB Ramps/Muirlands & La Paz	5,310	5,370	48	42	133.5
104. I-5 SB Ramps & Oso	5,220	6,400	16	32	80.1
105. I-5 NB Ramps & Oso	6,120	6,420	32	44	132.9
106. I-5 SB Ramps & Crown Valley	6,460	8,250	21	64	184.4
107. I-5 NB Ramps & Crown Valley	7,590	8,550	24	44	155.1
108. I-5 SB Ramps & Avery	2,710	3,720	8	21	27.7
109. I-5 NB Ramps & Avery	3,000	3,610	12	23	33.1
110. I-5 SB Ramps & Junipero Serra	3,240	3,780	14	24	37.8
111. I-5 NB Ramps & Junipero Serra	3,190	3,090	8	12	17.4
112. I-5 SB Ramps & Ortega	4,510	5,050	35	48	111.2
113. I-5 NB Ramps & Ortega	5,410	5,580	9	13	33.7
114. Camino Capistrano & I-5 SB Ramps	3,540	4,510	23	48	82.8
115. Valle & La Novia/I-5 NB Ramps	2,040	1,970	30	28	32.3
116. Camino Capistrano & Stonehill	4,210	5,730	19	40	85.9
117. I-5 SB Ramps & Las Ramblas	2,770	3,330	2	3	4.3
118. I-5 NB Ramps & Las Ramblas	1,640	1,840	2	3	2.4
119. I-5 SB Ramps & Estrella	2,790	3,290	18	39	49.6
120. I-5 NB Ramps & Estrella	3,300	3,820	3	6	9.1
121. I-5 SB Ramps & Vista Hermosa	2,070	3,170	3	3	4.4

Table F-69 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-ALPV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	4,060	4,210	18	9	30.8
123. I-5 SB Ramps & Pico	3,600	5,280	9	7	19.3
124. I-5 NB Ramps & Pico	5,630	6,900	44	32	130.1
125. I-5 SB Ramp & El Camino Real	1,570	2,490	3	8	6.8
126. I-5 NB Ramps & El Camino Real	1,520	2,060	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	560	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	740	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,310	2,120	6	6	7.4
151. Greenfield & SR 73 NB Ramps	1,570	1,010	9	3	4.8
152. SR 241 SB Ramps & Santa Margarita	5,290	6,130	32	104	224.1
153. SR 241 NB Ramps & Santa Margarita	7,320	6,420	16	40	103.9
154. SR 241 SB Ramps & Antonio	3,070	4,010	4	19	24.6
155. SR 241 NB Ramps & Antonio	4,610	3,930	127	6	169.2
Total	393,310	441,050			8,188.1

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,380	8,460	60	69	285.2
2. Jeronimo & Alicia	5,120	6,500	51	51	164.6
3. Trabuco & Alicia	4,650	5,770	46	67	166.8
4. Marguerite & Alicia	3,860	4,030	12	14	28.5
5. Olympiad & Alicia	3,470	3,700	12	11	22.9
6. Santa Margarita & Alicia	4,770	6,190	13	40	86.0
7. Marguerite & Trabuco	2,960	3,430	32	40	64.4
8. Marguerite & Jeronimo	4,140	4,140	51	20	81.7
9. Olympiad & Jeronimo	1,630	1,790	5	3	3.8
10. Marguerite & La Paz	4,430	5,590	12	55	100.2
11. Olympiad & La Paz	2,020	2,390	8	16	15.1
12. Empresa & Santa Margarita	6,440	5,930	107	69	305.1
13. Empresa & Banderas	3,350	2,940	39	28	59.2
14. Empresa & Antonio	3,850	3,540	12	4	16.8
15. Banderas & Antonio	4,960	3,990	24	24	59.7
16. Cabot & Paseo de Valencia	1,800	2,230	6	19	14.8
17. Cabot & Oso	5,470	6,810	20	86	193.1
18. Marguerite & Oso	7,200	7,530	33	35	139.2
19. Felipe & Oso	6,280	7,030	44	110	291.6
20. Antonio & Oso	9,470	8,670	138	127	668.9
21. Marguerite & Felipe	3,430	3,970	19	46	68.8
22. Moulton & Crown Valley	6,170	7,010	25	40	120.7
23. Greenfield & Crown Valley	4,900	6,410	37	42	125.1
24. Cabot & Crown Valley	5,980	7,580	27	77	207.0
25. Forbes & Crown Valley	5,820	7,150	48	91	258.3
26. Puerta Real & Crown Valley	7,050	9,040	35	72	249.3
27. El Regateo & Crown Valley	6,350	7,630	23	48	142.3
28. Los Altos & Crown Valley	6,200	7,030	23	64	164.6
29. Bellogente & Crown Valley	5,970	6,610	21	19	69.7
30. Marguerite & Crown Valley	9,110	9,980	117	88	540.0
31. Antonio & Crown Valley	6,570	7,260	48	88	265.1
32. Golden Lantern & Paseo de Colinas	5,310	4,870	107	48	222.8
33. Cabot & Paseo de Colinas	2,270	2,450	5	6	7.2
34. Cm Capistrano & Paseo de Colinas	1,720	2,690	5	14	12.9
35. Camino Capistrano & Avery	1,950	2,840	3	8	7.9
36. Marguerite & Avery	3,750	4,570	33	57	106.7
37. Golden Lantern & Marina Hills	4,690	4,590	53	51	134.1
39. Camino Capistrano & Junipero Serra	2,440	2,910	62	57	88.1
40. Rancho Viejo & Junipero Serra	2,860	2,800	9	11	15.7
41. Camino Capistrano & Oso Road	2,090	1,760	6	3	5.0
42. Camino Capistrano & Ortega	2,210	2,330	35	40	47.4
43. Del Obispo & Ortega	3,870	4,230	16	23	44.2

Table F-70 (cont)
2025 INTERSECTION DELAY SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	6,070	5,710	33	30	103.2
45. La Novia & Ortega	5,110	4,740	35	51	116.8
46. Antonio/La Pata & Ortega	4,080	4,620	7	46	67.0
47. Alipaz & Del Obispo	3,200	3,600	19	18	34.9
48. Camino Capistrano & Del Obispo	5,870	5,560	107	127	370.6
49. Camino Capistrano & San Juan Creek	3,910	4,670	15	35	61.7
50. Valle & San Juan Creek	3,100	3,360	60	55	103.0
51. La Novia & San Juan Creek	3,240	2,920	53	16	60.7
53. Del Obispo & Del Avion	3,050	2,950	19	12	25.9
54. Alipaz & Del Avion	1,010	820	3	3	1.5
55. Del Obispo & Stonehill	3,200	4,340	62	72	141.9
60. La Pata & Vista Hermosa	4,440	4,260	64	37	122.7
61. Talega & Vista Hermosa	2,570	2,600	7	12	13.7
62. Vera Cruz & Los Mares	1,770	1,510	13	5	8.5
63. Vera Cruz & Vista Hermosa	5,030	4,990	91	149	333.7
64. La Pata & Pico	6,140	6,100	42	35	130.9
65. Vista Hermosa & Pico	4,200	4,490	18	27	54.7
66. PCH & Camino Capistrano	2,200	3,290	24	77	85.0
67. El Camino Real & Pico	2,870	3,800	28	64	89.9
68. El Camino Real & Cristianitos	480	750	2	2	0.7
100. I-5 SB Ramps & Alicia	5,800	6,590	23	46	121.3
101. I-5 NB Ramps & Alicia	6,370	6,430	4	24	49.9
102. I-5 SB Ramps/Cabot & La Paz	3,640	4,550	18	44	73.8
103. I-5 NB Ramps/Muirlands & La Paz	5,490	5,470	53	42	144.6
104. I-5 SB Ramps & Oso	5,460	6,650	19	33	89.8
105. I-5 NB Ramps & Oso	6,390	6,680	33	55	160.6
106. I-5 SB Ramps & Crown Valley	6,800	8,440	24	69	207.1
107. I-5 NB Ramps & Crown Valley	7,840	9,070	28	60	212.1
108. I-5 SB Ramps & Avery	2,710	3,450	25	62	78.2
109. I-5 NB Ramps & Avery	3,050	3,610	62	97	149.8
110. I-5 SB Ramps & Junipero Serra	2,760	3,390	11	27	33.9
111. I-5 NB Ramps & Junipero Serra	2,820	3,040	5	9	11.5
112. I-5 SB Ramps & Ortega	5,320	5,700	53	69	187.6
113. I-5 NB Ramps & Ortega	6,020	5,950	39	33	119.8
114. Camino Capistrano & I-5 SB Ramps	3,900	4,550	46	53	116.8
115. Valle & La Novia/I-5 NB Ramps	2,480	2,410	57	75	89.5
116. Camino Capistrano & Stonehill	4,570	5,930	141	200	508.4
117. I-5 SB Ramps & Las Ramblas	2,610	3,430	2	2	3.4
118. I-5 NB Ramps & Las Ramblas	1,900	1,830	3	2	2.6
119. I-5 SB Ramps & Estrella	3,180	3,790	35	67	101.5
120. I-5 NB Ramps & Estrella	3,920	4,480	4	11	18.0
121. I-5 SB Ramps & Vista Hermosa	2,240	3,220	5	12	13.8

Table F-70 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,910	4,300	8	9	19.4
123. I-5 SB Ramps & Pico	3,730	4,950	62	153	274.6
124. I-5 NB Ramps & Pico	5,520	6,300	64	46	178.6
125. I-5 SB Ramp & El Camino Real	1,610	2,590	4	13	11.1
126. I-5 NB Ramps & El Camino Real	1,500	1,990	3	3	2.9
127. I-5 SB Ramps & Cristianitos	470	570	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	750	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,420	2,240	7	7	9.1
151. Greenfield & SR 73 NB Ramps	1,570	1,130	9	4	5.2
152. SR 241 SB Ramps & Santa Margarita	5,250	6,110	32	107	228.3
153. SR 241 NB Ramps & Santa Margarita	7,300	6,400	200	40	476.7
154. SR 241 SB Ramps & Antonio	3,040	4,110	4	19	25.1
155. SR 241 NB Ramps & Antonio	4,640	3,960	200	6	264.4
Total	403,790	447,600			11,590.9

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,240	8,260	60	62	262.9
2. Jeronimo & Alicia	4,980	6,690	21	42	107.1
3. Trabuco & Alicia	4,550	5,680	16	24	58.1
4. Marguerite & Alicia	3,780	3,920	8	14	23.6
5. Olympiad & Alicia	3,740	4,140	33	20	57.3
6. Santa Margarita & Alicia	4,760	6,230	14	40	87.7
7. Marguerite & Trabuco	2,840	3,170	16	23	32.9
8. Marguerite & Jeronimo	4,030	3,910	40	19	65.4
9. Olympiad & Jeronimo	2,110	2,200	9	4	7.7
10. Marguerite & La Paz	4,260	5,500	12	57	101.3
11. Olympiad & La Paz	2,320	2,750	6	19	18.4
12. Empresa & Santa Margarita	6,420	5,900	110	69	309.3
13. Empresa & Banderas	3,290	2,880	35	28	54.4
14. Empresa & Antonio	3,800	3,460	11	4	15.5
15. Banderas & Antonio	4,880	3,880	23	20	52.7
16. Cabot & Paseo de Valencia	1,790	2,210	6	19	14.6
17. Cabot & Oso	5,360	6,540	20	83	180.6
18. Marguerite & Oso	7,010	7,310	33	33	131.3
19. Felipe & Oso	6,210	6,950	44	110	288.3
20. Antonio & Oso	9,320	8,590	80	88	417.1
21. Marguerite & Felipe	3,460	3,950	19	44	66.5
22. Moulton & Crown Valley	5,530	6,540	13	27	69.0
23. Greenfield & Crown Valley	4,320	5,850	28	42	101.9
24. Cabot & Crown Valley	5,520	7,130	20	60	149.5
25. Forbes & Crown Valley	5,570	6,930	44	80	222.1
26. Puerta Real & Crown Valley	6,840	8,730	35	69	233.8
27. El Regateo & Crown Valley	6,130	7,330	20	44	123.6
28. Los Altos & Crown Valley	5,970	6,740	21	60	147.2
29. Bellogente & Crown Valley	5,740	6,340	20	16	60.1
30. Marguerite & Crown Valley	8,850	9,610	120	80	508.6
31. Antonio & Crown Valley	6,460	7,220	30	55	164.1
32. Golden Lantern & Paseo de Colinas	4,690	4,270	32	12	55.9
33. Cabot & Paseo de Colinas	1,740	1,870	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,240	2,120	3	5	4.0
35. Camino Capistrano & Avery	2,140	3,000	9	20	22.0
36. Marguerite & Avery	3,560	4,490	27	39	75.3
37. Golden Lantern & Marina Hills	5,510	5,520	39	23	95.0
39. Camino Capistrano & Junipero Serra	3,300	3,980	57	21	75.5
40. Rancho Viejo & Junipero Serra	2,940	2,790	11	12	18.3
41. Camino Capistrano & Oso Road	2,330	2,140	18	8	16.4
42. Camino Capistrano & Ortega	1,750	1,860	11	11	11.0
43. Del Obispo & Ortega	3,310	3,680	9	15	23.6

Table F-71 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,880	5,560	32	72	163.5
45. La Novia & Ortega	4,490	4,230	30	53	99.7
46. Antonio/La Pata & Ortega	6,480	7,340	51	53	199.9
47. Alipaz & Del Obispo	3,070	3,450	15	33	44.4
48. Camino Capistrano & Del Obispo	5,190	4,820	51	94	199.4
49. Camino Capistrano & San Juan Creek	4,070	5,070	18	46	85.1
50. Valle & San Juan Creek	3,350	3,870	13	51	66.9
51. La Novia & San Juan Creek	3,620	3,410	55	19	73.3
53. Del Obispo & Del Avion	2,820	2,650	12	11	17.5
54. Alipaz & Del Avion	850	690	3	2	1.1
55. Del Obispo & Stonehill	3,110	4,300	14	28	45.5
60. La Pata & Vista Hermosa	6,270	6,340	86	53	243.1
61. Talega & Vista Hermosa	2,180	2,090	5	7	7.1
62. Vera Cruz & Los Mares	1,450	1,310	4	2	2.3
63. Vera Cruz & Vista Hermosa	3,520	3,610	20	27	46.6
64. La Pata & Pico	6,750	7,320	32	62	186.1
65. Vista Hermosa & Pico	3,830	4,440	8	35	51.7
66. PCH & Camino Capistrano	1,770	2,740	3	6	6.0
67. El Camino Real & Pico	2,590	3,630	6	8	12.4
68. El Camino Real & Cristianitos	470	740	2	2	0.7
100. I-5 SB Ramps & Alicia	5,710	6,460	23	44	115.4
101. I-5 NB Ramps & Alicia	6,250	6,280	4	23	47.1
102. I-5 SB Ramps/Cabot & La Paz	3,540	4,470	9	23	37.4
103. I-5 NB Ramps/Muirlands & La Paz	5,410	5,380	48	40	131.9
104. I-5 SB Ramps & Oso	5,220	6,390	16	32	80.0
105. I-5 NB Ramps & Oso	6,140	6,420	30	44	129.6
106. I-5 SB Ramps & Crown Valley	6,480	8,250	21	64	184.5
107. I-5 NB Ramps & Crown Valley	7,630	8,580	24	46	160.5
108. I-5 SB Ramps & Avery	2,690	3,650	9	18	25.0
109. I-5 NB Ramps & Avery	3,010	3,590	11	23	32.1
110. I-5 SB Ramps & Junipero Serra	3,290	3,890	15	28	44.0
111. I-5 NB Ramps & Junipero Serra	3,130	3,130	7	13	17.4
112. I-5 SB Ramps & Ortega	4,600	5,100	39	51	122.1
113. I-5 NB Ramps & Ortega	5,470	5,510	11	15	39.7
114. Camino Capistrano & I-5 SB Ramps	3,710	4,460	30	53	96.6
115. Valle & La Novia/I-5 NB Ramps	2,290	2,280	25	33	36.8
116. Camino Capistrano & Stonehill	4,350	5,800	24	44	99.9
117. I-5 SB Ramps & Las Ramblas	2,750	3,420	2	3	4.4
118. I-5 NB Ramps & Las Ramblas	1,610	1,900	2	3	2.5
119. I-5 SB Ramps & Estrella	2,820	3,340	19	40	52.0
120. I-5 NB Ramps & Estrella	3,540	4,050	3	6	9.7
121. I-5 SB Ramps & Vista Hermosa	2,120	3,170	3	4	5.3

Table F-71 (cont)
 2025 INTERSECTION DELAY SUMMARY – CC-OHV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,790	4,070	12	7	20.5
123. I-5 SB Ramps & Pico	3,770	4,620	37	28	74.7
124. I-5 NB Ramps & Pico	5,510	6,090	60	39	157.8
125. I-5 SB Ramp & El Camino Real	1,630	2,490	4	12	10.1
126. I-5 NB Ramps & El Camino Real	1,550	1,970	3	3	2.9
127. I-5 SB Ramps & Cristianitos	470	560	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	740	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,250	2,050	6	6	7.2
151. Greenfield & SR 73 NB Ramps	1,520	1,010	8	3	4.2
152. SR 241 SB Ramps & Santa Margarita	5,260	6,090	32	107	227.8
153. SR 241 NB Ramps & Santa Margarita	7,290	6,390	15	39	99.6
154. SR 241 SB Ramps & Antonio	3,060	4,050	4	19	24.8
155. SR 241 NB Ramps & Antonio	4,610	3,950	130	6	173.1
Total	395,880	441,560			8,366.4

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,240	8,290	64	67	283.0
2. Jeronimo & Alicia	5,000	6,340	48	42	140.6
3. Trabuco & Alicia	4,580	5,720	37	67	153.5
4. Marguerite & Alicia	3,820	4,010	12	14	28.3
5. Olympiad & Alicia	3,470	3,760	12	11	23.1
6. Santa Margarita & Alicia	4,900	6,290	13	44	94.6
7. Marguerite & Trabuco	2,900	3,330	25	35	52.5
8. Marguerite & Jeronimo	4,030	4,030	44	19	70.5
9. Olympiad & Jeronimo	1,620	1,770	5	3	3.7
10. Marguerite & La Paz	4,340	5,470	12	48	87.4
11. Olympiad & La Paz	1,990	2,300	8	12	12.1
12. Empresa & Santa Margarita	6,550	6,000	104	69	304.2
13. Empresa & Banderas	3,320	2,880	39	25	56.0
14. Empresa & Antonio	3,790	3,530	11	4	15.5
15. Banderas & Antonio	4,690	3,810	21	20	48.5
16. Cabot & Paseo de Valencia	1,700	2,080	5	12	9.3
17. Cabot & Oso	5,470	6,610	20	80	177.3
18. Marguerite & Oso	7,070	7,410	33	33	132.7
19. Felipe & Oso	6,160	6,870	39	97	251.8
20. Antonio & Oso	9,210	8,530	117	117	576.6
21. Marguerite & Felipe	3,330	3,860	16	39	56.6
22. Moulton & Crown Valley	5,940	6,860	20	32	94.0
23. Greenfield & Crown Valley	4,760	6,260	35	42	119.3
24. Cabot & Crown Valley	5,820	7,280	24	64	168.2
25. Forbes & Crown Valley	5,760	7,080	48	86	245.9
26. Puerta Real & Crown Valley	6,950	8,840	37	72	248.2
27. El Regateo & Crown Valley	6,200	7,390	23	48	138.1
28. Los Altos & Crown Valley	6,050	6,820	23	62	156.1
29. Bellogente & Crown Valley	5,810	6,390	21	18	65.8
30. Marguerite & Crown Valley	8,840	9,620	117	86	517.1
31. Antonio & Crown Valley	6,170	6,960	35	86	226.3
32. Golden Lantern & Paseo de Colinas	5,160	4,640	94	39	185.0
33. Cabot & Paseo de Colinas	2,230	2,360	5	6	7.0
34. Cm Capistrano & Paseo de Colinas	1,680	2,680	4	14	12.3
35. Camino Capistrano & Avery	1,930	2,850	3	8	7.9
36. Marguerite & Avery	3,440	4,340	21	46	75.5
37. Golden Lantern & Marina Hills	4,500	4,250	44	39	101.0
39. Camino Capistrano & Junipero Serra	2,290	2,630	46	46	62.9
40. Rancho Viejo & Junipero Serra	2,570	2,470	8	7	10.5
41. Camino Capistrano & Oso Road	1,920	1,480	4	3	3.4
42. Camino Capistrano & Ortega	1,980	2,050	21	21	23.5
43. Del Obispo & Ortega	3,830	4,190	15	23	42.7

Table F-72 (cont)
2025 INTERSECTION DELAY SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,650	5,450	21	62	126.8
45. La Novia & Ortega	4,450	4,330	24	48	87.4
46. Antonio/La Pata & Ortega	3,770	4,100	200	200	437.2
47. Alipaz & Del Obispo	3,230	3,640	21	19	38.1
48. Camino Capistrano & Del Obispo	5,570	5,130	69	91	236.4
49. Camino Capistrano & San Juan Creek	3,670	4,320	9	20	33.2
50. Valle & San Juan Creek	2,760	2,990	57	42	78.6
51. La Novia & San Juan Creek	2,890	2,600	91	60	116.4
53. Del Obispo & Del Avion	2,960	2,820	18	10	22.6
54. Alipaz & Del Avion	980	810	3	3	1.5
55. Del Obispo & Stonehill	3,150	4,250	64	64	131.6
60. La Pata & Vista Hermosa	3,640	3,710	23	14	37.7
61. Talega & Vista Hermosa	3,080	3,020	13	20	27.9
62. Vera Cruz & Los Mares	1,130	1,050	3	2	1.5
63. Vera Cruz & Vista Hermosa	3,770	3,680	42	48	93.1
64. La Pata & Pico	4,340	4,900	11	28	51.4
65. Vista Hermosa & Pico	4,140	4,900	14	51	85.5
66. PCH & Camino Capistrano	1,680	2,710	8	53	43.6
67. El Camino Real & Pico	2,350	3,530	16	62	71.2
68. El Camino Real & Cristianitos	480	750	2	2	0.7
100. I-5 SB Ramps & Alicia	5,760	6,560	23	48	124.3
101. I-5 NB Ramps & Alicia	6,340	6,380	4	24	49.6
102. I-5 SB Ramps/Cabot & La Paz	3,440	4,470	13	40	62.1
103. I-5 NB Ramps/Muirlands & La Paz	5,340	5,380	51	40	135.4
104. I-5 SB Ramps & Oso	5,480	6,640	20	35	95.0
105. I-5 NB Ramps & Oso	6,370	6,520	35	51	154.3
106. I-5 SB Ramps & Crown Valley	6,750	8,400	21	69	200.4
107. I-5 NB Ramps & Crown Valley	7,790	8,900	25	55	190.1
108. I-5 SB Ramps & Avery	2,620	3,530	20	64	77.3
109. I-5 NB Ramps & Avery	2,900	3,570	48	97	134.9
110. I-5 SB Ramps & Junipero Serra	2,630	2,970	9	14	18.1
111. I-5 NB Ramps & Junipero Serra	2,760	2,630	5	6	8.2
112. I-5 SB Ramps & Ortega	5,160	5,660	60	80	211.8
113. I-5 NB Ramps & Ortega	5,780	5,940	32	33	105.8
114. Camino Capistrano & I-5 SB Ramps	3,720	4,380	33	44	87.6
115. Valle & La Novia/I-5 NB Ramps	2,110	2,070	33	33	38.3
116. Camino Capistrano & Stonehill	4,380	5,750	107	198	446.4
117. I-5 SB Ramps & Las Ramblas	2,800	3,450	2	3	4.4
118. I-5 NB Ramps & Las Ramblas	1,820	1,900	2	2	2.1
119. I-5 SB Ramps & Estrella	2,760	3,520	19	48	61.5
120. I-5 NB Ramps & Estrella	3,360	4,810	2	8	12.6
121. I-5 SB Ramps & Vista Hermosa	1,920	2,550	4	8	7.8

Table F-72 (cont)
 2025 INTERSECTION DELAY SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,170	3,300	4	5	8.1
123. I-5 SB Ramps & Pico	3,280	4,380	16	100	136.2
124. I-5 NB Ramps & Pico	4,360	4,770	123	91	269.5
125. I-5 SB Ramp & El Camino Real	1,710	2,580	3	10	8.6
126. I-5 NB Ramps & El Camino Real	1,600	2,110	4	4	4.1
127. I-5 SB Ramps & Cristianitos	470	570	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	750	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,390	2,200	6	6	7.7
151. Greenfield & SR 73 NB Ramps	1,560	1,160	9	5	5.5
152. SR 241 SB Ramps & Santa Margarita	5,350	6,190	32	104	226.4
153. SR 241 NB Ramps & Santa Margarita	7,370	6,450	200	40	481.1
154. SR 241 SB Ramps & Antonio	3,050	4,120	4	19	25.1
155. SR 241 NB Ramps & Antonio	4,540	3,930	177	6	229.8
Total	385,600	429,600			10,445.5

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,170	8,180	62	67	275.7
2. Jeronimo & Alicia	4,930	6,260	21	33	86.1
3. Trabuco & Alicia	4,530	5,670	16	24	57.9
4. Marguerite & Alicia	3,750	3,920	8	14	23.6
5. Olympiad & Alicia	3,730	4,140	33	21	58.3
6. Santa Margarita & Alicia	4,810	6,270	13	42	90.5
7. Marguerite & Trabuco	2,760	3,140	15	21	29.8
8. Marguerite & Jeronimo	3,970	3,820	44	18	67.6
9. Olympiad & Jeronimo	1,990	2,140	6	4	5.7
10. Marguerite & La Paz	4,250	5,350	11	48	84.3
11. Olympiad & La Paz	2,250	2,650	8	16	16.8
12. Empresa & Santa Margarita	6,420	5,930	100	72	296.9
13. Empresa & Banderas	3,270	2,810	35	24	50.5
14. Empresa & Antonio	3,740	3,440	9	4	13.2
15. Banderas & Antonio	4,710	3,760	21	18	46.3
16. Cabot & Paseo de Valencia	1,740	2,150	6	16	12.5
17. Cabot & Oso	5,300	6,480	19	80	172.0
18. Marguerite & Oso	6,950	7,240	33	30	124.0
19. Felipe & Oso	6,160	6,880	46	104	277.5
20. Antonio & Oso	9,160	8,410	75	72	359.0
21. Marguerite & Felipe	3,380	3,870	16	44	62.3
22. Moulton & Crown Valley	5,470	6,390	13	21	57.0
23. Greenfield & Crown Valley	4,310	5,780	28	40	97.7
24. Cabot & Crown Valley	5,460	7,000	18	55	134.2
25. Forbes & Crown Valley	5,530	6,880	44	77	214.7
26. Puerta Real & Crown Valley	6,790	8,630	35	69	231.4
27. El Regateo & Crown Valley	6,050	7,250	20	46	126.3
28. Los Altos & Crown Valley	5,870	6,670	20	60	143.8
29. Bellogente & Crown Valley	5,640	6,260	19	16	57.6
30. Marguerite & Crown Valley	8,710	9,430	120	75	486.8
31. Antonio & Crown Valley	6,190	6,920	35	80	214.0
32. Golden Lantern & Paseo de Colinas	4,630	4,080	32	10	52.5
33. Cabot & Paseo de Colinas	1,720	1,840	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,250	2,120	3	5	4.0
35. Camino Capistrano & Avery	2,160	3,050	11	24	26.9
36. Marguerite & Avery	3,420	4,360	20	39	66.2
37. Golden Lantern & Marina Hills	5,440	5,340	33	20	79.5
39. Camino Capistrano & Junipero Serra	3,210	3,790	44	13	52.9
40. Rancho Viejo & Junipero Serra	2,900	2,630	13	9	17.0
41. Camino Capistrano & Oso Road	2,190	1,890	13	5	10.5
42. Camino Capistrano & Ortega	1,600	1,660	6	8	6.4
43. Del Obispo & Ortega	3,270	3,620	9	12	20.2

Table F-73 (cont)
2025 INTERSECTION DELAY SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,820	5,490	32	67	153.9
45. La Novia & Ortega	4,310	4,020	32	27	68.5
46. Antonio/La Pata & Ortega	5,210	5,490	134	75	308.3
47. Alipaz & Del Obispo	3,070	3,460	13	37	46.6
48. Camino Capistrano & Del Obispo	4,980	4,520	39	83	158.2
49. Camino Capistrano & San Juan Creek	3,840	4,840	12	44	72.0
50. Valle & San Juan Creek	3,120	3,550	12	30	40.0
51. La Novia & San Juan Creek	3,490	3,190	35	20	51.7
53. Del Obispo & Del Avion	2,790	2,560	12	10	16.4
54. Alipaz & Del Avion	850	690	3	2	1.1
55. Del Obispo & Stonehill	3,100	4,200	13	25	40.4
60. La Pata & Vista Hermosa	4,220	4,370	27	12	46.2
61. Talega & Vista Hermosa	2,570	2,520	6	7	9.2
62. Vera Cruz & Los Mares	1,100	960	2	2	1.1
63. Vera Cruz & Vista Hermosa	2,800	2,620	9	10	14.3
64. La Pata & Pico	4,890	5,620	12	35	70.9
65. Vista Hermosa & Pico	4,330	5,040	19	40	78.9
66. PCH & Camino Capistrano	1,750	2,690	3	6	5.9
67. El Camino Real & Pico	2,380	3,540	4	9	11.5
68. El Camino Real & Cristianitos	480	750	2	2	0.7
100. I-5 SB Ramps & Alicia	5,700	6,510	23	46	119.6
101. I-5 NB Ramps & Alicia	6,260	6,310	4	23	47.3
102. I-5 SB Ramps/Cabot & La Paz	3,410	4,430	8	24	37.1
103. I-5 NB Ramps/Muirlands & La Paz	5,340	5,390	53	42	141.5
104. I-5 SB Ramps & Oso	5,200	6,410	16	33	81.9
105. I-5 NB Ramps & Oso	6,090	6,390	30	46	132.4
106. I-5 SB Ramps & Crown Valley	6,440	8,230	21	62	179.3
107. I-5 NB Ramps & Crown Valley	7,590	8,520	24	42	150.0
108. I-5 SB Ramps & Avery	2,720	3,730	9	25	32.7
109. I-5 NB Ramps & Avery	3,020	3,590	12	21	31.0
110. I-5 SB Ramps & Junipero Serra	3,210	3,670	12	19	30.1
111. I-5 NB Ramps & Junipero Serra	3,170	3,000	7	12	16.2
112. I-5 SB Ramps & Ortega	4,510	5,100	33	48	109.3
113. I-5 NB Ramps & Ortega	5,350	5,550	9	13	33.4
114. Camino Capistrano & I-5 SB Ramps	3,490	4,470	23	48	81.9
115. Valle & La Novia/I-5 NB Ramps	2,030	1,970	32	25	31.7
116. Camino Capistrano & Stonehill	4,160	5,750	18	40	84.7
117. I-5 SB Ramps & Las Ramblas	2,760	3,370	2	3	4.3
118. I-5 NB Ramps & Las Ramblas	1,650	1,860	2	3	2.5
119. I-5 SB Ramps & Estrella	2,720	3,240	16	35	43.6
120. I-5 NB Ramps & Estrella	3,230	3,750	2	6	8.0
121. I-5 SB Ramps & Vista Hermosa	1,760	2,420	3	4	4.2

Table F-73 (cont)
 2025 INTERSECTION DELAY SUMMARY – A7C-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	2,990	2,990	4	3	5.8
123. I-5 SB Ramps & Pico	3,120	3,980	12	83	102.2
124. I-5 NB Ramps & Pico	3,940	4,360	107	91	227.3
125. I-5 SB Ramp & El Camino Real	1,690	2,550	4	7	6.8
126. I-5 NB Ramps & El Camino Real	1,560	2,090	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	570	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	750	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,240	2,020	6	5	6.5
151. Greenfield & SR 73 NB Ramps	1,510	1,020	8	3	4.2
152. SR 241 SB Ramps & Santa Margarita	5,320	6,150	32	104	225.0
153. SR 241 NB Ramps & Santa Margarita	7,350	6,430	18	40	108.2
154. SR 241 SB Ramps & Antonio	3,080	4,060	4	20	26.0
155. SR 241 NB Ramps & Antonio	4,570	3,930	117	6	155.1
Total	381,590	424,870			7,787.6

Table F-74
 2025 INTERSECTION DELAY SUMMARY – A7C-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	6,510	7,780	62	57	235.3
2. Jeronimo & Alicia	4,610	5,860	15	24	58.3
3. Trabuco & Alicia	4,030	4,960	13	18	39.4
4. Marguerite & Alicia	3,350	3,530	9	12	20.1
5. Olympiad & Alicia	3,230	3,570	20	15	32.8
6. Santa Margarita & Alicia	3,780	4,800	4	25	37.5
7. Marguerite & Trabuco	2,430	2,950	9	13	16.7
8. Marguerite & Jeronimo	3,640	3,600	39	12	51.4
9. Olympiad & Jeronimo	1,810	2,050	4	4	4.3
10. Marguerite & La Paz	4,010	5,100	9	24	44.0
11. Olympiad & La Paz	2,130	2,190	8	9	10.2
12. Empresa & Santa Margarita	5,580	4,770	30	25	79.6
13. Empresa & Banderas	3,000	2,510	48	18	52.6
14. Empresa & Antonio	3,660	3,320	6	5	10.7
15. Banderas & Antonio	4,470	3,570	23	20	48.4
16. Cabot & Paseo de Valencia	1,510	1,950	3	9	6.1
17. Cabot & Oso	5,150	6,170	24	69	152.6
18. Marguerite & Oso	6,740	6,950	32	18	94.7
19. Felipe & Oso	6,280	7,070	44	130	332.1
20. Antonio & Oso	8,430	7,660	104	55	360.6
21. Marguerite & Felipe	3,420	3,950	18	75	99.4
22. Moulton & Crown Valley	5,400	6,230	11	21	52.8
23. Greenfield & Crown Valley	4,270	5,850	30	55	125.0
24. Cabot & Crown Valley	5,190	6,810	13	57	126.6
25. Forbes & Crown Valley	5,460	6,750	39	72	194.2
26. Puerta Real & Crown Valley	7,040	9,000	37	75	259.9
27. El Regateo & Crown Valley	6,380	7,660	25	48	146.4
28. Los Altos & Crown Valley	6,210	7,220	25	72	187.5
29. Bellogente & Crown Valley	6,010	6,840	25	23	85.4
30. Marguerite & Crown Valley	9,060	10,050	120	120	637.0
31. Antonio & Crown Valley	7,600	9,040	130	80	475.3
32. Golden Lantern & Paseo de Colinas	4,630	3,980	32	10	52.2
33. Cabot & Paseo de Colinas	1,710	1,810	4	3	3.4
34. Cm Capistrano & Paseo de Colinas	1,340	2,090	4	5	4.4
35. Camino Capistrano & Avery	2,260	3,000	12	24	27.5
36. Marguerite & Avery	3,390	4,360	19	48	76.0
37. Golden Lantern & Marina Hills	5,320	5,100	30	16	67.0
39. Camino Capistrano & Junipero Serra	3,110	3,710	44	12	50.4
40. Rancho Viejo & Junipero Serra	2,800	2,460	12	7	14.1
41. Camino Capistrano & Oso Road	2,170	1,850	13	5	10.4
42. Camino Capistrano & Ortega	1,530	1,580	6	6	5.2
43. Del Obispo & Ortega	3,260	3,670	9	14	22.4

Table F-74 (cont)
 2025 INTERSECTION DELAY SUMMARY – A7C-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,680	5,440	24	64	134.6
45. La Novia & Ortega	4,330	4,190	32	32	75.7
46. Antonio/La Pata & Ortega	7,160	8,500	200	200	870.0
47. Alipaz & Del Obispo	3,070	3,460	13	33	42.8
48. Camino Capistrano & Del Obispo	4,930	4,520	40	83	159.0
49. Camino Capistrano & San Juan Creek	3,850	4,960	13	51	84.2
50. Valle & San Juan Creek	3,340	3,750	20	37	57.1
51. La Novia & San Juan Creek	3,590	3,420	46	24	68.7
53. Del Obispo & Del Avion	2,770	2,510	13	9	16.3
54. Alipaz & Del Avion	870	700	3	2	1.1
55. Del Obispo & Stonehill	3,060	4,220	13	27	42.7
60. La Pata & Vista Hermosa	4,310	4,360	28	12	48.1
61. Talega & Vista Hermosa	2,680	2,580	6	8	10.2
62. Vera Cruz & Los Mares	1,120	840	2	2	1.1
63. Vera Cruz & Vista Hermosa	2,730	2,520	10	8	13.2
64. La Pata & Pico	4,660	5,480	10	33	63.2
65. Vista Hermosa & Pico	4,670	5,360	20	64	121.2
66. PCH & Camino Capistrano	1,680	2,560	3	5	5.0
67. El Camino Real & Pico	2,310	3,420	4	7	9.2
68. El Camino Real & Cristianitos	510	740	2	2	0.7
100. I-5 SB Ramps & Alicia	5,680	6,250	18	37	92.6
101. I-5 NB Ramps & Alicia	5,940	6,120	5	21	44.0
102. I-5 SB Ramps/Cabot & La Paz	3,280	4,400	7	20	30.8
103. I-5 NB Ramps/Muirlands & La Paz	4,510	5,200	23	37	82.3
104. I-5 SB Ramps & Oso	5,070	6,370	19	40	97.5
105. I-5 NB Ramps & Oso	5,900	6,420	30	55	147.3
106. I-5 SB Ramps & Crown Valley	6,460	8,680	25	88	257.0
107. I-5 NB Ramps & Crown Valley	7,730	9,200	25	62	212.1
108. I-5 SB Ramps & Avery	2,870	3,650	10	24	32.3
109. I-5 NB Ramps & Avery	3,140	3,680	19	18	35.0
110. I-5 SB Ramps & Junipero Serra	3,170	3,610	13	16	27.5
111. I-5 NB Ramps & Junipero Serra	3,230	2,850	9	9	15.2
112. I-5 SB Ramps & Ortega	4,490	5,250	33	55	121.4
113. I-5 NB Ramps & Ortega	5,350	5,730	9	14	35.7
114. Camino Capistrano & I-5 SB Ramps	3,550	4,560	24	51	88.3
115. Valle & La Novia/I-5 NB Ramps	2,040	1,960	20	21	22.8
116. Camino Capistrano & Stonehill	4,190	5,790	18	40	85.3
117. I-5 SB Ramps & Las Ramblas	2,930	3,500	2	3	4.5
118. I-5 NB Ramps & Las Ramblas	1,830	1,990	2	3	2.7
119. I-5 SB Ramps & Estrella	2,800	3,270	16	37	46.1
120. I-5 NB Ramps & Estrella	3,340	3,760	3	6	9.1
121. I-5 SB Ramps & Vista Hermosa	1,730	2,380	3	4	4.1

Table F-74 (cont)
 2025 INTERSECTION DELAY SUMMARY – A7C-ULTIMATE ALTERNATIVE
 (BUILDOUT TOLL-FREE CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	2,860	3,030	4	3	5.7
123. I-5 SB Ramps & Pico	3,070	3,970	12	100	120.5
124. I-5 NB Ramps & Pico	3,830	4,400	110	88	224.6
125. I-5 SB Ramp & El Camino Real	1,710	2,580	4	10	9.1
126. I-5 NB Ramps & El Camino Real	1,510	2,080	3	4	3.6
127. I-5 SB Ramps & Cristianitos	470	560	2	2	0.6
128. I-5 NB Ramps & Cristianitos	660	740	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,380	2,270	8	8	10.3
151. Greenfield & SR 73 NB Ramps	1,520	1,160	7	3	3.9
152. SR 241 SB Ramps & Santa Margarita	5,450	6,420	53	172	387.0
153. SR 241 NB Ramps & Santa Margarita	7,720	7,130	21	44	132.2
154. SR 241 SB Ramps & Antonio	3,490	4,170	11	23	37.3
155. SR 241 NB Ramps & Antonio	4,950	3,870	189	6	266.3
Total	379,510	425,990			8,137.9

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,270	8,290	64	64	276.6
2. Jeronimo & Alicia	5,040	6,390	48	44	145.3
3. Trabuco & Alicia	4,600	5,720	37	67	153.7
4. Marguerite & Alicia	3,850	4,050	11	15	28.6
5. Olympiad & Alicia	3,500	3,780	12	11	23.2
6. Santa Margarita & Alicia	4,920	6,320	13	44	95.0
7. Marguerite & Trabuco	2,910	3,330	25	35	52.6
8. Marguerite & Jeronimo	4,030	4,030	42	18	67.2
9. Olympiad & Jeronimo	1,620	1,770	5	3	3.7
10. Marguerite & La Paz	4,320	5,440	12	46	83.9
11. Olympiad & La Paz	1,980	2,290	7	12	11.5
12. Empresa & Santa Margarita	6,550	6,020	104	69	304.6
13. Empresa & Banderas	3,330	2,890	40	27	58.7
14. Empresa & Antonio	3,830	3,550	12	5	17.7
15. Banderas & Antonio	4,720	3,840	23	20	51.5
16. Cabot & Paseo de Valencia	1,690	2,100	5	13	9.9
17. Cabot & Oso	5,450	6,550	19	80	174.3
18. Marguerite & Oso	7,100	7,410	37	33	140.9
19. Felipe & Oso	6,180	6,930	40	97	255.4
20. Antonio & Oso	9,220	8,540	110	113	549.8
21. Marguerite & Felipe	3,340	3,850	16	42	59.8
22. Moulton & Crown Valley	5,950	6,840	20	35	99.6
23. Greenfield & Crown Valley	4,770	6,290	35	42	119.8
24. Cabot & Crown Valley	5,820	7,300	24	67	174.7
25. Forbes & Crown Valley	5,770	7,090	48	88	250.2
26. Puerta Real & Crown Valley	7,000	8,870	37	72	249.3
27. El Regateo & Crown Valley	6,280	7,450	23	48	139.5
28. Los Altos & Crown Valley	6,120	6,870	23	62	157.4
29. Bellogente & Crown Valley	5,870	6,460	21	18	66.5
30. Marguerite & Crown Valley	8,930	9,700	117	86	521.9
31. Antonio & Crown Valley	6,190	6,950	35	86	226.2
32. Golden Lantern & Paseo de Colinas	5,150	4,620	94	39	184.5
33. Cabot & Paseo de Colinas	2,250	2,360	5	6	7.1
34. Cm Capistrano & Paseo de Colinas	1,700	2,680	4	14	12.3
35. Camino Capistrano & Avery	1,940	2,850	3	8	8.0
36. Marguerite & Avery	3,470	4,370	21	46	76.1
37. Golden Lantern & Marina Hills	4,510	4,220	44	37	98.5
39. Camino Capistrano & Junipero Serra	2,270	2,610	44	44	59.6
40. Rancho Viejo & Junipero Serra	2,580	2,450	9	7	11.2
41. Camino Capistrano & Oso Road	1,910	1,480	4	3	3.4
42. Camino Capistrano & Ortega	1,990	2,090	20	23	24.4
43. Del Obispo & Ortega	3,870	4,230	15	24	44.3

Table F-75 (cont)
2025 INTERSECTION DELAY SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,730	5,480	23	64	134.0
45. La Novia & Ortega	4,530	4,360	25	51	93.2
46. Antonio/La Pata & Ortega	3,790	4,150	200	200	441.1
47. Alipaz & Del Obispo	3,220	3,640	21	19	38.0
48. Camino Capistrano & Del Obispo	5,600	5,160	75	94	251.4
49. Camino Capistrano & San Juan Creek	3,700	4,360	10	20	34.5
50. Valle & San Juan Creek	2,770	3,020	57	44	80.8
51. La Novia & San Juan Creek	2,900	2,610	94	57	117.0
53. Del Obispo & Del Avion	2,970	2,820	18	11	23.5
54. Alipaz & Del Avion	980	800	3	3	1.5
55. Del Obispo & Stonehill	3,150	4,280	62	67	133.9
60. La Pata & Vista Hermosa	3,680	3,700	28	13	42.0
61. Talega & Vista Hermosa	2,620	2,610	8	13	15.2
62. Vera Cruz & Los Mares	1,140	1,090	3	2	1.6
63. Vera Cruz & Vista Hermosa	4,010	4,010	48	57	117.0
64. La Pata & Pico	5,170	5,570	15	48	95.8
65. Vista Hermosa & Pico	3,930	4,660	8	13	25.6
66. PCH & Camino Capistrano	1,670	2,660	7	46	37.2
67. El Camino Real & Pico	2,350	3,520	19	62	73.0
68. El Camino Real & Cristianitos	1,010	1,440	3	8	4.0
100. I-5 SB Ramps & Alicia	5,800	6,510	24	46	121.9
101. I-5 NB Ramps & Alicia	6,380	6,330	4	23	47.5
102. I-5 SB Ramps/Cabot & La Paz	3,440	4,410	13	37	57.7
103. I-5 NB Ramps/Muirlands & La Paz	5,350	5,400	51	40	135.8
104. I-5 SB Ramps & Oso	5,470	6,560	19	35	92.6
105. I-5 NB Ramps & Oso	6,390	6,570	35	51	155.2
106. I-5 SB Ramps & Crown Valley	6,750	8,440	23	72	211.9
107. I-5 NB Ramps & Crown Valley	7,820	8,950	28	57	202.5
108. I-5 SB Ramps & Avery	2,670	3,560	23	64	80.3
109. I-5 NB Ramps & Avery	2,960	3,610	53	97	140.8
110. I-5 SB Ramps & Junipero Serra	2,610	2,960	9	14	18.0
111. I-5 NB Ramps & Junipero Serra	2,740	2,610	5	6	8.2
112. I-5 SB Ramps & Ortega	5,260	5,700	67	86	234.1
113. I-5 NB Ramps & Ortega	5,870	5,990	33	33	108.7
114. Camino Capistrano & I-5 SB Ramps	3,760	4,440	37	44	92.9
115. Valle & La Novia/I-5 NB Ramps	2,160	2,080	42	33	44.3
116. Camino Capistrano & Stonehill	4,410	5,760	110	200	454.8
117. I-5 SB Ramps & Las Ramblas	2,810	3,440	2	2	3.5
118. I-5 NB Ramps & Las Ramblas	1,810	1,840	2	2	2.0
119. I-5 SB Ramps & Estrella	2,800	3,530	19	53	66.7
120. I-5 NB Ramps & Estrella	3,440	4,880	3	8	13.7
121. I-5 SB Ramps & Vista Hermosa	2,140	2,850	4	7	7.9

Table F-75 (cont)
 2025 INTERSECTION DELAY SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,560	3,740	5	6	11.2
123. I-5 SB Ramps & Pico	3,620	4,740	51	83	160.6
124. I-5 NB Ramps & Pico	4,960	5,740	53	25	112.9
125. I-5 SB Ramp & El Camino Real	1,630	2,430	4	9	7.9
126. I-5 NB Ramps & El Camino Real	1,450	1,960	3	3	2.8
127. I-5 SB Ramps & Cristianitos	560	730	2	3	0.9
128. I-5 NB Ramps & Cristianitos	990	1,240	3	7	3.2
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,390	2,260	6	7	8.4
151. Greenfield & SR 73 NB Ramps	1,570	1,170	9	5	5.6
152. SR 241 SB Ramps & Santa Margarita	5,350	6,200	32	104	226.7
153. SR 241 NB Ramps & Santa Margarita	7,380	6,450	200	40	481.7
154. SR 241 SB Ramps & Antonio	3,070	4,130	4	19	25.2
155. SR 241 NB Ramps & Antonio	4,540	3,970	177	6	229.8
Total	390,050	434,080			10,439.6

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,200	8,170	64	64	273.2
2. Jeronimo & Alicia	4,950	6,260	21	33	86.3
3. Trabuco & Alicia	4,550	5,690	18	24	60.7
4. Marguerite & Alicia	3,770	3,930	8	14	23.7
5. Olympiad & Alicia	3,730	4,160	30	20	54.2
6. Santa Margarita & Alicia	4,850	6,300	13	40	87.5
7. Marguerite & Trabuco	2,780	3,130	16	20	29.7
8. Marguerite & Jeronimo	3,970	3,800	37	18	59.8
9. Olympiad & Jeronimo	2,050	2,150	8	4	6.9
10. Marguerite & La Paz	4,220	5,350	12	51	89.9
11. Olympiad & La Paz	2,280	2,630	6	15	14.8
12. Empresa & Santa Margarita	6,470	5,950	107	72	311.3
13. Empresa & Banderas	3,300	2,850	37	25	53.7
14. Empresa & Antonio	3,790	3,520	11	4	15.5
15. Banderas & Antonio	4,760	3,840	21	19	48.0
16. Cabot & Paseo de Valencia	1,750	2,120	6	14	11.2
17. Cabot & Oso	5,300	6,460	19	77	166.1
18. Marguerite & Oso	6,970	7,250	33	30	124.3
19. Felipe & Oso	6,180	6,910	46	100	270.9
20. Antonio & Oso	9,290	8,530	75	77	376.0
21. Marguerite & Felipe	3,390	3,900	18	44	64.6
22. Moulton & Crown Valley	5,480	6,390	13	24	62.4
23. Greenfield & Crown Valley	4,320	5,870	28	40	98.8
24. Cabot & Crown Valley	5,460	7,040	18	57	138.8
25. Forbes & Crown Valley	5,540	6,900	44	80	221.0
26. Puerta Real & Crown Valley	6,800	8,680	35	72	239.7
27. El Regateo & Crown Valley	6,070	7,270	20	46	126.6
28. Los Altos & Crown Valley	5,920	6,690	21	60	146.0
29. Bellogente & Crown Valley	5,680	6,280	20	16	59.5
30. Marguerite & Crown Valley	8,770	9,470	117	75	482.3
31. Antonio & Crown Valley	6,270	6,980	37	77	213.7
32. Golden Lantern & Paseo de Colinas	4,620	4,080	32	10	52.4
33. Cabot & Paseo de Colinas	1,730	1,840	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,260	2,130	3	5	4.0
35. Camino Capistrano & Avery	2,160	3,050	11	24	26.9
36. Marguerite & Avery	3,410	4,340	23	37	66.4
37. Golden Lantern & Marina Hills	5,460	5,340	35	21	84.2
39. Camino Capistrano & Junipero Serra	3,200	3,770	44	13	52.7
40. Rancho Viejo & Junipero Serra	2,890	2,590	12	9	16.1
41. Camino Capistrano & Oso Road	2,190	1,860	13	5	10.5
42. Camino Capistrano & Ortega	1,600	1,630	6	7	5.8
43. Del Obispo & Ortega	3,260	3,620	9	12	20.2

Table F-76 (cont)
 2025 INTERSECTION DELAY SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,830	5,530	32	67	154.7
45. La Novia & Ortega	4,300	4,070	30	28	67.5
46. Antonio/La Pata & Ortega	5,470	5,750	138	80	337.5
47. Alipaz & Del Obispo	3,080	3,480	13	37	46.9
48. Camino Capistrano & Del Obispo	4,960	4,490	39	77	149.8
49. Camino Capistrano & San Juan Creek	3,850	4,830	13	44	72.9
50. Valle & San Juan Creek	3,130	3,570	12	30	40.2
51. La Novia & San Juan Creek	3,480	3,260	33	23	52.7
53. Del Obispo & Del Avion	2,790	2,550	12	10	16.4
54. Alipaz & Del Avion	840	690	3	2	1.1
55. Del Obispo & Stonehill	3,080	4,200	13	25	40.3
60. La Pata & Vista Hermosa	4,330	4,470	23	12	42.6
61. Talega & Vista Hermosa	2,280	2,160	5	5	6.2
62. Vera Cruz & Los Mares	1,180	1,010	3	2	1.5
63. Vera Cruz & Vista Hermosa	3,040	2,950	12	11	19.1
64. La Pata & Pico	5,200	5,900	18	40	91.6
65. Vista Hermosa & Pico	3,600	4,290	6	9	16.7
66. PCH & Camino Capistrano	1,650	2,570	3	5	4.9
67. El Camino Real & Pico	2,360	3,530	4	8	10.5
68. El Camino Real & Cristianitos	930	1,340	2	7	3.1
100. I-5 SB Ramps & Alicia	5,710	6,490	21	46	116.2
101. I-5 NB Ramps & Alicia	6,270	6,300	4	23	47.2
102. I-5 SB Ramps/Cabot & La Paz	3,420	4,410	8	23	35.8
103. I-5 NB Ramps/Muirlands & La Paz	5,310	5,360	51	42	137.8
104. I-5 SB Ramps & Oso	5,190	6,410	16	32	80.0
105. I-5 NB Ramps & Oso	6,110	6,390	32	44	132.4
106. I-5 SB Ramps & Crown Valley	6,440	8,270	21	64	184.6
107. I-5 NB Ramps & Crown Valley	7,600	8,570	24	46	160.2
108. I-5 SB Ramps & Avery	2,740	3,750	9	25	32.9
109. I-5 NB Ramps & Avery	3,030	3,610	13	23	34.0
110. I-5 SB Ramps & Junipero Serra	3,210	3,630	12	18	28.9
111. I-5 NB Ramps & Junipero Serra	3,140	2,950	7	11	15.1
112. I-5 SB Ramps & Ortega	4,520	5,130	35	51	116.6
113. I-5 NB Ramps & Ortega	5,340	5,620	9	13	33.6
114. Camino Capistrano & I-5 SB Ramps	3,500	4,490	23	46	79.7
115. Valle & La Novia/I-5 NB Ramps	2,050	1,970	32	25	31.9
116. Camino Capistrano & Stonehill	4,170	5,750	18	40	84.7
117. I-5 SB Ramps & Las Ramblas	2,790	3,410	2	3	4.4
118. I-5 NB Ramps & Las Ramblas	1,690	1,880	2	3	2.5
119. I-5 SB Ramps & Estrella	2,750	3,300	16	39	48.0
120. I-5 NB Ramps & Estrella	3,280	3,790	3	6	9.1
121. I-5 SB Ramps & Vista Hermosa	1,960	2,710	3	5	5.4

Table F-76 (cont)
 2025 INTERSECTION DELAY SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,320	3,460	5	5	9.4
123. I-5 SB Ramps & Pico	3,350	4,310	32	44	82.5
124. I-5 NB Ramps & Pico	4,620	5,330	44	16	80.2
125. I-5 SB Ramp & El Camino Real	1,630	2,320	4	6	5.7
126. I-5 NB Ramps & El Camino Real	1,460	1,920	3	4	3.4
127. I-5 SB Ramps & Cristianitos	520	660	2	2	0.7
128. I-5 NB Ramps & Cristianitos	930	1,150	2	7	2.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,250	2,130	6	6	7.3
151. Greenfield & SR 73 NB Ramps	1,520	1,030	8	3	4.2
152. SR 241 SB Ramps & Santa Margarita	5,310	6,170	33	107	232.1
153. SR 241 NB Ramps & Santa Margarita	7,360	6,420	18	40	108.1
154. SR 241 SB Ramps & Antonio	3,090	4,100	4	19	25.1
155. SR 241 NB Ramps & Antonio	4,570	3,930	117	6	155.1
Total	384,600	428,570			7,676.9

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,050	8,210	57	64	257.6
2. Jeronimo & Alicia	5,070	6,530	24	40	106.4
3. Trabuco & Alicia	4,780	5,970	23	27	75.3
4. Marguerite & Alicia	3,850	4,010	8	18	28.6
5. Olympiad & Alicia	3,840	4,340	35	28	71.1
6. Santa Margarita & Alicia	5,070	6,380	16	48	107.6
7. Marguerite & Trabuco	2,860	3,260	16	27	37.2
8. Marguerite & Jeronimo	4,110	4,040	44	30	83.9
9. Olympiad & Jeronimo	2,160	2,320	12	6	11.1
10. Marguerite & La Paz	4,310	5,540	15	55	102.6
11. Olympiad & La Paz	2,480	2,710	7	20	19.9
12. Empresa & Santa Margarita	6,730	6,030	120	72	344.9
13. Empresa & Banderas	3,520	2,870	62	27	82.1
14. Empresa & Antonio	3,730	3,440	9	4	13.1
15. Banderas & Antonio	4,940	3,900	23	24	57.6
16. Cabot & Paseo de Valencia	1,580	2,270	6	19	14.6
17. Cabot & Oso	5,490	6,910	19	100	220.9
18. Marguerite & Oso	7,270	7,070	46	35	161.6
19. Felipe & Oso	6,800	7,620	67	138	418.7
20. Antonio & Oso	9,140	8,440	145	69	529.9
21. Marguerite & Felipe	3,710	4,210	32	88	135.9
22. Moulton & Crown Valley	5,650	6,430	14	24	64.8
23. Greenfield & Crown Valley	4,450	5,990	33	53	129.0
24. Cabot & Crown Valley	5,540	7,300	19	64	159.0
25. Forbes & Crown Valley	5,670	7,070	44	80	226.4
26. Puerta Real & Crown Valley	7,070	9,230	40	77	276.0
27. El Regateo & Crown Valley	6,370	7,970	24	62	179.7
28. Los Altos & Crown Valley	6,220	7,460	24	72	190.7
29. Bellogente & Crown Valley	6,030	7,070	25	23	87.0
30. Marguerite & Crown Valley	9,450	10,590	145	138	786.6
31. Antonio & Crown Valley	8,450	9,860	168	100	668.2
32. Golden Lantern & Paseo de Colinas	4,710	4,100	32	11	54.4
33. Cabot & Paseo de Colinas	1,700	1,880	5	4	4.5
34. Cm Capistrano & Paseo de Colinas	1,250	2,160	3	5	4.0
35. Camino Capistrano & Avery	2,210	3,140	12	32	35.3
36. Marguerite & Avery	3,530	4,640	24	51	89.3
37. Golden Lantern & Marina Hills	5,520	5,300	37	18	83.2
39. Camino Capistrano & Junipero Serra	3,150	3,800	44	15	54.3
40. Rancho Viejo & Junipero Serra	2,890	2,570	12	8	15.3
41. Camino Capistrano & Oso Road	2,230	1,960	15	7	13.1
42. Camino Capistrano & Ortega	1,590	1,700	6	7	6.0
43. Del Obispo & Ortega	3,180	3,690	8	15	22.4

Table F-77 (cont)

2025 INTERSECTION DELAY SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,800	5,650	25	75	158.0
45. La Novia & Ortega	4,470	4,420	39	39	96.3
46. Antonio/La Pata & Ortega	7,700	8,860	53	200	605.6
47. Alipaz & Del Obispo	3,020	3,460	13	32	41.7
48. Camino Capistrano & Del Obispo	4,940	4,650	40	100	184.1
49. Camino Capistrano & San Juan Creek	3,930	5,000	14	46	79.2
50. Valle & San Juan Creek	3,350	3,770	16	37	53.6
51. La Novia & San Juan Creek	3,650	3,530	46	28	74.1
53. Del Obispo & Del Avion	2,790	2,590	14	10	18.0
54. Alipaz & Del Avion	850	700	3	2	1.1
55. Del Obispo & Stonehill	3,100	4,180	13	25	40.2
60. La Pata & Vista Hermosa	4,850	4,860	42	14	75.5
61. Talega & Vista Hermosa	2,230	2,150	5	6	6.7
62. Vera Cruz & Los Mares	1,210	980	3	2	1.6
63. Vera Cruz & Vista Hermosa	3,220	2,970	15	12	23.3
64. La Pata & Pico	5,400	6,170	18	53	117.8
65. Vista Hermosa & Pico	3,720	4,480	5	14	22.6
66. PCH & Camino Capistrano	1,660	2,540	3	5	4.9
67. El Camino Real & Pico	2,370	3,470	4	8	10.3
68. El Camino Real & Cristianitos	930	1,320	2	7	3.1
100. I-5 SB Ramps & Alicia	5,750	6,400	23	48	122.1
101. I-5 NB Ramps & Alicia	6,430	6,200	4	24	48.5
102. I-5 SB Ramps/Cabot & La Paz	3,420	4,580	7	28	42.3
103. I-5 NB Ramps/Muirlands & La Paz	5,400	5,420	51	37	132.2
104. I-5 SB Ramps & Oso	5,470	6,570	19	32	87.3
105. I-5 NB Ramps & Oso	6,580	6,450	48	48	173.7
106. I-5 SB Ramps & Crown Valley	6,630	8,900	28	94	284.0
107. I-5 NB Ramps & Crown Valley	7,850	9,420	25	67	229.8
108. I-5 SB Ramps & Avery	2,810	3,820	9	25	33.6
109. I-5 NB Ramps & Avery	3,150	3,810	15	19	33.2
110. I-5 SB Ramps & Junipero Serra	3,160	3,730	12	23	34.4
111. I-5 NB Ramps & Junipero Serra	3,190	2,910	8	9	14.4
112. I-5 SB Ramps & Ortega	4,460	5,280	35	62	134.3
113. I-5 NB Ramps & Ortega	5,380	5,780	10	15	39.0
114. Camino Capistrano & I-5 SB Ramps	3,590	4,530	24	51	88.1
115. Valle & La Novia/I-5 NB Ramps	1,990	1,920	21	21	22.8
116. Camino Capistrano & Stonehill	4,160	5,790	16	42	86.0
117. I-5 SB Ramps & Las Ramblas	2,900	3,490	2	3	4.5
118. I-5 NB Ramps & Las Ramblas	1,810	1,980	2	3	2.7
119. I-5 SB Ramps & Estrella	2,810	3,300	18	40	50.7
120. I-5 NB Ramps & Estrella	3,370	3,820	3	6	9.2
121. I-5 SB Ramps & Vista Hermosa	2,030	2,760	3	5	5.5

Table F-77 (cont)
 2025 INTERSECTION DELAY SUMMARY – A7C-FECV-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,410	3,540	5	4	8.7
123. I-5 SB Ramps & Pico	3,450	4,400	42	60	113.6
124. I-5 NB Ramps & Pico	4,650	5,450	48	18	89.3
125. I-5 SB Ramp & El Camino Real	1,640	2,370	4	8	7.1
126. I-5 NB Ramps & El Camino Real	1,420	1,910	3	3	2.8
127. I-5 SB Ramps & Cristianitos	520	650	2	2	0.7
128. I-5 NB Ramps & Cristianitos	930	1,140	2	7	2.7
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,320	2,240	6	8	8.8
151. Greenfield & SR 73 NB Ramps	1,590	1,080	9	3	4.9
152. SR 241 SB Ramps & Santa Margarita	5,090	6,010	30	110	226.1
153. SR 241 NB Ramps & Santa Margarita	7,290	6,340	15	40	100.8
154. SR 241 SB Ramps & Antonio	3,010	4,050	4	18	23.6
155. SR 241 NB Ramps & Antonio	4,470	3,840	117	6	151.7
Total	398,100	447,700			10,069.1

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,250	8,290	60	64	268.2
2. Jeronimo & Alicia	5,010	6,380	48	42	141.2
3. Trabuco & Alicia	4,580	5,720	39	67	156.1
4. Marguerite & Alicia	3,810	4,030	12	14	28.4
5. Olympiad & Alicia	3,480	3,740	12	10	22.0
6. Santa Margarita & Alicia	4,860	6,270	13	44	94.2
7. Marguerite & Trabuco	2,920	3,360	25	37	54.8
8. Marguerite & Jeronimo	4,020	4,040	42	18	67.1
9. Olympiad & Jeronimo	1,620	1,770	5	3	3.7
10. Marguerite & La Paz	4,340	5,450	12	48	87.1
11. Olympiad & La Paz	1,980	2,300	7	12	11.5
12. Empresa & Santa Margarita	6,510	5,980	104	69	302.7
13. Empresa & Banderas	3,310	2,870	39	25	55.8
14. Empresa & Antonio	3,840	3,550	11	4	15.7
15. Banderas & Antonio	4,750	3,840	23	20	51.7
16. Cabot & Paseo de Valencia	1,720	2,160	5	16	12.0
17. Cabot & Oso	5,460	6,660	19	80	176.8
18. Marguerite & Oso	7,140	7,430	35	33	137.5
19. Felipe & Oso	6,180	6,940	42	94	253.3
20. Antonio & Oso	9,270	8,570	120	113	578.0
21. Marguerite & Felipe	3,370	3,870	18	42	62.0
22. Moulton & Crown Valley	5,980	6,880	20	35	100.1
23. Greenfield & Crown Valley	4,790	6,340	35	42	120.5
24. Cabot & Crown Valley	5,880	7,410	25	72	189.0
25. Forbes & Crown Valley	5,790	7,130	51	88	256.3
26. Puerta Real & Crown Valley	7,000	8,870	37	69	242.0
27. El Regateo & Crown Valley	6,270	7,460	23	48	139.5
28. Los Altos & Crown Valley	6,110	6,880	23	62	157.5
29. Bellogente & Crown Valley	5,880	6,460	21	18	66.6
30. Marguerite & Crown Valley	8,960	9,730	117	86	523.6
31. Antonio & Crown Valley	6,220	6,980	35	86	227.2
32. Golden Lantern & Paseo de Colinas	5,180	4,670	94	39	185.8
33. Cabot & Paseo de Colinas	2,260	2,390	6	6	7.8
34. Cm Capistrano & Paseo de Colinas	1,700	2,680	4	14	12.3
35. Camino Capistrano & Avery	1,930	2,850	3	8	7.9
36. Marguerite & Avery	3,520	4,400	24	51	85.8
37. Golden Lantern & Marina Hills	4,550	4,300	46	40	105.9
39. Camino Capistrano & Junipero Serra	2,360	2,740	55	55	77.9
40. Rancho Viejo & Junipero Serra	2,600	2,470	8	7	10.6
41. Camino Capistrano & Oso Road	2,000	1,570	5	3	4.1
42. Camino Capistrano & Ortega	2,050	2,070	28	16	25.1
43. Del Obispo & Ortega	3,800	4,130	14	23	41.2

Table F-78 (cont)
 2025 INTERSECTION DELAY SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,770	5,490	23	62	131.4
45. La Novia & Ortega	4,600	4,400	27	53	99.3
46. Antonio/La Pata & Ortega	3,790	4,160	200	200	441.7
47. Alipaz & Del Obispo	3,220	3,640	20	19	37.1
48. Camino Capistrano & Del Obispo	5,680	5,240	80	100	271.8
49. Camino Capistrano & San Juan Creek	3,750	4,400	12	23	40.6
50. Valle & San Juan Creek	2,770	3,040	60	44	83.3
51. La Novia & San Juan Creek	2,930	2,660	91	62	119.9
53. Del Obispo & Del Avion	3,000	2,850	18	11	23.7
54. Alipaz & Del Avion	990	820	3	3	1.5
55. Del Obispo & Stonehill	3,130	4,260	62	67	133.2
60. La Pata & Vista Hermosa	3,700	3,670	30	12	43.1
61. Talega & Vista Hermosa	2,650	2,620	9	14	16.8
62. Vera Cruz & Los Mares	1,180	1,200	3	3	2.0
63. Vera Cruz & Vista Hermosa	4,080	4,070	48	64	126.8
64. La Pata & Pico	5,210	5,630	15	48	96.8
65. Vista Hermosa & Pico	4,000	4,700	8	16	29.8
66. PCH & Camino Capistrano	1,760	2,800	9	55	47.2
67. El Camino Real & Pico	2,450	3,590	24	64	80.2
68. El Camino Real & Cristianitos	3,310	4,750	21	51	86.6
100. I-5 SB Ramps & Alicia	5,760	6,550	23	46	120.5
101. I-5 NB Ramps & Alicia	6,320	6,360	4	23	47.7
102. I-5 SB Ramps/Cabot & La Paz	3,480	4,530	14	44	68.9
103. I-5 NB Ramps/Muirlands & La Paz	5,400	5,410	53	40	139.6
104. I-5 SB Ramps & Oso	5,480	6,650	19	35	93.6
105. I-5 NB Ramps & Oso	6,400	6,580	35	51	155.4
106. I-5 SB Ramps & Crown Valley	6,760	8,440	21	67	196.5
107. I-5 NB Ramps & Crown Valley	7,800	8,930	27	55	194.9
108. I-5 SB Ramps & Avery	2,660	3,540	21	64	78.5
109. I-5 NB Ramps & Avery	2,970	3,620	55	97	142.9
110. I-5 SB Ramps & Junipero Serra	2,710	3,100	10	18	23.0
111. I-5 NB Ramps & Junipero Serra	2,810	2,690	5	7	9.1
112. I-5 SB Ramps & Ortega	5,200	5,590	67	80	221.0
113. I-5 NB Ramps & Ortega	5,840	5,930	33	30	103.0
114. Camino Capistrano & I-5 SB Ramps	3,780	4,390	37	42	90.1
115. Valle & La Novia/I-5 NB Ramps	2,180	2,130	48	40	52.7
116. Camino Capistrano & Stonehill	4,440	5,770	120	198	465.4
117. I-5 SB Ramps & Las Ramblas	2,810	3,380	2	2	3.4
118. I-5 NB Ramps & Las Ramblas	1,790	1,840	2	2	2.0
119. I-5 SB Ramps & Estrella	2,800	3,520	18	51	63.9
120. I-5 NB Ramps & Estrella	3,440	4,910	3	8	13.8
121. I-5 SB Ramps & Vista Hermosa	2,170	2,790	4	6	7.1

Table F-78 (cont)

2025 INTERSECTION DELAY SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,560	3,730	6	6	12.2
123. I-5 SB Ramps & Pico	3,640	4,780	51	94	176.4
124. I-5 NB Ramps & Pico	4,970	5,720	55	27	118.8
125. I-5 SB Ramp & El Camino Real	1,600	2,420	4	9	7.8
126. I-5 NB Ramps & El Camino Real	1,470	1,960	3	3	2.9
127. I-5 SB Ramps & Cristianitos	1,250	2,580	2	2	2.1
128. I-5 NB Ramps & Cristianitos	3,320	4,610	30	35	72.5
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,400	2,260	7	7	9.1
151. Greenfield & SR 73 NB Ramps	1,560	1,150	9	5	5.5
152. SR 241 SB Ramps & Santa Margarita	5,350	6,180	33	107	232.7
153. SR 241 NB Ramps & Santa Margarita	7,370	6,450	200	40	481.1
154. SR 241 SB Ramps & Antonio	3,110	4,130	4	19	25.3
155. SR 241 NB Ramps & Antonio	4,600	3,960	189	6	248.1
Total	396,850	444,290			10,769.4

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,200	8,210	62	64	270.0
2. Jeronimo & Alicia	4,950	6,300	21	33	86.6
3. Trabuco & Alicia	4,560	5,670	18	24	60.6
4. Marguerite & Alicia	3,780	3,920	8	14	23.6
5. Olympiad & Alicia	3,710	4,140	30	20	53.9
6. Santa Margarita & Alicia	4,820	6,270	13	40	87.1
7. Marguerite & Trabuco	2,800	3,130	16	21	30.7
8. Marguerite & Jeronimo	3,970	3,820	37	18	59.9
9. Olympiad & Jeronimo	2,050	2,150	8	4	6.9
10. Marguerite & La Paz	4,230	5,350	12	48	85.4
11. Olympiad & La Paz	2,270	2,660	6	15	14.9
12. Empresa & Santa Margarita	6,440	5,940	107	72	310.2
13. Empresa & Banderas	3,290	2,830	35	24	50.9
14. Empresa & Antonio	3,810	3,510	11	4	15.5
15. Banderas & Antonio	4,780	3,850	21	19	48.2
16. Cabot & Paseo de Valencia	1,750	2,150	6	16	12.5
17. Cabot & Oso	5,280	6,490	18	80	170.6
18. Marguerite & Oso	7,000	7,260	33	32	128.7
19. Felipe & Oso	6,190	6,930	46	100	271.6
20. Antonio & Oso	9,280	8,540	75	77	376.0
21. Marguerite & Felipe	3,420	3,920	19	46	68.1
22. Moulton & Crown Valley	5,510	6,420	14	23	62.4
23. Greenfield & Crown Valley	4,360	5,770	30	40	100.4
24. Cabot & Crown Valley	5,480	7,030	19	55	136.3
25. Forbes & Crown Valley	5,560	6,900	44	77	215.5
26. Puerta Real & Crown Valley	6,790	8,650	35	69	231.8
27. El Regateo & Crown Valley	6,050	7,280	18	46	123.3
28. Los Altos & Crown Valley	5,920	6,700	21	60	146.2
29. Bellogente & Crown Valley	5,690	6,290	20	16	59.6
30. Marguerite & Crown Valley	8,790	9,510	120	77	496.4
31. Antonio & Crown Valley	6,280	7,020	37	80	220.5
32. Golden Lantern & Paseo de Colinas	4,630	4,120	32	10	52.6
33. Cabot & Paseo de Colinas	1,730	1,860	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,250	2,140	3	5	4.0
35. Camino Capistrano & Avery	2,160	3,060	11	23	26.2
36. Marguerite & Avery	3,460	4,410	24	40	72.1
37. Golden Lantern & Marina Hills	5,480	5,390	35	19	81.7
39. Camino Capistrano & Junipero Serra	3,250	3,790	51	14	60.8
40. Rancho Viejo & Junipero Serra	2,910	2,660	12	9	16.4
41. Camino Capistrano & Oso Road	2,230	1,920	15	6	12.5
42. Camino Capistrano & Ortega	1,630	1,650	7	8	6.8
43. Del Obispo & Ortega	3,290	3,620	9	12	20.3

Table F-79 (cont)
2025 INTERSECTION DELAY SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,870	5,590	33	72	165.6
45. La Novia & Ortega	4,360	4,110	32	28	70.7
46. Antonio/La Pata & Ortega	5,550	5,860	141	77	342.7
47. Alipaz & Del Obispo	3,080	3,480	14	37	47.7
48. Camino Capistrano & Del Obispo	5,040	4,530	39	80	155.3
49. Camino Capistrano & San Juan Creek	3,880	4,890	13	44	73.8
50. Valle & San Juan Creek	3,120	3,600	12	30	40.4
51. La Novia & San Juan Creek	3,500	3,300	35	27	58.8
53. Del Obispo & Del Avion	2,800	2,570	12	11	17.2
54. Alipaz & Del Avion	850	690	3	2	1.1
55. Del Obispo & Stonehill	3,070	4,200	13	25	40.3
60. La Pata & Vista Hermosa	4,440	4,640	25	13	47.6
61. Talega & Vista Hermosa	2,270	2,160	5	5	6.2
62. Vera Cruz & Los Mares	1,190	1,030	3	2	1.6
63. Vera Cruz & Vista Hermosa	3,170	3,010	14	14	24.0
64. La Pata & Pico	5,260	5,950	18	42	95.7
65. Vista Hermosa & Pico	3,650	4,240	6	9	16.7
66. PCH & Camino Capistrano	1,730	2,670	3	6	5.9
67. El Camino Real & Pico	2,420	3,620	5	9	12.4
68. El Camino Real & Cristianitos	2,760	4,210	11	33	47.0
100. I-5 SB Ramps & Alicia	5,740	6,510	23	46	119.9
101. I-5 NB Ramps & Alicia	6,270	6,320	4	23	47.3
102. I-5 SB Ramps/Cabot & La Paz	3,450	4,460	8	24	37.4
103. I-5 NB Ramps/Muirlands & La Paz	5,310	5,410	48	42	133.9
104. I-5 SB Ramps & Oso	5,200	6,460	15	33	80.9
105. I-5 NB Ramps & Oso	6,150	6,430	32	44	133.3
106. I-5 SB Ramps & Crown Valley	6,440	8,250	21	62	179.7
107. I-5 NB Ramps & Crown Valley	7,600	8,560	24	46	160.0
108. I-5 SB Ramps & Avery	2,710	3,760	8	24	31.1
109. I-5 NB Ramps & Avery	3,050	3,610	12	23	33.2
110. I-5 SB Ramps & Junipero Serra	3,240	3,660	14	19	31.9
111. I-5 NB Ramps & Junipero Serra	3,160	3,000	8	12	17.0
112. I-5 SB Ramps & Ortega	4,560	5,100	37	48	114.9
113. I-5 NB Ramps & Ortega	5,350	5,600	10	13	35.1
114. Camino Capistrano & I-5 SB Ramps	3,550	4,510	24	48	83.8
115. Valle & La Novia/I-5 NB Ramps	2,050	1,990	30	27	32.0
116. Camino Capistrano & Stonehill	4,210	5,750	19	40	86.1
117. I-5 SB Ramps & Las Ramblas	2,780	3,370	2	3	4.4
118. I-5 NB Ramps & Las Ramblas	1,650	1,850	2	3	2.5
119. I-5 SB Ramps & Estrella	2,740	3,300	16	39	47.9
120. I-5 NB Ramps & Estrella	3,260	3,780	3	6	9.0
121. I-5 SB Ramps & Vista Hermosa	1,980	2,690	3	4	4.6

Table F-79 (cont)
 2025 INTERSECTION DELAY SUMMARY – A7C-FECV-C-INITIAL AND ULTIMATE ALTERNATIVES
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,350	3,480	5	4	8.5
123. I-5 SB Ramps & Pico	3,390	4,440	33	55	98.9
124. I-5 NB Ramps & Pico	4,690	5,460	48	19	91.4
125. I-5 SB Ramp & El Camino Real	1,600	2,360	3	7	5.9
126. I-5 NB Ramps & El Camino Real	1,460	1,960	3	4	3.4
127. I-5 SB Ramps & Cristianitos	1,010	2,320	2	2	1.9
128. I-5 NB Ramps & Cristianitos	2,800	4,070	15	20	34.3
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,310	2,020	6	5	6.7
151. Greenfield & SR 73 NB Ramps	1,570	1,020	9	3	4.8
152. SR 241 SB Ramps & Santa Margarita	5,280	6,150	32	107	229.7
153. SR 241 NB Ramps & Santa Margarita	7,340	6,420	18	40	108.0
154. SR 241 SB Ramps & Antonio	3,100	4,090	4	19	25.0
155. SR 241 NB Ramps & Antonio	4,610	3,920	123	6	164.0
Total	390,430	437,750			7,863.6

Table F-80
2025 INTERSECTION DELAY SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,260	8,510	64	77	311.1
2. Jeronimo & Alicia	5,050	6,470	24	33	93.0
3. Trabuco & Alicia	4,720	5,810	21	27	71.1
4. Marguerite & Alicia	3,840	3,950	9	14	25.0
5. Olympiad & Alicia	3,970	4,370	44	23	76.4
6. Santa Margarita & Alicia	4,950	6,410	16	44	100.3
7. Marguerite & Trabuco	2,880	3,230	18	25	36.8
8. Marguerite & Jeronimo	4,130	3,940	42	21	71.2
9. Olympiad & Jeronimo	2,370	2,390	18	5	15.2
10. Marguerite & La Paz	4,310	5,630	13	62	112.5
11. Olympiad & La Paz	2,600	3,040	9	28	30.1
12. Empresa & Santa Margarita	6,690	6,230	25	48	129.5
13. Empresa & Banderas	3,600	3,180	20	18	35.9
14. Empresa & Antonio	4,270	4,480	12	7	22.9
15. Banderas & Antonio	5,710	5,130	28	44	107.1
16. Cabot & Paseo de Valencia	1,830	2,270	6	21	16.3
17. Cabot & Oso	5,400	6,580	20	77	170.7
18. Marguerite & Oso	7,190	7,370	42	33	151.4
19. Felipe & Oso	6,780	7,520	24	39	126.7
20. Antonio & Oso	12,140	11,510	37	83	390.1
21. Marguerite & Felipe	3,510	3,920	23	53	80.1
22. Moulton & Crown Valley	5,490	6,440	13	24	62.8
23. Greenfield & Crown Valley	4,290	5,800	25	42	97.5
24. Cabot & Crown Valley	5,490	7,050	19	55	136.7
25. Forbes & Crown Valley	5,560	6,870	44	80	220.6
26. Puerta Real & Crown Valley	6,740	8,800	35	67	229.3
27. El Regateo & Crown Valley	6,030	7,440	21	48	134.4
28. Los Altos & Crown Valley	5,870	6,860	21	62	152.4
29. Bellogente & Crown Valley	5,640	6,450	20	18	63.6
30. Marguerite & Crown Valley	8,750	9,680	127	88	545.3
31. Antonio & Crown Valley	8,490	9,590	25	64	229.4
32. Golden Lantern & Paseo de Colinas	4,610	4,140	30	10	49.9
33. Cabot & Paseo de Colinas	1,710	1,850	4	4	4.0
34. Cm Capistrano & Paseo de Colinas	1,240	2,120	3	5	4.0
35. Camino Capistrano & Avery	2,130	3,030	9	20	22.2
36. Marguerite & Avery	3,470	4,440	27	39	74.1
37. Golden Lantern & Marina Hills	5,430	5,390	35	21	84.2
39. Camino Capistrano & Junipero Serra	3,240	3,810	53	15	63.6
40. Rancho Viejo & Junipero Serra	2,920	2,720	12	11	18.0
41. Camino Capistrano & Oso Road	2,270	1,990	15	6	12.8
42. Camino Capistrano & Ortega	1,680	1,760	9	12	10.1
43. Del Obispo & Ortega	3,330	3,710	9	14	22.8

Table F-80 (cont)
2025 INTERSECTION DELAY SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,930	5,610	37	72	173.1
45. La Novia & Ortega	4,440	4,150	39	25	76.9
46. Antonio/La Pata & Ortega	7,780	8,370	28	39	151.2
47. Alipaz & Del Obispo	3,120	3,530	19	37	52.7
48. Camino Capistrano & Del Obispo	5,170	4,660	48	88	182.8
49. Camino Capistrano & San Juan Creek	3,970	4,810	15	39	68.7
50. Valle & San Juan Creek	3,130	3,500	12	28	37.7
51. La Novia & San Juan Creek	3,640	3,320	42	37	76.6
53. Del Obispo & Del Avion	2,840	2,640	12	11	17.5
54. Alipaz & Del Avion	890	710	3	2	1.1
55. Del Obispo & Stonehill	3,080	4,220	13	28	43.9
60. La Pata & Vista Hermosa	7,470	7,810	42	35	163.1
61. Talega & Vista Hermosa	2,090	1,880	5	4	5.0
62. Vera Cruz & Los Mares	1,400	1,180	3	2	1.8
63. Vera Cruz & Vista Hermosa	3,650	3,780	24	23	48.5
64. La Pata & Pico	7,360	7,950	28	42	150.0
65. Vista Hermosa & Pico	3,840	4,330	7	28	41.1
66. PCH & Camino Capistrano	1,580	2,570	3	5	4.9
67. El Camino Real & Pico	2,500	3,590	5	8	11.5
68. El Camino Real & Cristianitos	480	730	2	2	0.7
100. I-5 SB Ramps & Alicia	5,740	6,490	23	44	116.0
101. I-5 NB Ramps & Alicia	6,300	6,320	4	23	47.4
102. I-5 SB Ramps/Cabot & La Paz	3,540	4,490	9	23	37.5
103. I-5 NB Ramps/Muirlands & La Paz	5,540	5,530	55	53	166.1
104. I-5 SB Ramps & Oso	5,350	6,580	20	39	101.0
105. I-5 NB Ramps & Oso	6,280	6,480	33	51	149.4
106. I-5 SB Ramps & Crown Valley	6,350	8,340	20	69	195.1
107. I-5 NB Ramps & Crown Valley	7,500	8,720	21	48	160.0
108. I-5 SB Ramps & Avery	2,680	3,770	8	20	26.9
109. I-5 NB Ramps & Avery	3,040	3,670	12	24	34.6
110. I-5 SB Ramps & Junipero Serra	3,240	3,680	14	20	33.0
111. I-5 NB Ramps & Junipero Serra	3,130	3,000	8	11	16.1
112. I-5 SB Ramps & Ortega	4,500	5,030	32	44	101.5
113. I-5 NB Ramps & Ortega	5,400	5,480	10	12	33.3
114. Camino Capistrano & I-5 SB Ramps	3,540	4,390	23	46	78.7
115. Valle & La Novia/I-5 NB Ramps	2,010	1,970	32	27	32.6
116. Camino Capistrano & Stonehill	4,210	5,730	20	40	87.1
117. I-5 SB Ramps & Las Ramblas	2,790	3,270	2	3	4.3
118. I-5 NB Ramps & Las Ramblas	1,610	1,790	2	3	2.4
119. I-5 SB Ramps & Estrella	2,860	3,310	20	40	52.7
120. I-5 NB Ramps & Estrella	3,540	3,970	3	6	9.6
121. I-5 SB Ramps & Vista Hermosa	2,050	3,120	3	3	4.3

Table F-80 (cont)
 2025 INTERSECTION DELAY SUMMARY – AIO ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,820	4,140	12	7	20.8
123. I-5 SB Ramps & Pico	3,770	4,850	39	42	97.4
124. I-5 NB Ramps & Pico	5,680	6,390	30	30	100.6
125. I-5 SB Ramp & El Camino Real	1,640	2,470	4	11	9.4
126. I-5 NB Ramps & El Camino Real	1,550	1,980	3	3	2.9
127. I-5 SB Ramps & Cristianitos	470	550	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	730	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,210	1,990	5	5	5.8
151. Greenfield & SR 73 NB Ramps	1,490	1,020	7	3	3.7
152. SR 241 SB Ramps & Santa Margarita	5,280	6,180	35	113	245.3
153. SR 241 NB Ramps & Santa Margarita	7,320	6,420	16	39	102.1
154. SR 241 SB Ramps & Antonio	3,530	4,840	4	25	37.5
155. SR 241 NB Ramps & Antonio	4,840	4,110	32	6	49.9
Total	406,800	454,110			7,889.2

Table F-81
2025 INTERSECTION DELAY SUMMARY – AIO ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,160	8,320	67	64	281.2
2. Jeronimo & Alicia	5,150	6,680	27	42	116.6
3. Trabuco & Alicia	4,840	6,030	25	25	75.5
4. Marguerite & Alicia	3,870	4,000	10	18	30.8
5. Olympiad & Alicia	3,860	4,370	39	33	81.9
6. Santa Margarita & Alicia	5,070	6,410	16	44	100.9
7. Marguerite & Trabuco	2,930	3,330	19	33	46.0
8. Marguerite & Jeronimo	4,380	4,180	40	30	83.5
9. Olympiad & Jeronimo	2,380	2,420	27	7	22.6
10. Marguerite & La Paz	4,400	5,570	16	55	104.7
11. Olympiad & La Paz	2,610	2,890	8	23	24.3
12. Empresa & Santa Margarita	6,820	6,210	23	51	131.5
13. Empresa & Banderas	3,700	3,110	23	16	37.5
14. Empresa & Antonio	4,110	4,080	12	6	20.5
15. Banderas & Antonio	5,600	4,750	27	35	88.2
16. Cabot & Paseo de Valencia	1,700	2,340	6	21	16.5
17. Cabot & Oso	5,490	6,990	18	100	221.6
18. Marguerite & Oso	7,240	7,170	46	44	180.1
19. Felipe & Oso	6,930	7,880	32	40	149.2
20. Antonio & Oso	11,850	11,390	51	94	465.3
21. Marguerite & Felipe	3,630	4,170	32	83	128.4
22. Moulton & Crown Valley	5,610	6,470	14	27	70.3
23. Greenfield & Crown Valley	4,400	6,000	35	51	127.8
24. Cabot & Crown Valley	5,540	7,410	19	67	167.1
25. Forbes & Crown Valley	5,690	7,110	44	80	227.5
26. Puerta Real & Crown Valley	6,970	9,180	39	77	271.9
27. El Regateo & Crown Valley	6,300	7,920	24	60	174.0
28. Los Altos & Crown Valley	6,150	7,440	27	72	194.9
29. Bellogente & Crown Valley	5,940	7,060	25	23	86.4
30. Marguerite & Crown Valley	9,320	10,610	145	138	782.1
31. Antonio & Crown Valley	11,660	13,560	53	100	548.3
32. Golden Lantern & Paseo de Colinas	4,730	4,200	32	12	56.0
33. Cabot & Paseo de Colinas	1,710	1,890	5	4	4.5
34. Cm Capistrano & Paseo de Colinas	1,250	2,160	3	6	4.6
35. Camino Capistrano & Avery	2,180	3,110	10	27	29.4
36. Marguerite & Avery	3,640	4,650	33	48	95.4
37. Golden Lantern & Marina Hills	5,520	5,400	35	20	83.7
39. Camino Capistrano & Junipero Serra	3,200	3,820	53	14	62.0
40. Rancho Viejo & Junipero Serra	3,070	2,810	14	12	21.3
41. Camino Capistrano & Oso Road	2,330	2,030	19	8	16.8
42. Camino Capistrano & Ortega	1,670	1,710	8	8	7.5
43. Del Obispo & Ortega	3,220	3,580	9	12	20.0

Table F-81 (cont)
 2025 INTERSECTION DELAY SUMMARY – AIO ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,870	5,800	48	86	216.8
45. La Novia & Ortega	4,540	4,540	44	40	105.9
46. Antonio/La Pata & Ortega	10,150	11,590	37	97	416.6
47. Alipaz & Del Obispo	3,000	3,450	12	32	40.7
48. Camino Capistrano & Del Obispo	5,040	4,680	40	91	174.3
49. Camino Capistrano & San Juan Creek	3,960	5,030	16	40	73.5
50. Valle & San Juan Creek	3,310	3,700	16	30	45.5
51. La Novia & San Juan Creek	3,740	3,660	40	40	82.2
53. Del Obispo & Del Avion	2,810	2,600	13	11	18.1
54. Alipaz & Del Avion	850	690	3	2	1.1
55. Del Obispo & Stonehill	3,060	4,250	12	27	42.1
60. La Pata & Vista Hermosa	7,610	8,090	40	48	192.4
61. Talega & Vista Hermosa	2,170	1,820	4	4	4.4
62. Vera Cruz & Los Mares	1,460	1,240	3	2	1.9
63. Vera Cruz & Vista Hermosa	3,720	3,960	27	27	57.6
64. La Pata & Pico	7,600	8,490	25	46	161.3
65. Vista Hermosa & Pico	4,370	4,930	6	39	60.7
66. PCH & Camino Capistrano	1,590	2,640	3	6	5.7
67. El Camino Real & Pico	2,450	3,610	5	9	12.4
68. El Camino Real & Cristianitos	480	730	2	2	0.7
100. I-5 SB Ramps & Alicia	5,690	6,450	21	48	119.2
101. I-5 NB Ramps & Alicia	6,380	6,230	4	23	46.9
102. I-5 SB Ramps/Cabot & La Paz	3,450	4,610	8	28	43.5
103. I-5 NB Ramps/Muirlands & La Paz	5,430	5,510	53	44	147.3
104. I-5 SB Ramps & Oso	5,660	6,560	27	33	102.6
105. I-5 NB Ramps & Oso	6,730	6,410	60	55	210.1
106. I-5 SB Ramps & Crown Valley	6,530	8,880	24	88	260.6
107. I-5 NB Ramps & Crown Valley	7,710	9,300	21	64	210.3
108. I-5 SB Ramps & Avery	2,760	3,740	9	20	27.7
109. I-5 NB Ramps & Avery	3,200	3,810	12	19	30.8
110. I-5 SB Ramps & Junipero Serra	3,190	3,820	14	28	42.1
111. I-5 NB Ramps & Junipero Serra	3,270	3,090	8	10	15.9
112. I-5 SB Ramps & Ortega	4,360	5,150	30	55	115.0
113. I-5 NB Ramps & Ortega	5,270	5,760	8	12	30.9
114. Camino Capistrano & I-5 SB Ramps	3,590	4,460	27	46	83.9
115. Valle & La Novia/I-5 NB Ramps	1,960	1,870	19	21	21.3
116. Camino Capistrano & Stonehill	4,250	5,810	21	42	92.6
117. I-5 SB Ramps & Las Ramblas	2,910	3,440	3	3	5.3
118. I-5 NB Ramps & Las Ramblas	1,820	1,970	2	3	2.7
119. I-5 SB Ramps & Estrella	2,910	3,300	24	39	55.2
120. I-5 NB Ramps & Estrella	3,540	4,000	3	5	8.5
121. I-5 SB Ramps & Vista Hermosa	2,080	3,190	3	3	4.4

Table F-81 (cont)
 2025 INTERSECTION DELAY SUMMARY – AIO ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,940	4,470	14	9	26.5
123. I-5 SB Ramps & Pico	3,780	4,950	39	51	111.1
124. I-5 NB Ramps & Pico	5,630	6,320	37	30	110.5
125. I-5 SB Ramp & El Camino Real	1,670	2,470	4	12	10.1
126. I-5 NB Ramps & El Camino Real	1,530	1,970	3	3	2.9
127. I-5 SB Ramps & Cristianitos	470	550	2	2	0.6
128. I-5 NB Ramps & Cristianitos	630	730	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,310	2,230	6	8	8.8
151. Greenfield & SR 73 NB Ramps	1,590	1,060	9	3	4.9
152. SR 241 SB Ramps & Santa Margarita	5,030	5,980	32	113	232.4
153. SR 241 NB Ramps & Santa Margarita	7,240	6,330	14	39	96.7
154. SR 241 SB Ramps & Antonio	3,310	4,490	4	20	28.6
155. SR 241 NB Ramps & Antonio	4,750	3,980	164	6	223.0
Total	417,600	470,890			9,708.2

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,140	8,390	60	77	298.5
2. Jeronimo & Alicia	5,020	6,380	19	35	88.5
3. Trabuco & Alicia	4,680	5,780	19	24	63.2
4. Marguerite & Alicia	3,840	3,940	10	14	26.0
5. Olympiad & Alicia	3,960	4,310	42	23	73.7
6. Santa Margarita & Alicia	4,930	6,480	16	44	101.1
7. Marguerite & Trabuco	2,840	3,190	16	24	33.9
8. Marguerite & Jeronimo	4,080	3,910	39	21	67.0
9. Olympiad & Jeronimo	2,340	2,320	19	4	14.9
10. Marguerite & La Paz	4,300	5,570	15	57	106.1
11. Olympiad & La Paz	2,560	2,940	8	25	26.1
12. Empresa & Santa Margarita	6,670	6,280	25	53	138.8
13. Empresa & Banderas	3,580	3,180	20	18	35.8
14. Empresa & Antonio	4,230	4,430	12	7	22.7
15. Banderas & Antonio	5,680	5,170	27	44	105.8
16. Cabot & Paseo de Valencia	1,640	2,180	7	16	12.9
17. Cabot & Oso	5,300	6,450	15	69	145.7
18. Marguerite & Oso	7,100	7,340	37	30	134.1
19. Felipe & Oso	6,750	7,430	25	37	123.2
20. Antonio & Oso	11,980	11,420	37	75	361.0
21. Marguerite & Felipe	3,500	3,930	23	53	80.2
22. Moulton & Crown Valley	5,450	6,350	14	23	61.8
23. Greenfield & Crown Valley	4,320	5,870	27	42	100.9
24. Cabot & Crown Valley	5,400	6,970	19	55	135.0
25. Forbes & Crown Valley	5,570	6,870	44	80	220.7
26. Puerta Real & Crown Valley	6,750	8,800	35	67	229.4
27. El Regateo & Crown Valley	6,060	7,420	21	51	140.5
28. Los Altos & Crown Valley	5,880	6,850	21	62	152.3
29. Bellogente & Crown Valley	5,650	6,440	20	18	63.6
30. Marguerite & Crown Valley	8,740	9,670	127	91	552.8
31. Antonio & Crown Valley	8,320	9,470	24	62	218.6
32. Golden Lantern & Paseo de Colinas	4,570	4,000	32	9	50.6
33. Cabot & Paseo de Colinas	1,680	1,810	4	4	3.9
34. Cm Capistrano & Paseo de Colinas	1,250	2,120	3	5	4.0
35. Camino Capistrano & Avery	2,090	2,920	8	14	16.0
36. Marguerite & Avery	3,330	4,320	19	40	65.6
37. Golden Lantern & Marina Hills	5,380	5,260	33	20	78.5
39. Camino Capistrano & Junipero Serra	3,270	3,800	46	12	54.5
40. Rancho Viejo & Junipero Serra	2,710	2,460	9	7	11.6
41. Camino Capistrano & Oso Road	2,120	1,850	12	5	9.6
42. Camino Capistrano & Ortega	1,620	1,720	7	11	8.4
43. Del Obispo & Ortega	3,430	3,840	12	16	28.5

Table F-82 (cont)
 2025 INTERSECTION DELAY SUMMARY – AIP ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,940	5,700	24	75	158.4
45. La Novia & Ortega	4,440	4,250	39	28	81.2
46. Antonio/La Pata & Ortega	7,730	8,350	30	40	157.2
47. Alipaz & Del Obispo	3,120	3,530	18	39	53.8
48. Camino Capistrano & Del Obispo	5,130	4,660	42	86	171.2
49. Camino Capistrano & San Juan Creek	3,880	4,820	14	42	71.3
50. Valle & San Juan Creek	3,220	3,550	13	28	39.2
51. La Novia & San Juan Creek	3,680	3,430	39	40	78.0
53. Del Obispo & Del Avion	2,840	2,660	12	11	17.6
54. Alipaz & Del Avion	880	720	3	2	1.1
55. Del Obispo & Stonehill	3,130	4,250	14	28	45.2
60. La Pata & Vista Hermosa	7,430	7,850	44	39	175.9
61. Talega & Vista Hermosa	2,150	1,890	6	4	5.7
62. Vera Cruz & Los Mares	1,400	1,190	4	2	2.2
63. Vera Cruz & Vista Hermosa	3,590	3,750	23	23	46.9
64. La Pata & Pico	7,280	8,010	25	44	148.5
65. Vista Hermosa & Pico	3,860	4,340	7	28	41.3
66. PCH & Camino Capistrano	1,600	2,580	3	5	4.9
67. El Camino Real & Pico	2,490	3,530	5	8	11.3
68. El Camino Real & Cristianitos	520	770	2	2	0.7
100. I-5 SB Ramps & Alicia	5,810	6,520	24	46	122.0
101. I-5 NB Ramps & Alicia	6,400	6,350	4	23	47.7
102. I-5 SB Ramps/Cabot & La Paz	3,490	4,530	8	25	39.2
103. I-5 NB Ramps/Muirlands & La Paz	5,480	5,540	55	51	162.2
104. I-5 SB Ramps & Oso	5,410	6,540	21	39	102.4
105. I-5 NB Ramps & Oso	6,440	6,410	46	51	173.1
106. I-5 SB Ramps & Crown Valley	6,400	8,350	20	35	116.7
107. I-5 NB Ramps & Crown Valley	7,570	8,720	23	48	164.6
108. I-5 SB Ramps & Avery	2,670	3,670	8	15	21.2
109. I-5 NB Ramps & Avery	2,980	3,640	11	24	33.4
110. I-5 SB Ramps & Junipero Serra	3,260	3,590	14	12	24.6
111. I-5 NB Ramps & Junipero Serra	3,130	2,810	8	9	14.0
112. I-5 SB Ramps & Ortega	4,640	5,420	23	42	92.9
113. I-5 NB Ramps & Ortega	5,590	5,870	9	12	33.5
114. Camino Capistrano & I-5 SB Ramps	3,540	4,450	24	51	86.6
115. Valle & La Novia/I-5 NB Ramps	2,110	1,990	28	27	31.3
116. Camino Capistrano & Stonehill	4,300	5,850	20	44	95.4
117. I-5 SB Ramps & Las Ramblas	2,790	3,300	2	3	4.3
118. I-5 NB Ramps & Las Ramblas	1,630	1,790	2	3	2.4
119. I-5 SB Ramps & Estrella	2,850	3,330	20	39	51.9
120. I-5 NB Ramps & Estrella	3,540	4,000	3	6	9.6
121. I-5 SB Ramps & Vista Hermosa	2,070	3,210	3	3	4.4

Table F-82 (cont)
 2025 INTERSECTION DELAY SUMMARY – AIP ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,840	4,160	12	7	20.9
123. I-5 SB Ramps & Pico	3,740	4,580	8	4	13.4
124. I-5 NB Ramps & Pico	5,490	6,240	27	25	84.5
125. I-5 SB Ramp & El Camino Real	1,670	2,480	4	11	9.4
126. I-5 NB Ramps & El Camino Real	1,560	1,940	2	3	2.5
127. I-5 SB Ramps & Cristianitos	470	590	2	2	0.6
128. I-5 NB Ramps & Cristianitos	660	760	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,270	2,060	6	6	7.2
151. Greenfield & SR 73 NB Ramps	1,560	1,010	9	3	4.7
152. SR 241 SB Ramps & Santa Margarita	5,280	6,170	35	113	245.0
153. SR 241 NB Ramps & Santa Margarita	7,330	6,420	16	39	102.1
154. SR 241 SB Ramps & Antonio	3,470	4,810	4	25	37.3
155. SR 241 NB Ramps & Antonio	4,780	4,090	30	6	46.7
Total	405,670	452,940			7,589.0

Table F-83 2025 INTERSECTION DELAY SUMMARY – AIP ALTERNATIVE (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)					
Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,170	8,180	64	64	272.9
2. Jeronimo & Alicia	5,150	6,590	25	40	109.0
3. Trabuco & Alicia	4,790	6,010	23	25	72.3
4. Marguerite & Alicia	3,870	4,030	9	18	29.8
5. Olympiad & Alicia	3,890	4,410	37	33	80.4
6. Santa Margarita & Alicia	5,020	6,410	15	44	99.3
7. Marguerite & Trabuco	2,930	3,310	18	32	44.1
8. Marguerite & Jeronimo	4,340	4,100	39	27	77.8
9. Olympiad & Jeronimo	2,370	2,400	27	6	21.8
10. Marguerite & La Paz	4,400	5,520	16	55	103.9
11. Olympiad & La Paz	2,600	2,850	8	24	24.8
12. Empresa & Santa Margarita	6,770	6,190	21	48	122.0
13. Empresa & Banderas	3,640	3,080	62	35	92.6
14. Empresa & Antonio	4,120	4,080	12	7	21.7
15. Banderas & Antonio	5,560	4,720	27	37	90.2
16. Cabot & Paseo de Valencia	1,660	2,290	5	20	15.0
17. Cabot & Oso	5,400	6,870	16	91	197.7
18. Marguerite & Oso	7,220	7,160	46	44	179.8
19. Felipe & Oso	6,920	7,790	32	40	148.1
20. Antonio & Oso	11,710	11,310	48	94	451.5
21. Marguerite & Felipe	3,650	4,120	32	80	124.0
22. Moulton & Crown Valley	5,480	6,350	12	23	58.8
23. Greenfield & Crown Valley	4,300	5,960	32	51	122.7
24. Cabot & Crown Valley	5,440	7,250	19	62	153.6
25. Forbes & Crown Valley	5,660	7,080	44	80	226.5
26. Puerta Real & Crown Valley	6,980	9,190	39	77	272.2
27. El Regateo & Crown Valley	6,300	7,960	25	62	180.8
28. Los Altos & Crown Valley	6,170	7,480	25	72	192.4
29. Bellogente & Crown Valley	5,960	7,090	25	23	86.7
30. Marguerite & Crown Valley	9,310	10,570	141	134	758.1
31. Antonio & Crown Valley	11,500	13,420	48	97	514.9
32. Golden Lantern & Paseo de Colinas	4,600	4,030	32	11	53.2
33. Cabot & Paseo de Colinas	1,680	1,860	4	4	3.9
34. Cm Capistrano & Paseo de Colinas	1,260	2,180	3	6	4.7
35. Camino Capistrano & Avery	2,090	2,990	7	18	19.0
36. Marguerite & Avery	3,490	4,560	23	46	80.6
37. Golden Lantern & Marina Hills	5,450	5,280	35	16	76.5
39. Camino Capistrano & Junipero Serra	3,220	3,900	46	13	55.2
40. Rancho Viejo & Junipero Serra	2,810	2,570	12	9	15.8
41. Camino Capistrano & Oso Road	2,150	1,930	13	5	10.4
42. Camino Capistrano & Ortega	1,610	1,630	6	9	6.8
43. Del Obispo & Ortega	3,330	3,720	11	15	25.7

Table F-83 (cont)
 2025 INTERSECTION DELAY SUMMARY – AIP ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,890	5,800	28	86	184.4
45. La Novia & Ortega	4,570	4,550	44	42	108.9
46. Antonio/La Pata & Ortega	10,040	11,540	40	91	403.3
47. Alipaz & Del Obispo	3,020	3,490	13	39	48.7
48. Camino Capistrano & Del Obispo	5,020	4,660	39	83	161.8
49. Camino Capistrano & San Juan Creek	3,930	5,060	16	51	89.2
50. Valle & San Juan Creek	3,330	3,800	21	35	56.4
51. La Novia & San Juan Creek	3,740	3,690	42	35	79.5
53. Del Obispo & Del Avion	2,790	2,610	15	12	20.3
54. Alipaz & Del Avion	840	730	3	2	1.1
55. Del Obispo & Stonehill	3,100	4,270	13	28	44.4
60. La Pata & Vista Hermosa	7,530	8,060	39	60	215.9
61. Talega & Vista Hermosa	2,150	1,820	4	4	4.4
62. Vera Cruz & Los Mares	1,460	1,260	3	2	1.9
63. Vera Cruz & Vista Hermosa	3,690	4,000	24	28	55.7
64. La Pata & Pico	7,570	8,410	23	40	141.8
65. Vista Hermosa & Pico	4,280	4,930	6	40	61.9
66. PCH & Camino Capistrano	1,610	2,640	3	6	5.7
67. El Camino Real & Pico	2,420	3,600	5	10	13.4
68. El Camino Real & Cristianitos	520	770	2	2	0.7
100. I-5 SB Ramps & Alicia	5,830	6,440	24	48	124.7
101. I-5 NB Ramps & Alicia	6,240	6,220	4	21	43.2
102. I-5 SB Ramps/Cabot & La Paz	3,410	4,690	8	28	44.1
103. I-5 NB Ramps/Muirlands & La Paz	5,380	5,570	51	42	141.2
104. I-5 SB Ramps & Oso	5,620	6,470	27	30	96.1
105. I-5 NB Ramps & Oso	6,690	6,330	60	53	204.7
106. I-5 SB Ramps & Crown Valley	6,540	8,900	25	51	171.5
107. I-5 NB Ramps & Crown Valley	7,720	9,310	21	64	210.5
108. I-5 SB Ramps & Avery	2,700	3,620	8	14	20.1
109. I-5 NB Ramps & Avery	3,050	3,740	10	18	27.2
110. I-5 SB Ramps & Junipero Serra	3,250	3,770	15	24	38.7
111. I-5 NB Ramps & Junipero Serra	3,220	2,930	9	10	16.2
112. I-5 SB Ramps & Ortega	4,540	5,480	21	48	99.6
113. I-5 NB Ramps & Ortega	5,630	6,050	9	15	39.3
114. Camino Capistrano & I-5 SB Ramps	3,630	4,610	28	57	101.2
115. Valle & La Novia/I-5 NB Ramps	2,020	1,890	19	19	20.6
116. Camino Capistrano & Stonehill	4,350	5,890	23	42	96.5
117. I-5 SB Ramps & Las Ramblas	2,960	3,450	3	4	6.3
118. I-5 NB Ramps & Las Ramblas	1,860	2,000	2	3	2.7
119. I-5 SB Ramps & Estrella	2,930	3,320	24	37	53.7
120. I-5 NB Ramps & Estrella	3,570	4,030	3	6	9.7
121. I-5 SB Ramps & Vista Hermosa	2,080	3,170	3	3	4.4

Table F-83 (cont)
 2025 INTERSECTION DELAY SUMMARY – AIP ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,920	4,520	14	9	26.5
123. I-5 SB Ramps & Pico	3,740	4,770	9	5	16.0
124. I-5 NB Ramps & Pico	5,440	6,150	30	24	86.3
125. I-5 SB Ramp & El Camino Real	1,700	2,470	4	10	8.8
126. I-5 NB Ramps & El Camino Real	1,540	1,950	2	3	2.5
127. I-5 SB Ramps & Cristianitos	470	580	2	2	0.6
128. I-5 NB Ramps & Cristianitos	660	760	2	2	0.8
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,240	2,200	6	7	8.0
151. Greenfield & SR 73 NB Ramps	1,520	1,060	8	3	4.3
152. SR 241 SB Ramps & Santa Margarita	5,000	5,980	30	113	229.4
153. SR 241 NB Ramps & Santa Margarita	7,220	6,330	13	39	94.6
154. SR 241 SB Ramps & Antonio	3,350	4,500	4	20	28.7
155. SR 241 NB Ramps & Antonio	4,780	3,970	168	6	229.7
Total	415,700	469,320			9,307.5

Table F-84
2025 INTERSECTION DELAY SUMMARY – I-5 ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,340	8,340	60	69	282.2
2. Jeronimo & Alicia	5,190	6,520	44	48	150.4
3. Trabuco & Alicia	4,660	5,870	39	67	159.7
4. Marguerite & Alicia	4,020	4,160	14	16	34.1
5. Olympiad & Alicia	3,610	3,870	13	12	25.9
6. Santa Margarita & Alicia	4,900	6,360	15	44	98.2
7. Marguerite & Trabuco	2,970	3,430	30	40	62.9
8. Marguerite & Jeronimo	4,190	4,120	48	21	79.9
9. Olympiad & Jeronimo	1,640	1,790	5	3	3.8
10. Marguerite & La Paz	4,390	5,420	13	44	82.1
11. Olympiad & La Paz	1,980	2,130	7	7	8.0
12. Empresa & Santa Margarita	6,650	6,110	127	77	365.3
13. Empresa & Banderas	3,550	3,060	60	39	92.3
14. Empresa & Antonio	4,000	3,930	12	6	19.9
15. Banderas & Antonio	5,380	4,530	24	33	77.4
16. Cabot & Paseo de Valencia	1,490	2,020	4	9	6.7
17. Cabot & Oso	5,090	6,330	14	69	141.1
18. Marguerite & Oso	7,270	7,470	40	32	147.2
19. Felipe & Oso	6,470	7,100	55	97	290.2
20. Antonio & Oso	10,500	9,780	185	117	857.4
21. Marguerite & Felipe	3,490	3,920	25	51	79.8
22. Moulton & Crown Valley	5,900	6,840	19	33	93.8
23. Greenfield & Crown Valley	4,770	6,400	27	42	110.4
24. Cabot & Crown Valley	5,720	7,350	23	62	163.1
25. Forbes & Crown Valley	5,860	7,250	53	91	269.5
26. Puerta Real & Crown Valley	7,380	9,160	40	80	285.6
27. El Regateo & Crown Valley	6,620	7,770	24	55	162.8
28. Los Altos & Crown Valley	6,400	7,180	24	67	176.3
29. Bellogente & Crown Valley	6,170	6,750	24	20	78.6
30. Marguerite & Crown Valley	9,300	10,120	77	83	432.2
31. Antonio & Crown Valley	6,020	7,130	33	88	229.5
32. Golden Lantern & Paseo de Colinas	5,090	4,480	94	35	176.5
33. Cabot & Paseo de Colinas	2,310	2,330	4	6	6.5
34. Cm Capistrano & Paseo de Colinas	1,960	2,710	6	14	13.8
35. Camino Capistrano & Avery	2,220	2,900	4	9	9.7
36. Marguerite & Avery	3,550	4,510	27	51	90.5
37. Golden Lantern & Marina Hills	4,380	4,100	40	35	88.5
39. Camino Capistrano & Junipero Serra	2,210	2,460	39	33	46.5
40. Rancho Viejo & Junipero Serra	2,520	2,470	8	7	10.4
41. Camino Capistrano & Oso Road	1,830	1,340	4	2	2.8
42. Camino Capistrano & Ortega	1,880	2,040	18	24	23.0
43. Del Obispo & Ortega	3,830	4,410	15	27	49.0

Table F-84 (cont)
2025 INTERSECTION DELAY SUMMARY – I-5 ALTERNATIVE
(COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	6,010	5,620	30	30	96.9
45. La Novia & Ortega	4,890	4,630	33	67	131.0
46. Antonio/La Pata & Ortega	3,930	4,170	19	53	82.1
47. Alipaz & Del Obispo	3,250	3,690	23	20	41.3
48. Camino Capistrano & Del Obispo	5,520	5,170	75	107	268.7
49. Camino Capistrano & San Juan Creek	3,670	4,410	10	19	33.5
50. Valle & San Juan Creek	2,930	3,220	60	46	90.0
51. La Novia & San Juan Creek	2,970	2,750	117	83	159.9
53. Del Obispo & Del Avion	2,940	2,850	15	12	21.8
54. Alipaz & Del Avion	1,010	840	3	3	1.5
55. Del Obispo & Stonehill	3,110	4,330	62	67	134.1
60. La Pata & Vista Hermosa	4,260	4,080	62	25	101.7
61. Talega & Vista Hermosa	2,420	2,500	7	12	13.0
62. Vera Cruz & Los Mares	1,240	1,060	3	2	1.6
63. Vera Cruz & Vista Hermosa	4,690	4,640	72	94	215.0
64. La Pata & Pico	6,130	6,040	51	40	154.0
65. Vista Hermosa & Pico	4,150	4,410	15	28	51.6
66. PCH & Camino Capistrano	1,930	2,860	12	55	50.1
67. El Camino Real & Pico	2,750	3,650	32	62	87.3
68. El Camino Real & Cristianitos	570	850	2	2	0.8
100. I-5 SB Ramps & Alicia	6,200	6,620	32	51	148.9
101. I-5 NB Ramps & Alicia	6,810	6,560	5	25	55.0
102. I-5 SB Ramps/Cabot & La Paz	3,490	4,830	16	48	79.9
103. I-5 NB Ramps/Muirlands & La Paz	5,040	5,600	32	37	102.4
104. I-5 SB Ramps & Oso	5,390	6,950	19	53	130.8
105. I-5 NB Ramps & Oso	6,440	7,040	13	39	99.5
106. I-5 SB Ramps & Crown Valley	7,040	8,650	25	35	133.0
107. I-5 NB Ramps & Crown Valley	8,290	9,390	35	64	247.5
108. I-5 SB Ramps & Avery	3,020	3,710	14	15	27.2
109. I-5 NB Ramps & Avery	3,270	3,680	25	18	41.1
110. I-5 SB Ramps & Junipero Serra	2,560	2,840	8	12	15.2
111. I-5 NB Ramps & Junipero Serra	2,660	2,640	4	6	7.4
112. I-5 SB Ramps & Ortega	5,370	6,010	30	48	124.9
113. I-5 NB Ramps & Ortega	6,250	6,210	33	46	136.6
114. Camino Capistrano & I-5 SB Ramps	3,800	4,570	39	53	108.4
115. Valle & La Novia/I-5 NB Ramps	2,320	2,300	53	57	70.6
116. Camino Capistrano & Stonehill	4,540	5,930	53	51	150.8
117. I-5 SB Ramps & Las Ramblas	2,760	3,450	2	2	3.5
118. I-5 NB Ramps & Las Ramblas	1,890	1,860	2	2	2.1
119. I-5 SB Ramps & Estrella	3,060	3,710	28	62	87.7
120. I-5 NB Ramps & Estrella	3,710	4,360	3	11	16.4
121. I-5 SB Ramps & Vista Hermosa	2,530	3,360	8	16	20.6

Table F-84 (cont)
 2025 INTERSECTION DELAY SUMMARY – I-5 ALTERNATIVE
 (COMMITTED CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	4,180	4,570	12	12	29.2
123. I-5 SB Ramps & Pico	3,920	4,760	23	11	39.6
124. I-5 NB Ramps & Pico	5,830	6,420	21	18	66.1
125. I-5 SB Ramp & El Camino Real	1,760	2,550	4	12	10.5
126. I-5 NB Ramps & El Camino Real	1,550	1,940	2	3	2.5
127. I-5 SB Ramps & Cristianitos	470	650	2	2	0.6
128. I-5 NB Ramps & Cristianitos	710	850	2	3	1.1
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,290	2,190	5	6	6.8
151. Greenfield & SR 73 NB Ramps	1,530	1,120	9	5	5.4
152. SR 241 SB Ramps & Santa Margarita	5,260	6,150	33	110	236.1
153. SR 241 NB Ramps & Santa Margarita	7,330	6,400	200	40	478.3
154. SR 241 SB Ramps & Antonio	3,190	4,330	3	15	20.7
155. SR 241 NB Ramps & Antonio	4,630	3,930	200	6	263.8
Total	403,590	445,950			10,292.3

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,200	7,960	62	62	261.1
2. Jeronimo & Alicia	5,090	6,370	19	37	92.3
3. Trabuco & Alicia	4,580	5,780	18	23	59.8
4. Marguerite & Alicia	3,870	4,000	9	15	26.3
5. Olympiad & Alicia	3,910	4,350	40	24	72.4
6. Santa Margarita & Alicia	4,870	6,320	16	42	95.4
7. Marguerite & Trabuco	2,800	3,200	13	24	31.4
8. Marguerite & Jeronimo	3,960	3,860	32	18	54.5
9. Olympiad & Jeronimo	2,140	2,310	9	5	8.6
10. Marguerite & La Paz	4,210	5,240	12	40	72.3
11. Olympiad & La Paz	2,350	2,600	7	13	14.0
12. Empresa & Santa Margarita	6,590	6,060	123	77	354.8
13. Empresa & Banderas	3,460	2,980	51	28	72.2
14. Empresa & Antonio	4,040	3,900	11	5	17.8
15. Banderas & Antonio	5,380	4,510	25	32	77.5
16. Cabot & Paseo de Valencia	1,500	2,050	4	11	7.9
17. Cabot & Oso	5,040	6,180	15	62	127.4
18. Marguerite & Oso	7,100	7,220	37	25	123.1
19. Felipe & Oso	6,440	7,140	51	100	289.6
20. Antonio & Oso	10,670	9,800	185	120	875.0
21. Marguerite & Felipe	3,490	3,950	23	55	82.6
22. Moulton & Crown Valley	5,320	6,260	12	20	52.5
23. Greenfield & Crown Valley	4,250	5,820	21	40	89.5
24. Cabot & Crown Valley	5,360	6,960	16	55	130.2
25. Forbes & Crown Valley	5,620	6,990	44	72	208.5
26. Puerta Real & Crown Valley	7,070	8,800	39	69	245.3
27. El Regateo & Crown Valley	6,300	7,430	23	48	139.3
28. Los Altos & Crown Valley	6,090	6,840	23	62	156.7
29. Bellogente & Crown Valley	5,840	6,420	20	16	61.0
30. Marguerite & Crown Valley	8,910	9,750	127	91	560.8
31. Antonio & Crown Valley	6,300	7,090	14	42	107.2
32. Golden Lantern & Paseo de Colinas	4,490	3,930	28	10	45.8
33. Cabot & Paseo de Colinas	1,780	1,860	3	4	3.6
34. Cm Capistrano & Paseo de Colinas	1,420	2,150	4	5	4.6
35. Camino Capistrano & Avery	2,320	3,000	12	19	23.6
36. Marguerite & Avery	3,370	4,420	19	46	74.3
37. Golden Lantern & Marina Hills	5,330	5,240	33	20	78.0
39. Camino Capistrano & Junipero Serra	3,130	3,750	32	12	40.3
40. Rancho Viejo & Junipero Serra	2,590	2,460	9	7	11.3
41. Camino Capistrano & Oso Road	1,990	1,720	8	4	6.3
42. Camino Capistrano & Ortega	1,500	1,570	5	9	6.0
43. Del Obispo & Ortega	3,330	3,740	9	14	22.9

Table F-85 (cont)
2025 INTERSECTION DELAY SUMMARY – I-5 ALTERNATIVE
(BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,830	5,580	25	72	152.1
45. La Novia & Ortega	4,330	4,120	30	27	67.0
46. Antonio/La Pata & Ortega	6,060	6,370	53	53	183.0
47. Alipaz & Del Obispo	3,100	3,470	19	33	48.2
48. Camino Capistrano & Del Obispo	4,940	4,450	40	69	140.2
49. Camino Capistrano & San Juan Creek	3,770	4,800	11	48	75.5
50. Valle & San Juan Creek	3,230	3,610	14	33	45.7
51. La Novia & San Juan Creek	3,480	3,260	32	24	52.7
53. Del Obispo & Del Avion	2,750	2,540	11	8	14.0
54. Alipaz & Del Avion	860	680	3	2	1.1
55. Del Obispo & Stonehill	3,140	4,210	14	25	41.4
60. La Pata & Vista Hermosa	5,820	5,910	83	44	206.4
61. Talega & Vista Hermosa	2,280	2,060	6	4	6.1
62. Vera Cruz & Los Mares	1,390	1,180	4	2	2.2
63. Vera Cruz & Vista Hermosa	3,330	3,440	15	19	32.0
64. La Pata & Pico	6,440	6,790	42	77	220.4
65. Vista Hermosa & Pico	3,870	4,300	8	23	36.1
66. PCH & Camino Capistrano	1,600	2,470	3	5	4.8
67. El Camino Real & Pico	2,480	3,450	6	7	10.8
68. El Camino Real & Cristianitos	570	830	2	2	0.8
100. I-5 SB Ramps & Alicia	6,090	6,610	30	51	144.4
101. I-5 NB Ramps & Alicia	6,760	6,460	5	23	50.7
102. I-5 SB Ramps/Cabot & La Paz	3,350	4,720	7	27	41.9
103. I-5 NB Ramps/Muirlands & La Paz	4,880	5,420	30	32	88.8
104. I-5 SB Ramps & Oso	5,260	6,670	18	48	115.2
105. I-5 NB Ramps & Oso	6,280	6,700	25	53	142.3
106. I-5 SB Ramps & Crown Valley	6,680	8,500	25	35	129.0
107. I-5 NB Ramps & Crown Valley	7,960	8,900	28	51	188.0
108. I-5 SB Ramps & Avery	2,910	3,840	10	25	34.8
109. I-5 NB Ramps & Avery	3,160	3,770	20	24	42.7
110. I-5 SB Ramps & Junipero Serra	3,160	3,600	12	15	25.5
111. I-5 NB Ramps & Junipero Serra	2,920	2,910	6	11	13.8
112. I-5 SB Ramps & Ortega	4,680	5,400	23	40	89.9
113. I-5 NB Ramps & Ortega	5,730	5,820	12	12	38.5
114. Camino Capistrano & I-5 SB Ramps	3,470	4,570	21	48	81.2
115. Valle & La Novia/I-5 NB Ramps	2,170	2,060	33	28	35.9
116. Camino Capistrano & Stonehill	4,250	5,840	16	46	93.5
117. I-5 SB Ramps & Las Ramblas	2,930	3,510	2	3	4.6
118. I-5 NB Ramps & Las Ramblas	1,830	1,970	2	3	2.7
119. I-5 SB Ramps & Estrella	2,910	3,390	21	46	60.3
120. I-5 NB Ramps & Estrella	3,710	4,130	3	8	12.3
121. I-5 SB Ramps & Vista Hermosa	2,260	3,400	4	7	9.1

Table F-85 (cont)
 2025 INTERSECTION DELAY SUMMARY – I-5 ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH PROPOSED RMV PLAN)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,940	4,300	11	7	20.4
123. I-5 SB Ramps & Pico	3,750	4,120	12	5	18.2
124. I-5 NB Ramps & Pico	5,370	5,790	13	11	37.1
125. I-5 SB Ramp & El Camino Real	1,740	2,500	4	12	10.3
126. I-5 NB Ramps & El Camino Real	1,570	1,930	2	3	2.5
127. I-5 SB Ramps & Cristianitos	470	640	2	2	0.6
128. I-5 NB Ramps & Cristianitos	710	830	2	3	1.1
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,110	2,010	4	5	5.1
151. Greenfield & SR 73 NB Ramps	1,460	990	8	3	4.1
152. SR 241 SB Ramps & Santa Margarita	5,270	6,160	33	110	236.5
153. SR 241 NB Ramps & Santa Margarita	7,330	6,400	16	39	101.9
154. SR 241 SB Ramps & Antonio	3,260	4,360	4	15	21.8
155. SR 241 NB Ramps & Antonio	4,680	3,940	145	6	195.1
Total	396,710	439,750			8,326.2

Table F-86
 2025 INTERSECTION DELAY SUMMARY – I-5 ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
1. Muirlands & Alicia	7,300	8,370	67	64	284.7
2. Jeronimo & Alicia	5,200	6,440	27	42	114.1
3. Trabuco & Alicia	4,740	5,850	23	24	69.3
4. Marguerite & Alicia	3,920	4,050	10	19	32.3
5. Olympiad & Alicia	3,960	4,370	42	27	79.0
6. Santa Margarita & Alicia	4,940	6,300	15	42	94.1
7. Marguerite & Trabuco	2,870	3,240	14	25	33.7
8. Marguerite & Jeronimo	4,110	3,970	33	25	65.2
9. Olympiad & Jeronimo	2,270	2,300	15	6	13.3
10. Marguerite & La Paz	4,290	5,410	13	48	87.6
11. Olympiad & La Paz	2,470	2,570	7	21	19.8
12. Empresa & Santa Margarita	6,630	5,990	127	75	358.7
13. Empresa & Banderas	3,410	2,850	51	25	68.1
14. Empresa & Antonio	3,790	3,550	9	5	14.4
15. Banderas & Antonio	5,110	4,190	24	30	69.0
16. Cabot & Paseo de Valencia	1,570	2,200	4	15	10.9
17. Cabot & Oso	5,210	6,720	18	104	220.2
18. Marguerite & Oso	7,170	7,110	42	37	156.7
19. Felipe & Oso	6,700	7,640	35	42	154.3
20. Antonio & Oso	9,660	9,170	138	104	635.2
21. Marguerite & Felipe	3,760	4,270	33	97	149.5
22. Moulton & Crown Valley	5,390	6,430	12	25	62.6
23. Greenfield & Crown Valley	4,290	5,860	25	40	94.9
24. Cabot & Crown Valley	5,420	6,980	16	55	130.7
25. Forbes & Crown Valley	5,640	6,800	44	75	210.6
26. Puerta Real & Crown Valley	7,480	9,780	42	67	269.3
27. El Regateo & Crown Valley	6,740	8,390	27	77	230.0
28. Los Altos & Crown Valley	6,550	7,880	27	64	189.2
29. Bellogente & Crown Valley	6,330	7,490	27	30	109.9
30. Marguerite & Crown Valley	9,710	10,920	149	145	841.7
31. Antonio & Crown Valley	9,260	10,660	189	134	882.9
32. Golden Lantern & Paseo de Colinas	4,500	4,040	28	12	48.5
33. Cabot & Paseo de Colinas	1,780	1,890	4	4	4.1
34. Cm Capistrano & Paseo de Colinas	1,420	2,190	4	6	5.2
35. Camino Capistrano & Avery	2,350	3,050	12	21	25.6
36. Marguerite & Avery	3,550	4,680	20	44	76.9
37. Golden Lantern & Marina Hills	5,350	5,260	35	19	79.8
39. Camino Capistrano & Junipero Serra	3,150	3,750	37	12	44.9
40. Rancho Viejo & Junipero Serra	2,710	2,560	10	8	13.2
41. Camino Capistrano & Oso Road	2,060	1,770	9	4	7.1
42. Camino Capistrano & Ortega	1,510	1,500	5	6	4.6
43. Del Obispo & Ortega	3,300	3,660	9	16	24.5

Table F-86 (cont)
 2025 INTERSECTION DELAY SUMMARY – I-5 ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
44. Rancho Viejo & Ortega	5,880	5,770	27	80	172.3
45. La Novia & Ortega	4,540	4,560	42	44	108.7
46. Antonio/La Pata & Ortega	8,070	9,220	123	200	787.9
47. Alipaz & Del Obispo	3,030	3,460	15	28	39.5
48. Camino Capistrano & Del Obispo	4,980	4,530	44	72	151.5
49. Camino Capistrano & San Juan Creek	3,890	5,140	13	39	69.7
50. Valle & San Juan Creek	3,560	3,920	37	44	84.5
51. La Novia & San Juan Creek	3,670	3,610	53	32	86.1
53. Del Obispo & Del Avion	2,770	2,550	14	9	17.1
54. Alipaz & Del Avion	860	680	3	2	1.1
55. Del Obispo & Stonehill	3,120	4,240	14	28	45.1
60. La Pata & Vista Hermosa	5,940	6,110	83	75	264.2
61. Talega & Vista Hermosa	2,270	1,960	4	4	4.7
62. Vera Cruz & Los Mares	1,430	1,210	3	2	1.9
63. Vera Cruz & Vista Hermosa	3,340	3,670	18	28	45.2
64. La Pata & Pico	6,760	7,370	37	86	245.5
65. Vista Hermosa & Pico	4,300	4,950	6	35	55.3
66. PCH & Camino Capistrano	1,620	2,520	3	5	4.9
67. El Camino Real & Pico	2,420	3,520	4	8	10.5
68. El Camino Real & Cristianitos	570	850	2	2	0.8
100. I-5 SB Ramps & Alicia	6,200	6,730	32	53	154.2
101. I-5 NB Ramps & Alicia	6,930	6,520	5	24	53.1
102. I-5 SB Ramps/Cabot & La Paz	3,370	4,810	7	32	49.3
103. I-5 NB Ramps/Muirlands & La Paz	4,890	5,530	24	37	89.4
104. I-5 SB Ramps & Oso	5,180	6,460	14	30	74.0
105. I-5 NB Ramps & Oso	6,350	6,720	33	55	160.9
106. I-5 SB Ramps & Crown Valley	6,880	9,380	33	72	250.7
107. I-5 NB Ramps & Crown Valley	8,330	10,080	21	40	160.6
108. I-5 SB Ramps & Avery	2,990	3,770	12	19	29.9
109. I-5 NB Ramps & Avery	3,300	3,950	24	24	48.3
110. I-5 SB Ramps & Junipero Serra	3,210	3,640	12	20	30.9
111. I-5 NB Ramps & Junipero Serra	3,110	2,970	7	11	15.1
112. I-5 SB Ramps & Ortega	4,710	5,470	21	44	94.3
113. I-5 NB Ramps & Ortega	5,770	6,130	12	16	46.5
114. Camino Capistrano & I-5 SB Ramps	3,600	4,830	24	51	92.4
115. Valle & La Novia/I-5 NB Ramps	2,250	2,030	32	25	34.1
116. Camino Capistrano & Stonehill	4,290	5,840	15	46	92.5
117. I-5 SB Ramps & Las Ramblas	3,020	3,630	2	4	5.7
118. I-5 NB Ramps & Las Ramblas	1,980	2,090	2	3	2.8
119. I-5 SB Ramps & Estrella	2,950	3,400	24	40	57.4
120. I-5 NB Ramps & Estrella	3,650	4,180	3	7	11.2
121. I-5 SB Ramps & Vista Hermosa	2,260	3,460	4	7	9.2

Table F-86 (cont)
 2025 INTERSECTION DELAY SUMMARY – I-5 ALTERNATIVE
 (BUILDOUT CIRCULATION SYSTEM WITH OCP-2000 FOR RMV)

Intersection	Peak Hour Volume		Stopped Delay Per Vehicle (Seconds)		Total Hours of Delay During the Peak Hours
	AM	PM	AM	PM	
122. I-5 NB Ramps & Vista Hermosa	3,980	4,630	13	8	24.7
123. I-5 SB Ramps & Pico	3,680	4,160	14	5	20.1
124. I-5 NB Ramps & Pico	5,240	5,670	16	11	40.6
125. I-5 SB Ramp & El Camino Real	1,800	2,550	5	13	11.7
126. I-5 NB Ramps & El Camino Real	1,550	1,960	2	3	2.5
127. I-5 SB Ramps & Cristianitos	470	630	2	2	0.6
128. I-5 NB Ramps & Cristianitos	710	850	2	3	1.1
129. I-5 SB Ramps & Basilone	700	1,030	2	4	1.5
130. I-5 NB Ramps & Basilone	730	1,060	2	3	1.3
150. Greenfield & SR 73 SB Ramps	2,140	2,000	5	5	5.8
151. Greenfield & SR 73 NB Ramps	1,480	1,030	8	3	4.1
152. SR 241 SB Ramps & Santa Margarita	5,030	5,950	30	110	223.7
153. SR 241 NB Ramps & Santa Margarita	7,220	6,260	14	37	92.4
154. SR 241 SB Ramps & Antonio	3,030	4,200	4	18	24.4
155. SR 241 NB Ramps & Antonio	4,650	3,880	177	6	235.1
Total	408,220	459,420			10,535.2

APPENDIX G
PEAK HOUR ICU WORKSHEETS

This appendix contains existing and long-range (year 2025) AM and PM peak hour intersection capacity utilization (ICU) worksheets for intersections in the SOCTIIP traffic analysis study area. Year 2025 ICU worksheets are included for the SOCTIIP No Action Alternative and the various SOCTIIP Build Alternative scenarios that were studied in the SOCTIIP traffic and circulation analysis. For intersections that are impacted by the various Build Alternatives, ICU worksheets with and without mitigation are included. The ICU data sets contained in this appendix are presented in the following order.

ICU DATA SETS

Scenario	Data Set
Existing	1
2025 No Action Alternative (Committed Circulation System with Proposed RMV Plan	2
2025 No Action Alternative (Committed Circulation System with OCP-2000 for RMV)	3
2025 No Action Alternative (Committed Circulation System with Existing General Plan for RMV).....	4
2025 No Action Alternative (Committed Circulation System with No Future Development in RMV).....	5
2025 No Action Alternative (Buildout Circulation System with Proposed RMV Plan	6
2025 No Action Alternative (Buildout Circulation System with OCP-2000 for RMV)	7
2025 FEC-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	8
2025 FEC-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	9
2025 FEC-Initial and Ultimate Alternative (Buildout Circulation System with OCP-2000 for RMV).....	10
2025 FEC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV).....	11
2025 FEC-TV-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	12
2025 FEC-TV-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	13
2025 FEC-TV-Initial and Ultimate Alternative (Buildout Circulation System with OCP-2000 for RMV).....	14
2025 FEC-CV-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	15
2025 FEC-CV-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	16
2025 FEC-OHV-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	17

ICU DATA SETS (cont)

Scenario	Data Set
2025 FEC-OHV-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	18
2025 FEC-APV-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	19
2025 FEC-APV-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	20
2025 CC-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	21
2025 CC-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	22
2025 CC-Initial and Ultimate Alternative (Buildout Circulation System with OCP-2000 for RMV).....	23
2025 CC-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV).....	24
2025 CC-ALPV-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	25
2025 CC-ALPV-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	26
2025 CC-OHV-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	27
2025 CC-OHV-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	28
2025 A7C-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	29
2025 A7C-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	30
2025 A7C-Ultimate Alternative (Buildout Toll-Free Circulation System with OCP-2000 for RMV).....	31
2025 A7C-FECV-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	32
2025 A7C-FECV-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	33
2025 A7C-FECV-Initial and Ultimate Alternative (Buildout Circulation System with OCP-2000 for RMV).....	34
2025 A7C-FECV-C-Initial and Ultimate Alternative (Committed Circulation System with Proposed RMV Plan)	35
2025 A7C-FECV-C-Initial and Ultimate Alternative (Buildout Circulation System with Proposed RMV Plan)	36
2025 AIO Alternative (Buildout Circulation System with Proposed RMV Plan	37
2025 AIO Alternative (Buildout Circulation System with OCP-2000 for RMV).....	38
2025 AIP Alternative (Buildout Circulation System with Proposed RMV Plan.....	39

ICU DATA SETS (cont)

Scenario	Data Set
2025 AIP Alternative (Buildout Circulation System with OCP-2000 for RMV).....	40
2025 I-5 Alternative (Committed Circulation System with Proposed RMV Plan.....	41
2025 I-5 Alternative (Buildout Circulation System with Proposed RMV Plan.....	42
2025 I-5 Alternative (Buildout Circulation System with OCP-2000 for RMV)	43

ICU Calculation Methodology

The ICU calculation procedure is based on a critical movement methodology that shows the amount of capacity utilized by each critical movement at an intersection. For City of San Clemente intersections, a capacity of 1,600 vehicles per hour (VPH) per lane is assumed with no clearance interval. For intersections in all of the other jurisdictions within the SCSAM primary modeling area, a capacity of 1700 VPH per lane is assumed together with a .05 clearance interval. A "de-facto" right-turn lane is used in the ICU calculation for cases where a curb lane is wide enough to separately serve both through and right-turn traffic (typically with a width of 19 feet from curb to outside of through-lane with parking prohibited during peak periods). Such lanes are treated the same as striped right-turn lanes during the ICU calculations, but they are denoted on the ICU calculation worksheets using the letter "d" in place of a numerical entry for right-turn lanes.

The methodology also incorporates a check for right-turn capacity utilization. Both right-turn-on-green (RTOG) and right-turn-on-red (RTOR) capacity availability are calculated and checked against the total right-turn capacity need. If insufficient capacity is available, then an adjustment is made to the total capacity utilization value. The following example shows how this adjustment is made.

Example for Northbound Right

1. Right-Turn-On-Green (RTOG)

If NBT is critical move, then:

$$RTOG = V/C (NBT)$$

Otherwise,

$$RTOG = V/C (NBL) + V/C (SBT) - V/C (SBL)$$

2. Right-Turn-On-Red (RTOR)

If WBL is critical move, then:

$$RTOR = V/C (WBL)$$

Otherwise,

$$RTOR = V/C (EBL) + V/C (WBT) - V/C (EBT)$$

3. Right-Turn Overlap Adjustment

If the northbound right is assumed to overlap with the adjacent westbound left, adjustments to the RTOG and RTOR values are made as follows:

$$\begin{aligned} \text{RTOG} &= \text{RTOG} + V/C (\text{WBL}) \\ \text{RTOR} &= \text{RTOR} - V/C (\text{WBL}) \end{aligned}$$

4. Total Right-Turn Capacity (RTC) Availability For NBR

$$\begin{aligned} \text{RTC} &= \text{RTOG} + \text{factor} \times \text{RTOR} \\ \text{Where factor} &= \text{RTOR saturation flow factor (0\% for County intersections,} \\ &75\% \text{ for intersections in all other jurisdictions within the study area)} \end{aligned}$$

Right-turn adjustment is then as follows: Additional ICU = V/C (NBR) – RTC

A zero or negative value indicates that adequate capacity is available and no adjustment is necessary. A positive value indicates that the available RTOR and RTOG capacity does not adequately accommodate the right-turn V/C, therefore the right-turn is essentially considered to be a critical movement. In such cases, the right-turn adjustment is noted on the ICU worksheet and it is included in the total capacity utilization value. When it is determined that a right-turn adjustment is required for more than one right-turn movement, the word "multi" is printed on the worksheet instead of an actual right-turn movement reference, and the right-turn adjustments are cumulatively added to the total capacity utilization value. In such cases, further operational evaluation is typically carried out to determine if under actual operational conditions, the critical right-turns would operate simultaneously, and therefore a right-turn adjustment credit should be applied.

Shared Lane V/C Methodology

For intersection approaches where shared usage of a lane is permitted by more than one turn movement (e.g., left/through, through/right, left/through/right), the individual turn volumes are evaluated to determine whether dedication of the shared lane is warranted to any one given turn movement. The following example demonstrates how this evaluation is carried out:

Example for Shared Left/Through Lane

1. Average Lane Volume (ALV)

$$\text{ALV} = \frac{\text{Left-Turn Volume} + \text{Through Volume}}{\text{Total Left} + \text{Through Approach Lanes (including shared lane)}}$$

2. ALV for Each Approach

$$\text{ALV (Left)} = \frac{\text{Left-Turn Volume}}{\text{Left Approach Lanes (including shared lane)}}$$

$$ALV (\text{Through}) = \frac{\text{Through Volume}}{\text{Through Approach Lanes (including shared lane)}}$$

3. Lane Dedication is Warranted

If ALV (Left) is greater than ALV then full dedication of the shared lane to the left-turn approach is warranted. Left-turn and through V/C ratios for this case are calculated as follows:

$$V/C (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (including shared lane)}}$$

$$V/C (\text{Through}) = \frac{\text{Through Volume}}{\text{Through Approach Capacity (excluding shared lane)}}$$

Similarly, if ALV (Through) is greater than ALV then full dedication to the through approach is warranted, and left-turn and through V/C ratios are calculated as follows:

$$V/C (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (excluding shared lane)}}$$

$$V/C (\text{Through}) = \frac{\text{Through Volume}}{\text{Through Approach Capacity (including shared lane)}}$$

4. Lane Dedication is not Warranted

If ALV (Left) and ALV (Through) are both less than ALV, the left/through lane is assumed to be truly shared and each left, left/through or through approach lane carries an evenly distributed volume of traffic equal to ALV. A combined left/through V/C ratio is calculated as follows:

$$V/C (\text{Left/Through}) = \frac{\text{Left-Turn Volume} + \text{Through Volume}}{\text{Total Left} + \text{Through Approach Capacity (including shared lane)}}$$

This V/C (Left/Through) ratio is assigned as the V/C (Through) ratio for the critical movement analysis and ICU summary listing.

If split phasing has not been designated for this approach, the relative proportion of V/C (Through) that is attributed to the left-turn volume is estimated as follows:

If approach has more than one left-turn (including shared lane), then:

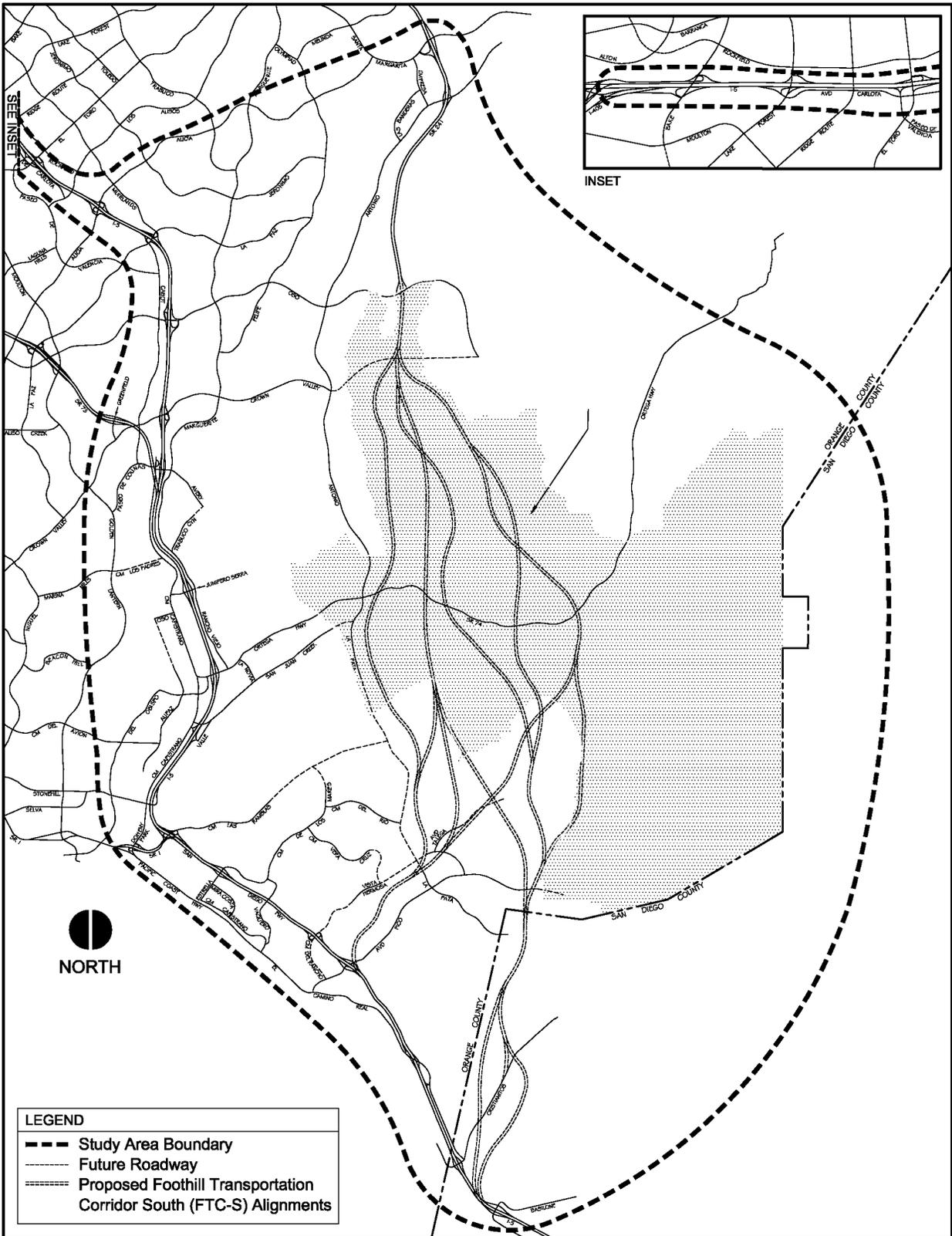
$$V/C (\text{Left}) = V/C (\text{Through})$$

If approach has only one left-turn lane (shared lane), then:

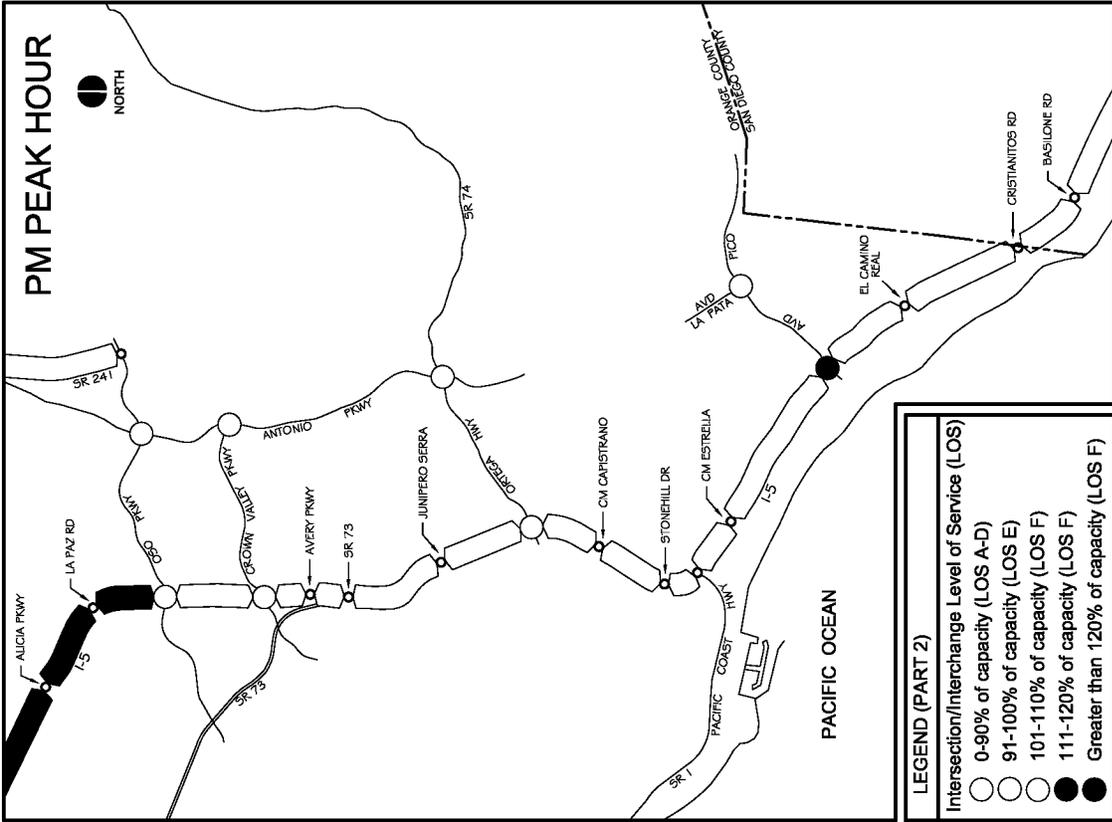
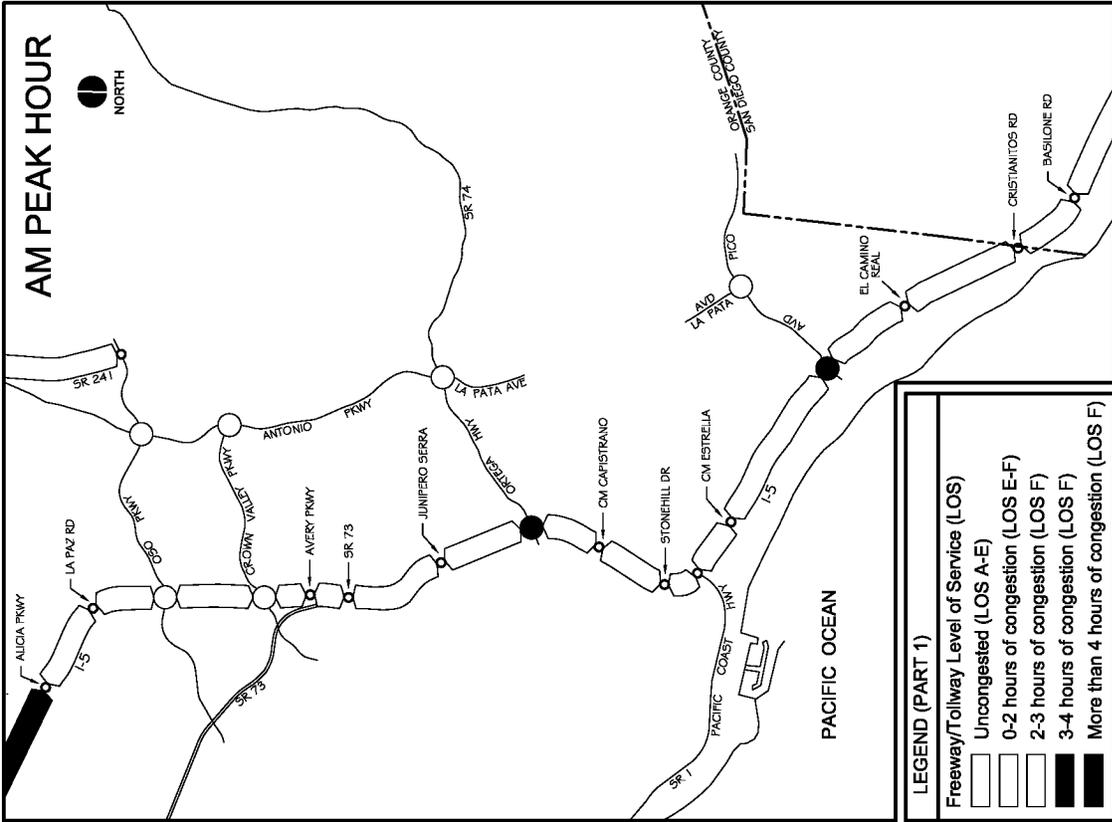
$$V/C \text{ (Left)} = \frac{\text{Left-Turn Volume}}{\text{Single Approach Lane Capacity}}$$

If this left-turn movement is determined to be a critical movement, the V/C (Left) value is posted in brackets on the ICU summary printout.

These same steps are carried out for shared through/right lanes. If full dedication of a shared through/right lane to the right-turn movement is warranted, the right-turn V/C value calculated in step three is checked against the RTOR and RTOG capacity. When an approach contains more than one shared lane (e.g., left/through and through/right), steps one and two listed above are carried out for the three turn movements combined. Step four is carried out if dedication is not warranted for either of the shared lanes. If dedication of one of the shared lanes is warranted to one movement or another, step three is carried out for the two movements involved, and then steps one through four are repeated for the two movements involved in the other shared lane.



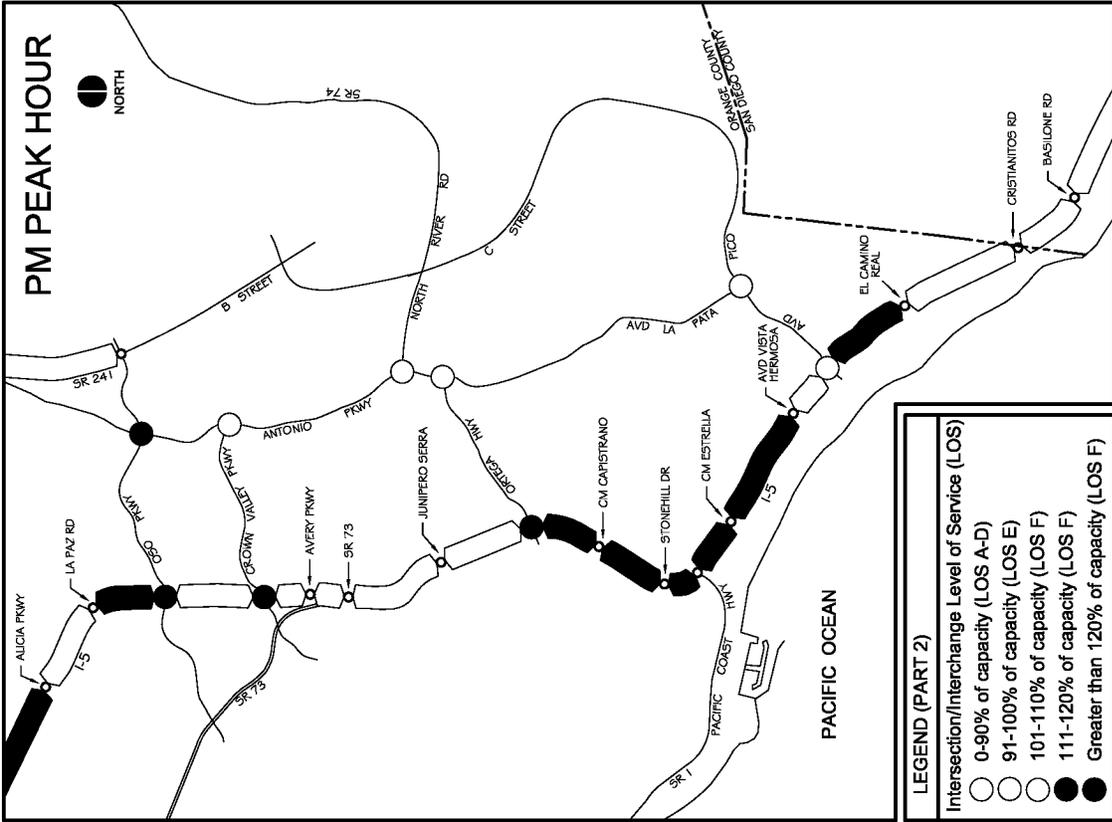
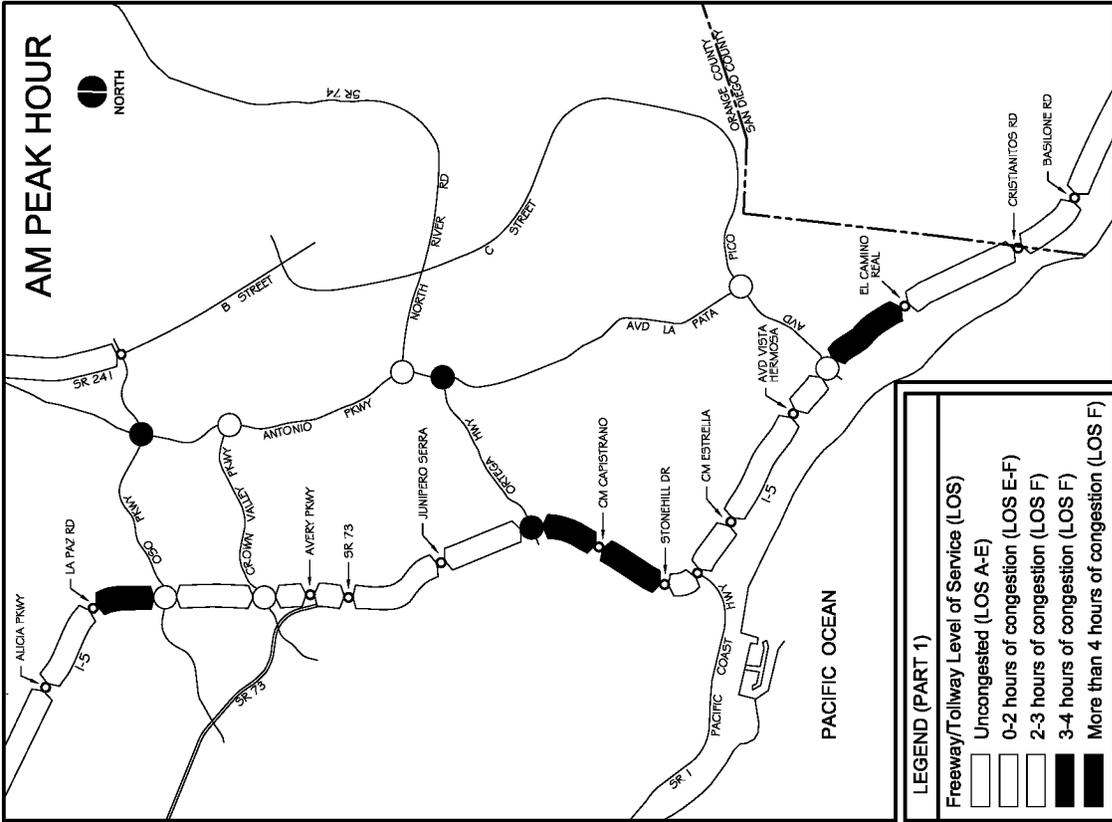
SOCTIP Traffic Analysis Study Area



Existing Weekday Peak Hour Traffic Conditions

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

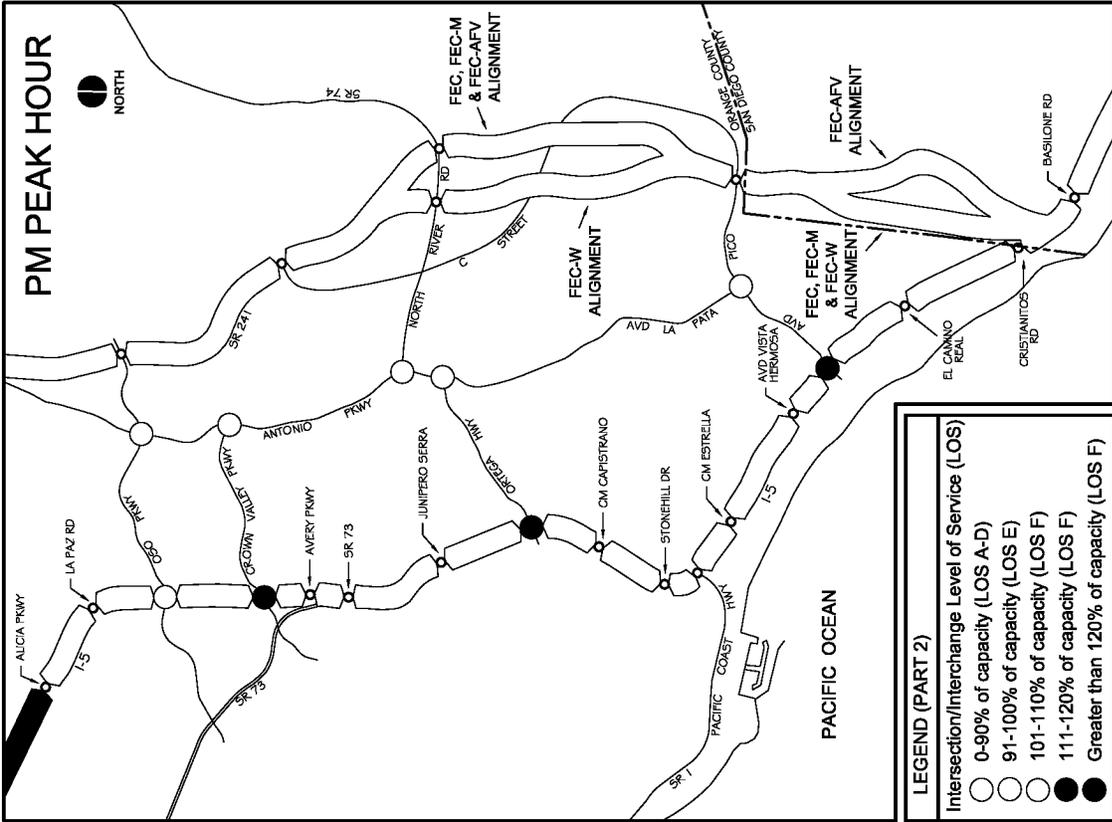
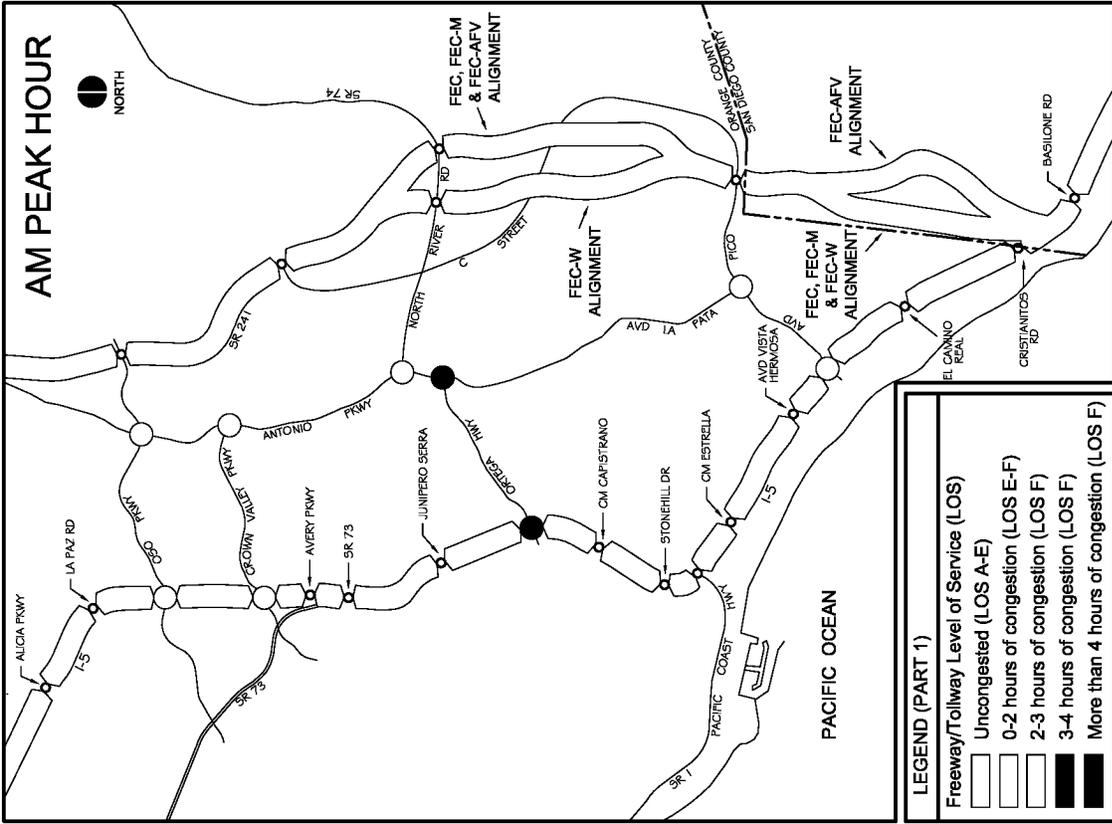
Figure ES-2



**2025 Weekday Peak Hour Traffic Conditions - No Action Alternative
(Buildout Circulation System with Proposed RMV Plan)**

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

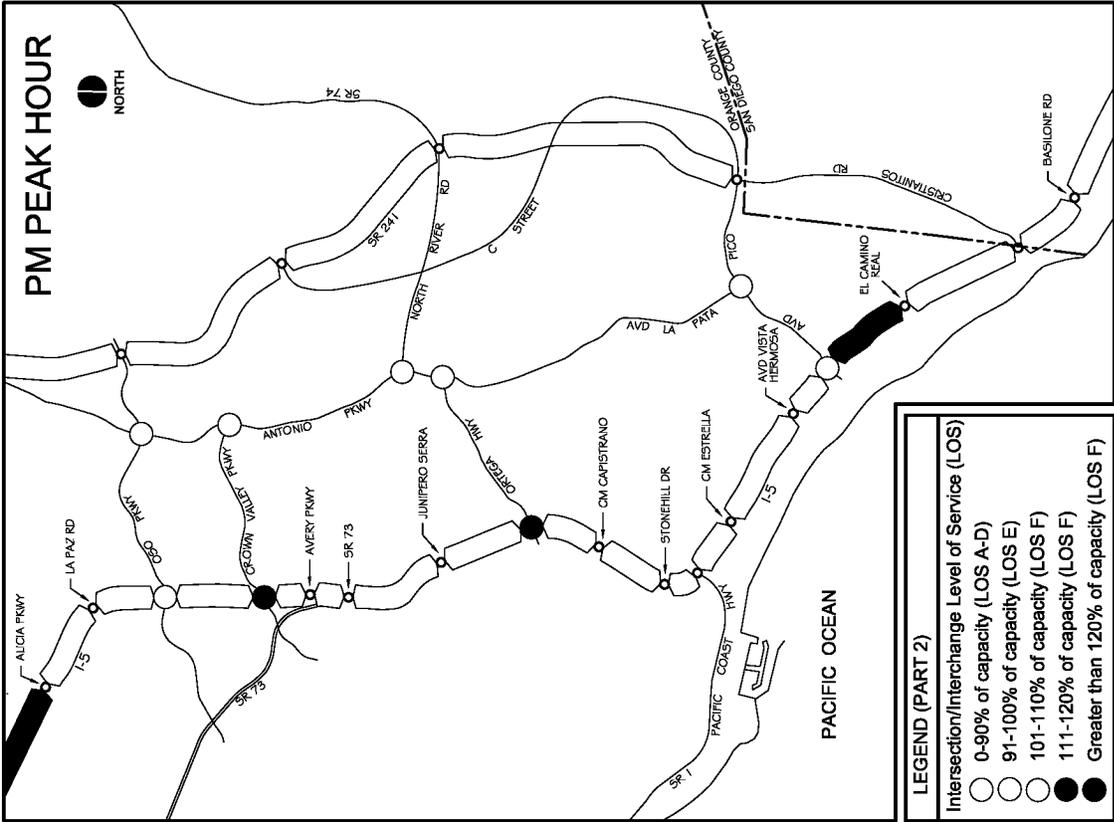
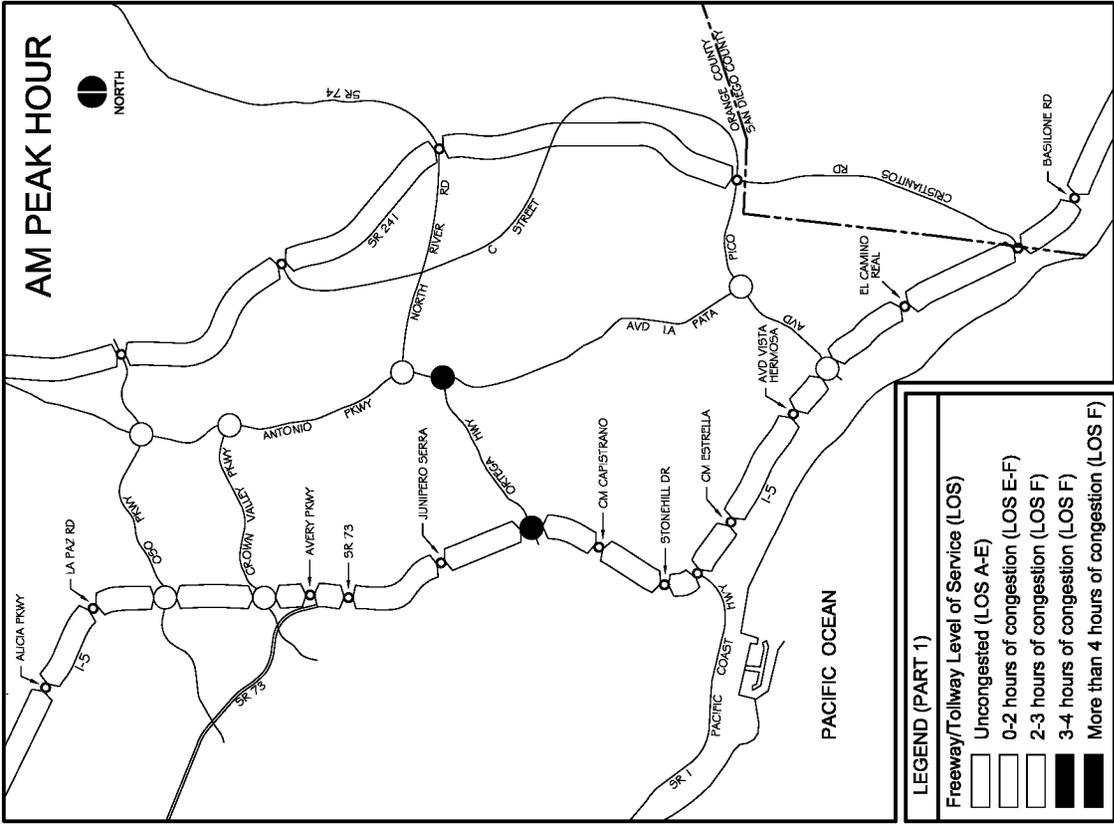
Figure ES-3



2025 Weekday Peak Hour Traffic Conditions - FEC, FEC-M, FEC-W and FEC-AFV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

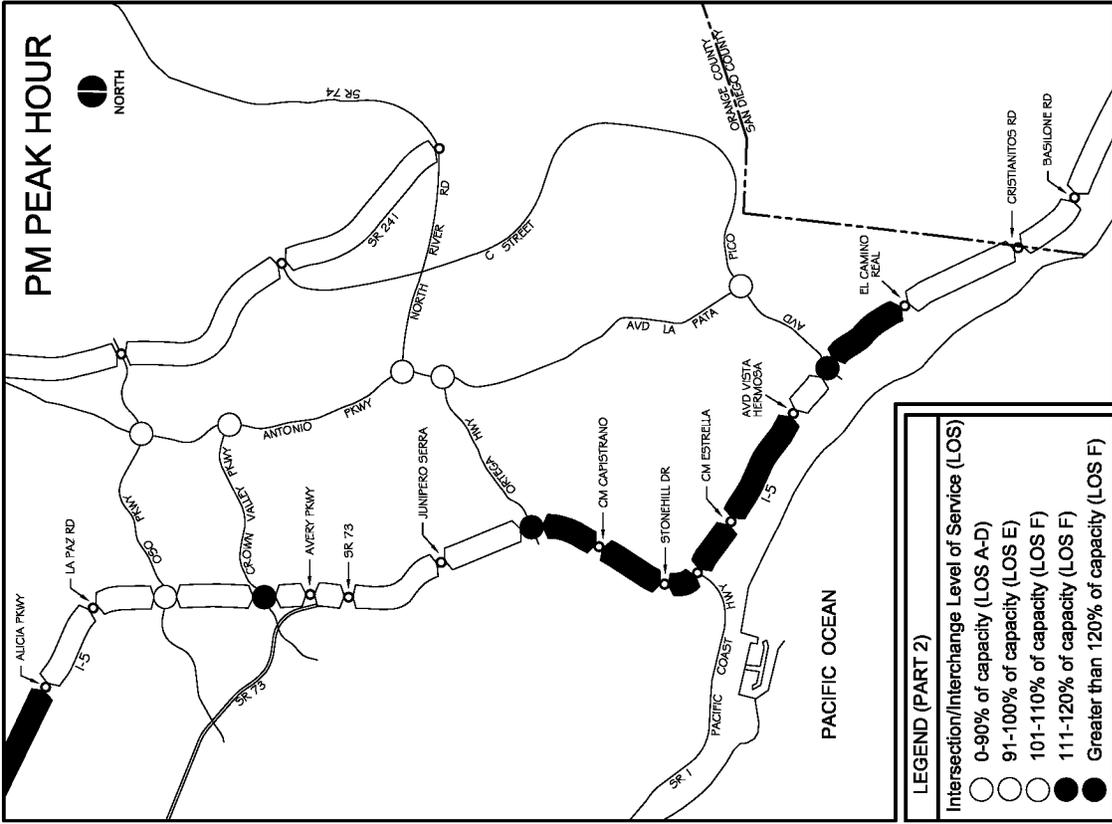
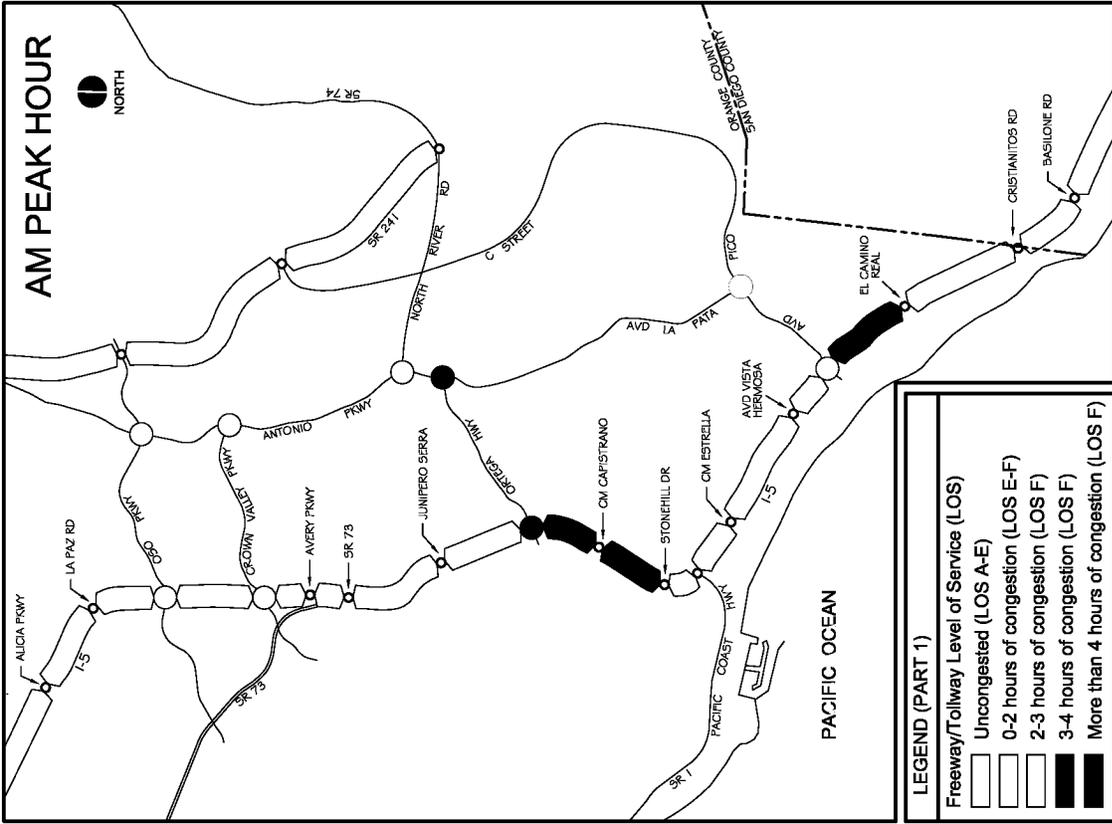
Figure ES-4



2025 Weekday Peak Hour Traffic Conditions - FEC-CV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

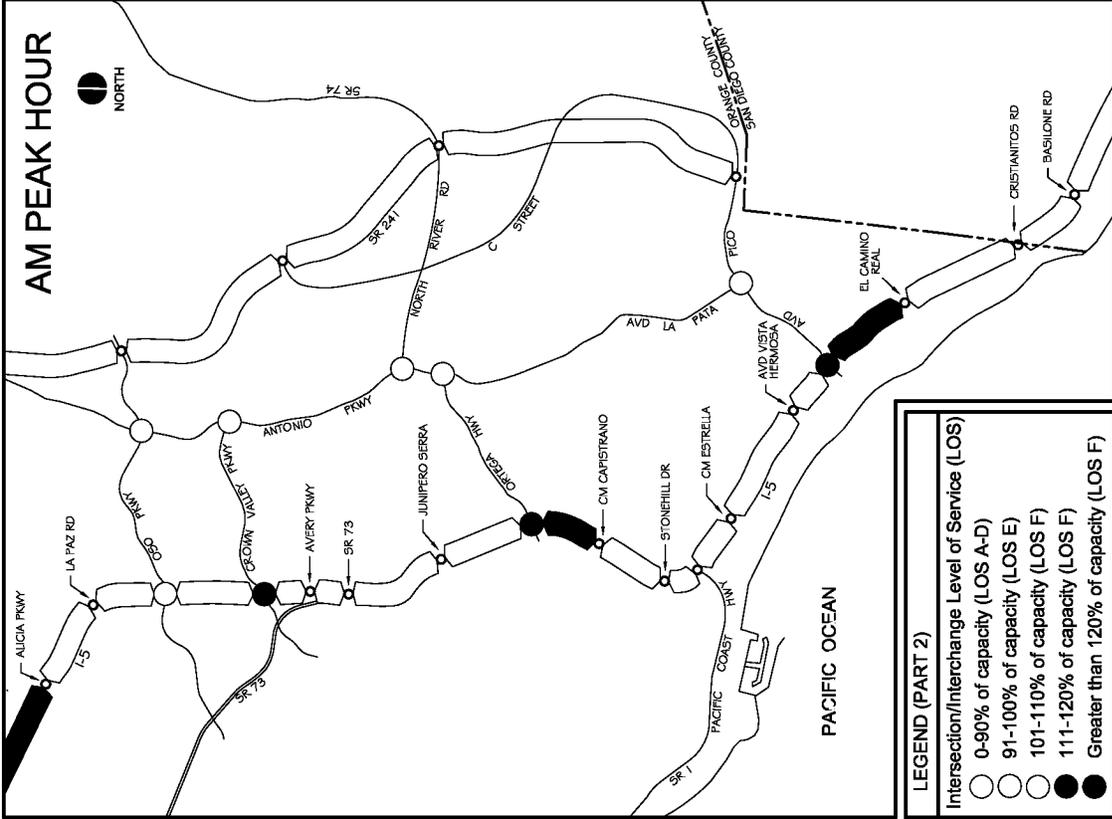
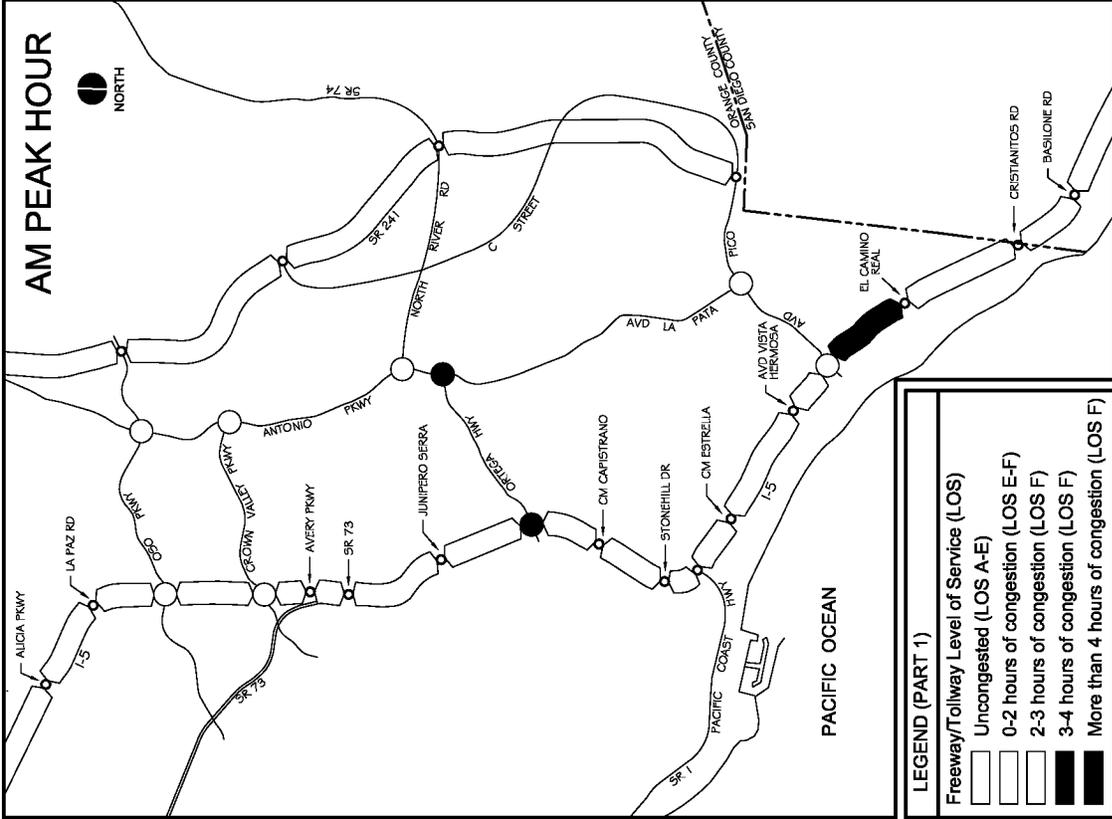
Figure ES-6



2025 Weekday Peak Hour Traffic Conditions - FEC-OHV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

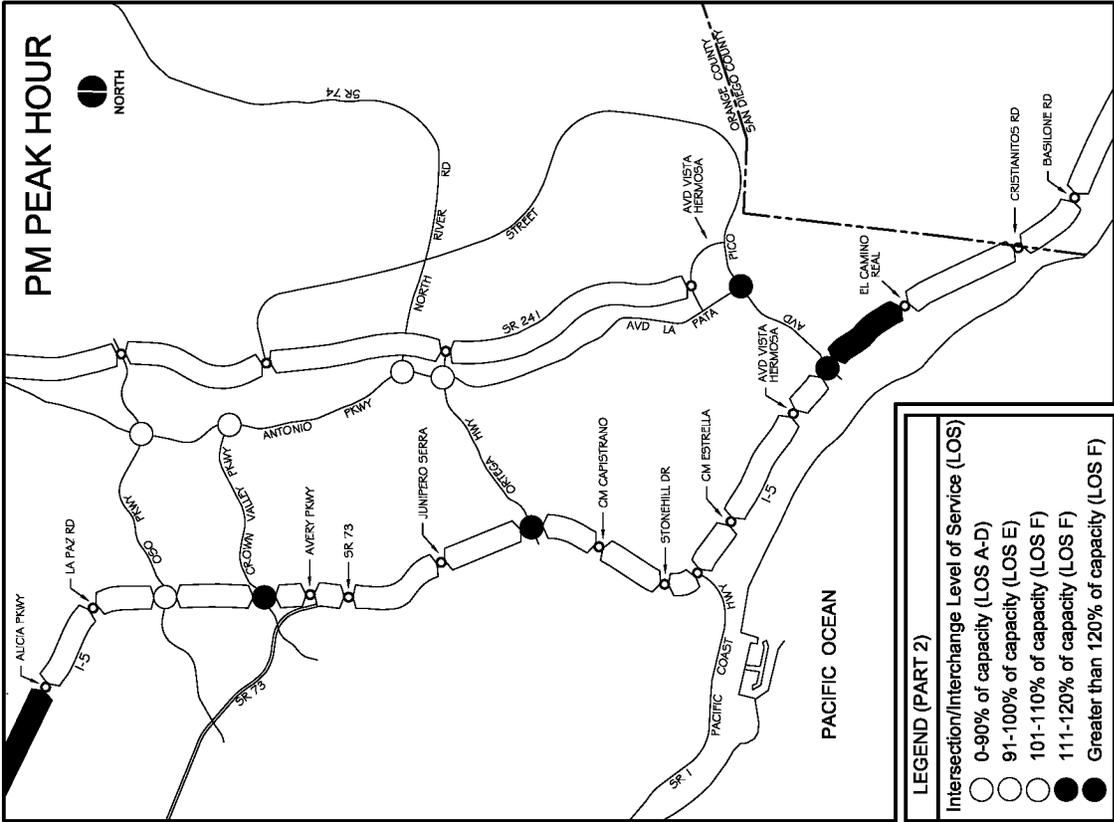
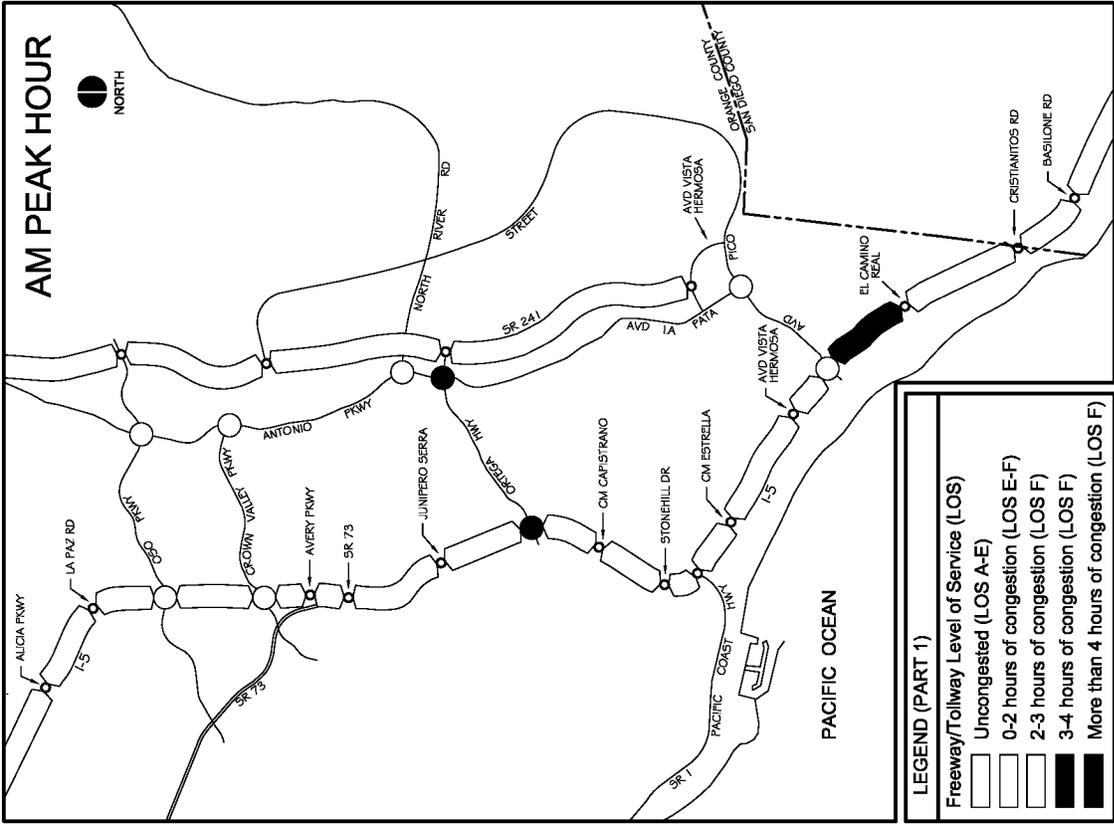
Figure ES-7



2025 Weekday Peak Hour Traffic Conditions - FEC-APV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

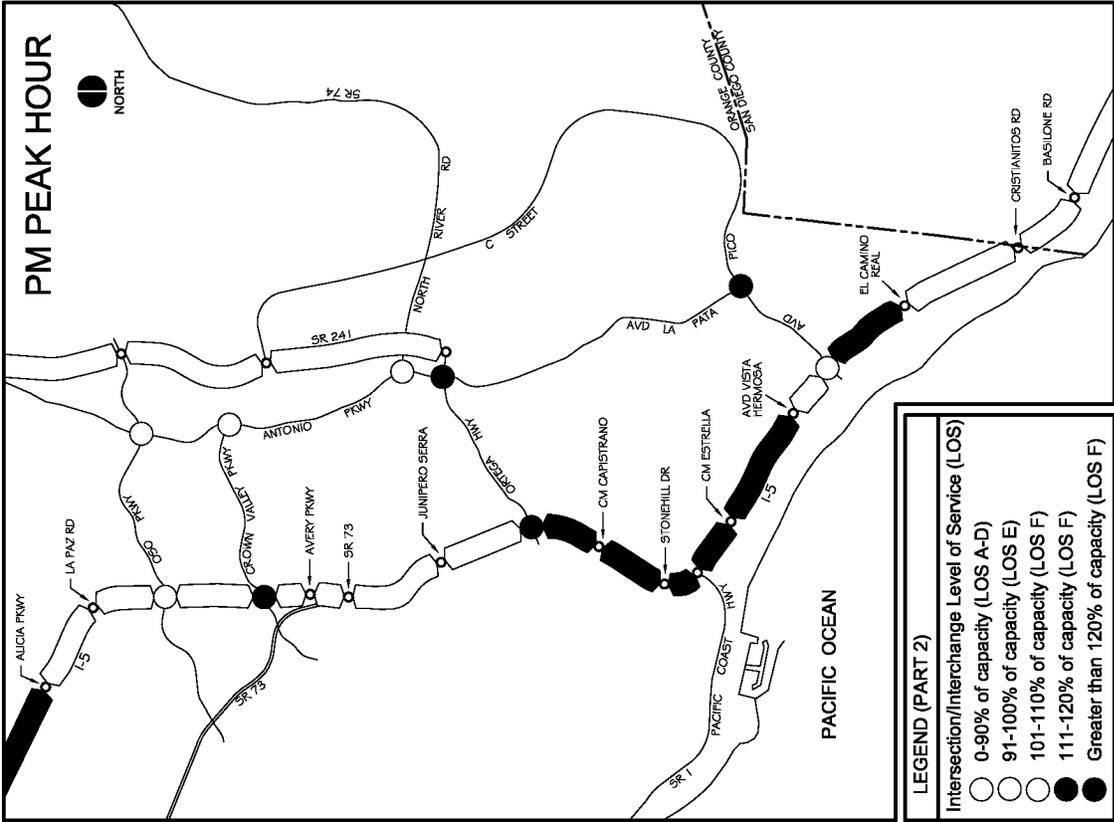
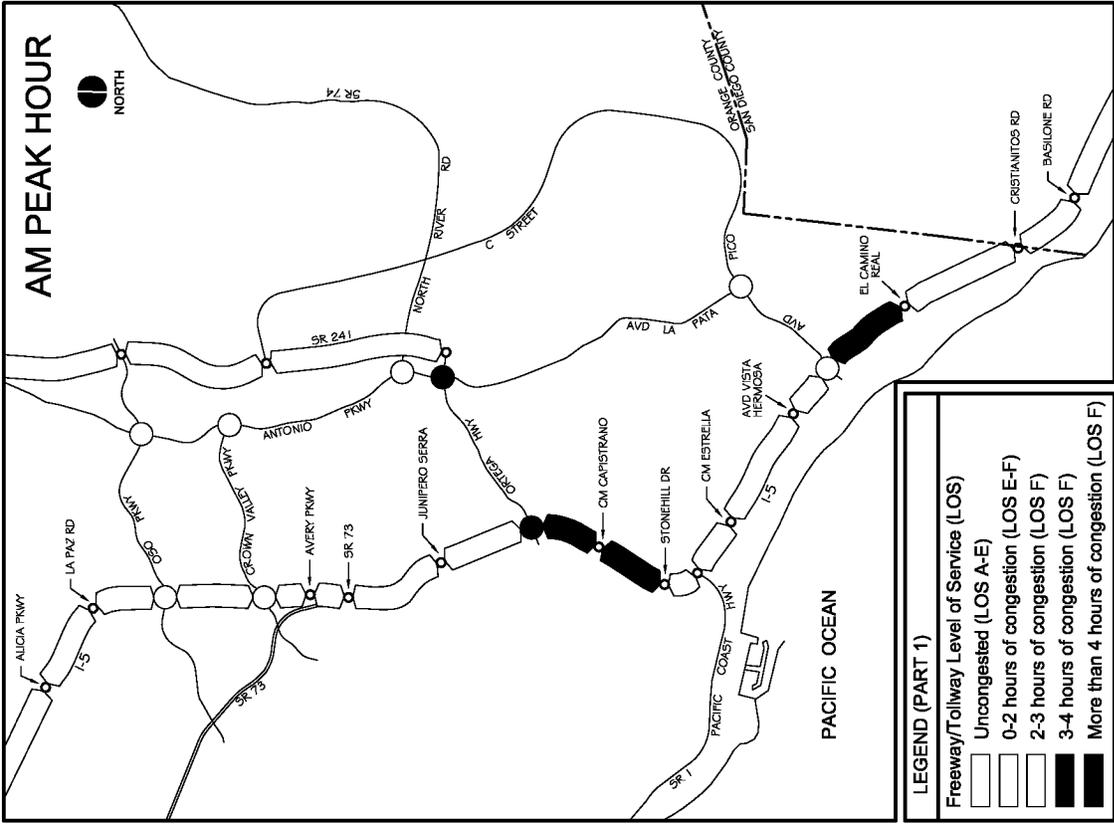
Figure ES-8



2025 Weekday Peak Hour Traffic Conditions - CC-ALPV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

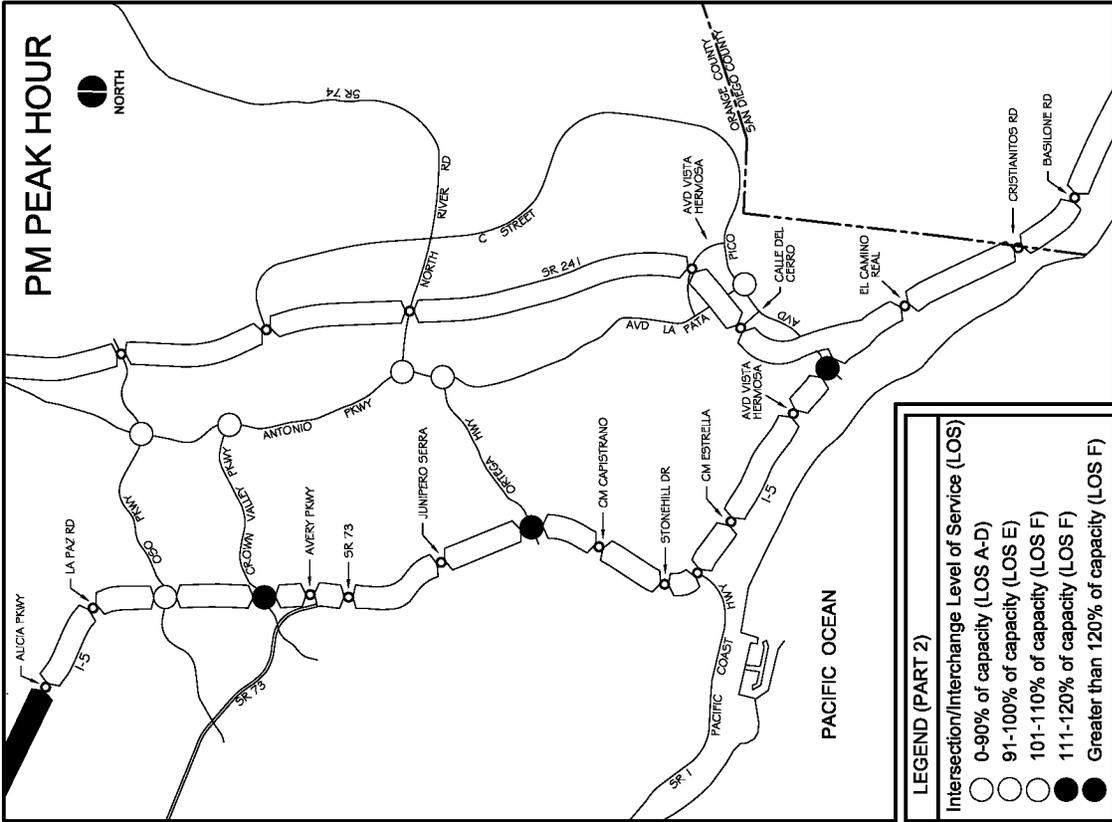
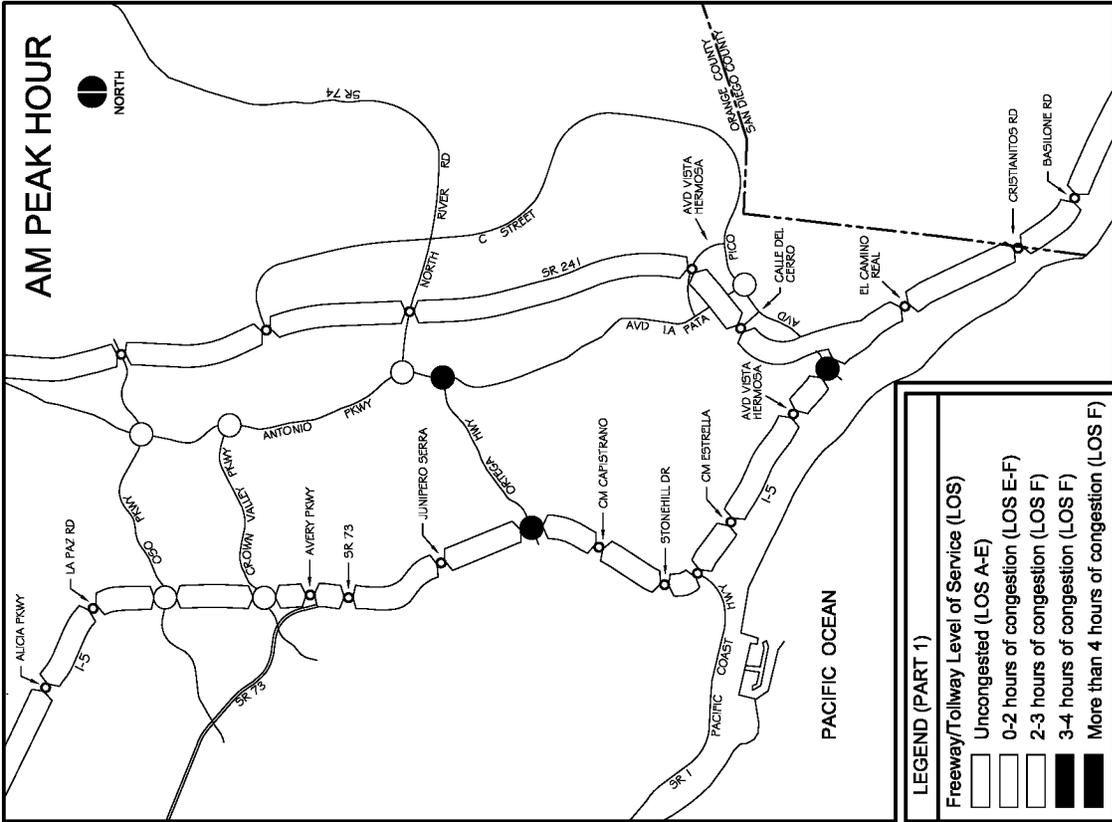
Figure ES-10



2025 Weekday Peak Hour Traffic Conditions - CC-OHV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

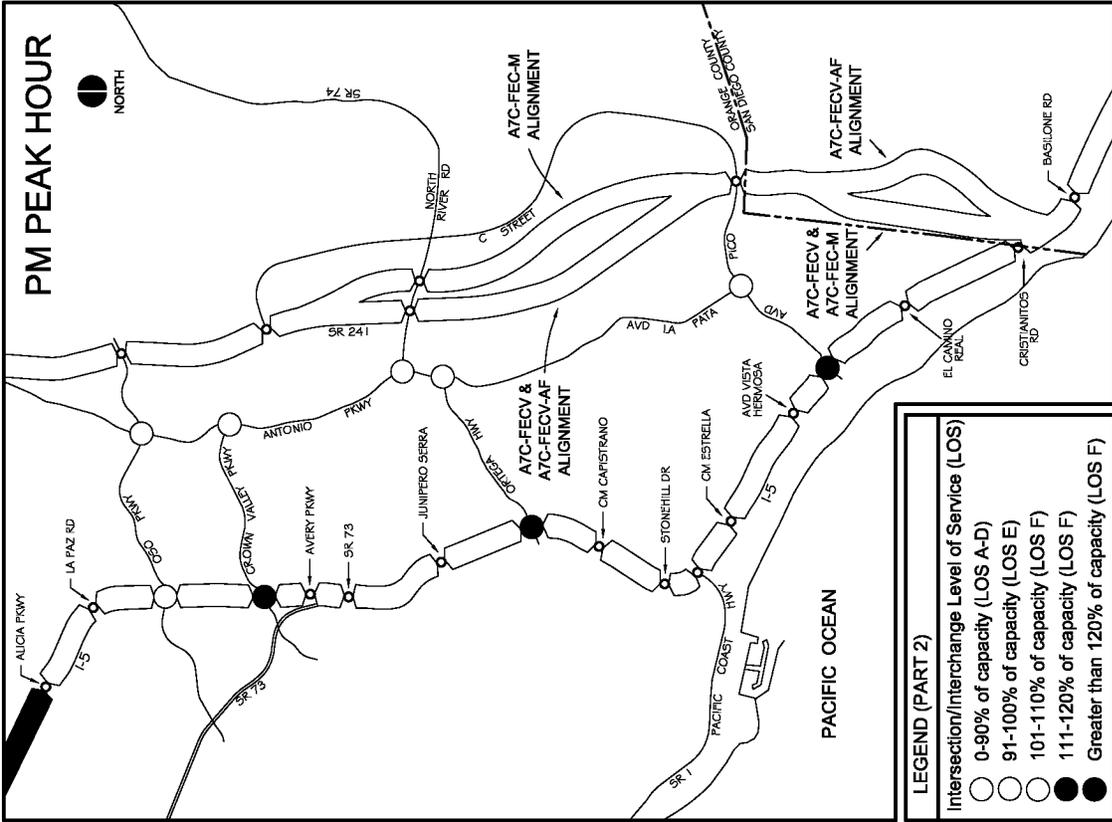
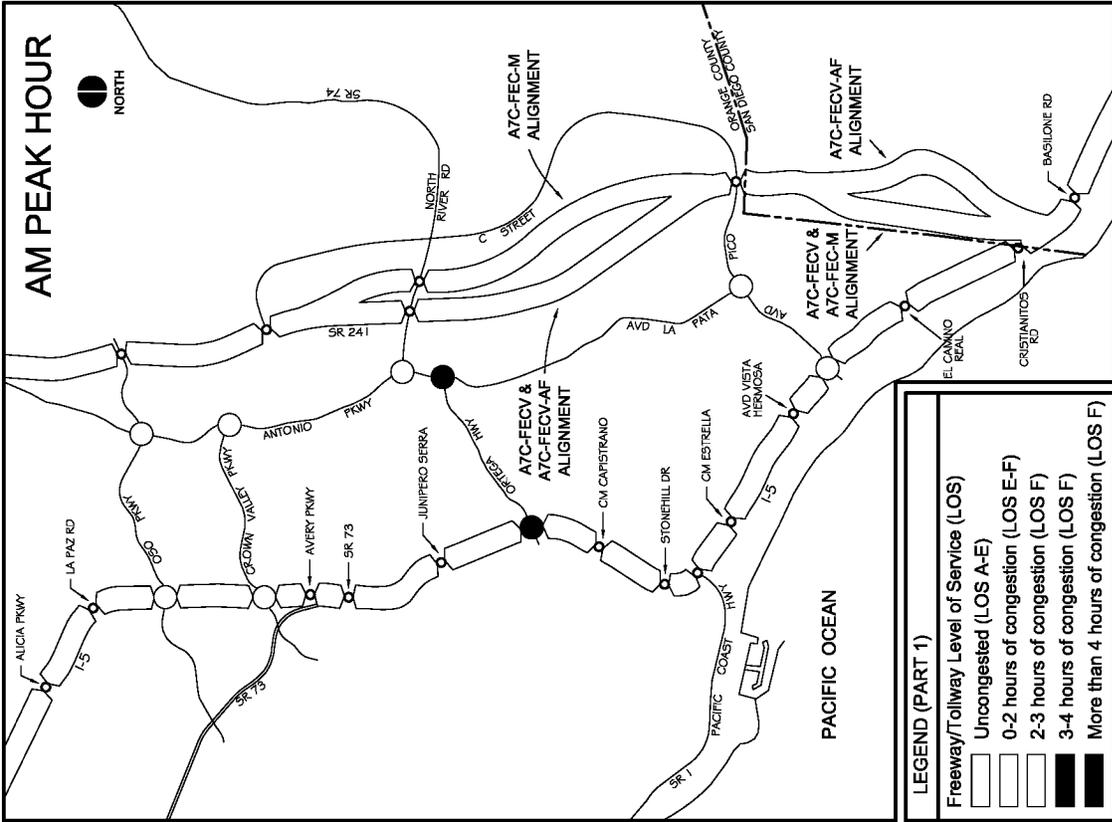
Figure ES-11



2025 Weekday Peak Hour Traffic Conditions - A7C and A7C-7SV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

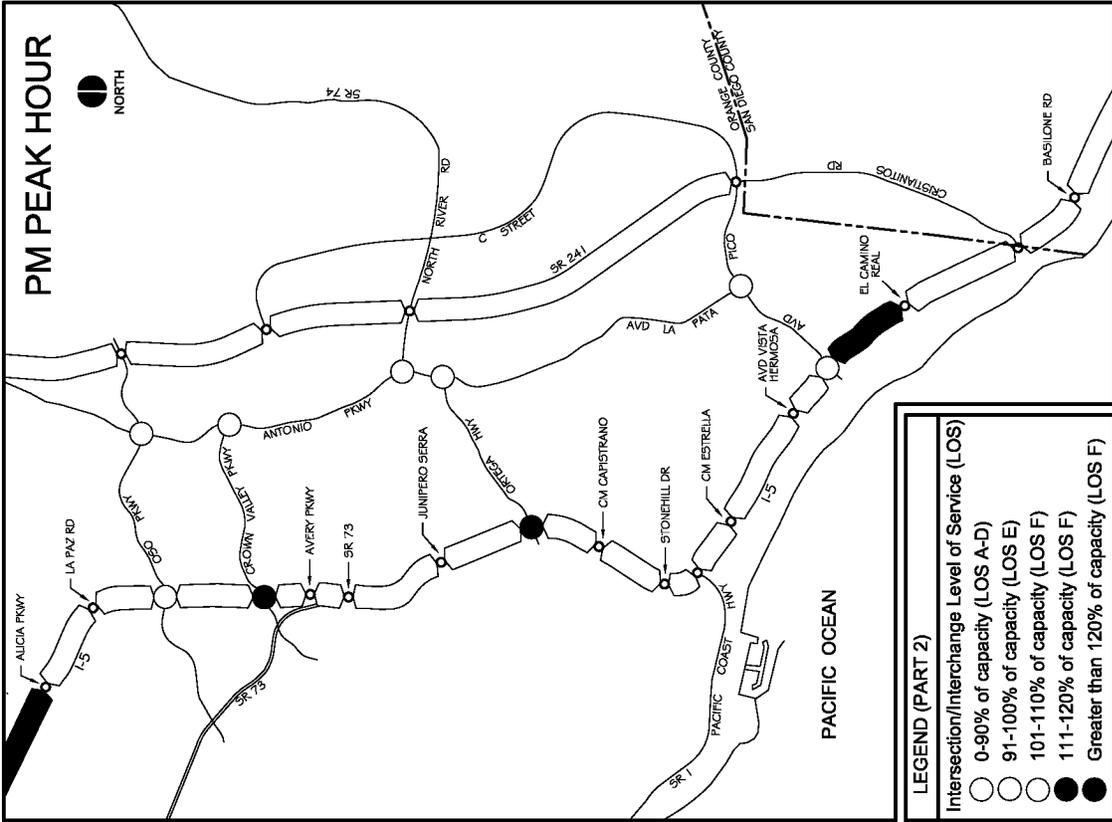
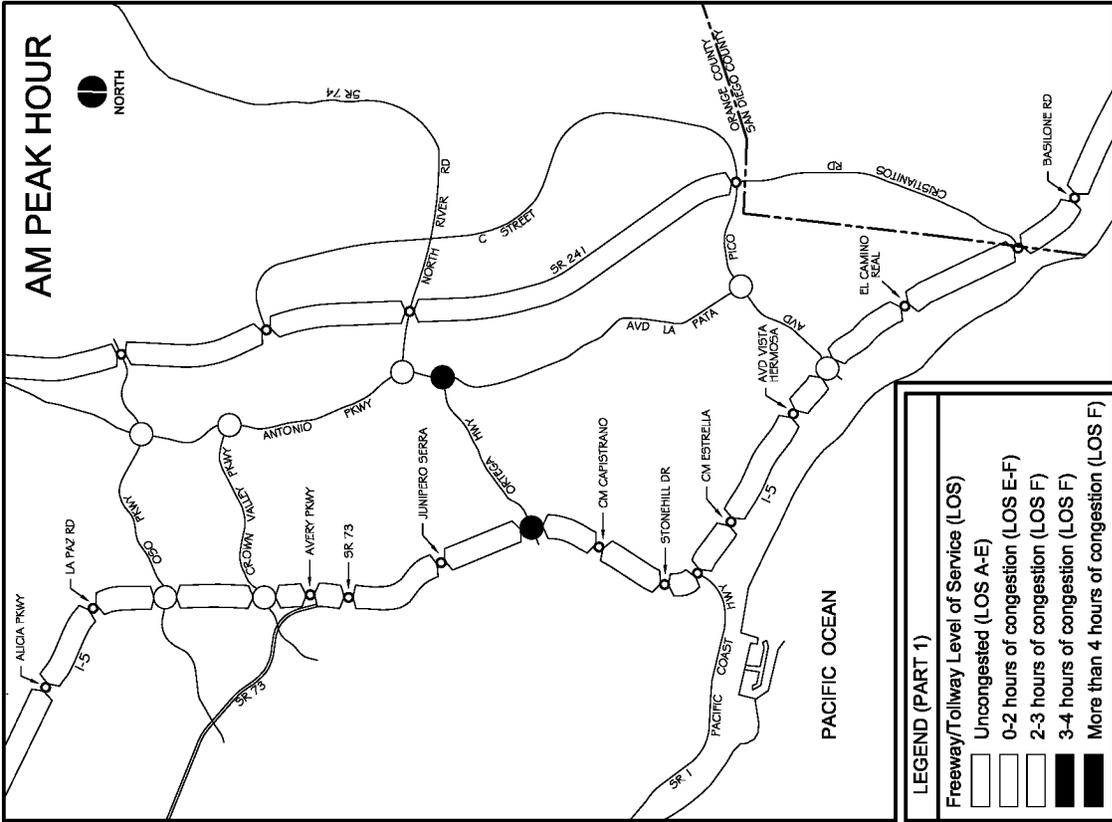
Figure ES-12



2025 Weekday Peak Hour Traffic Conditions - A7C-FECV, A7C-FECV-M and A7C-FECV-AF Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

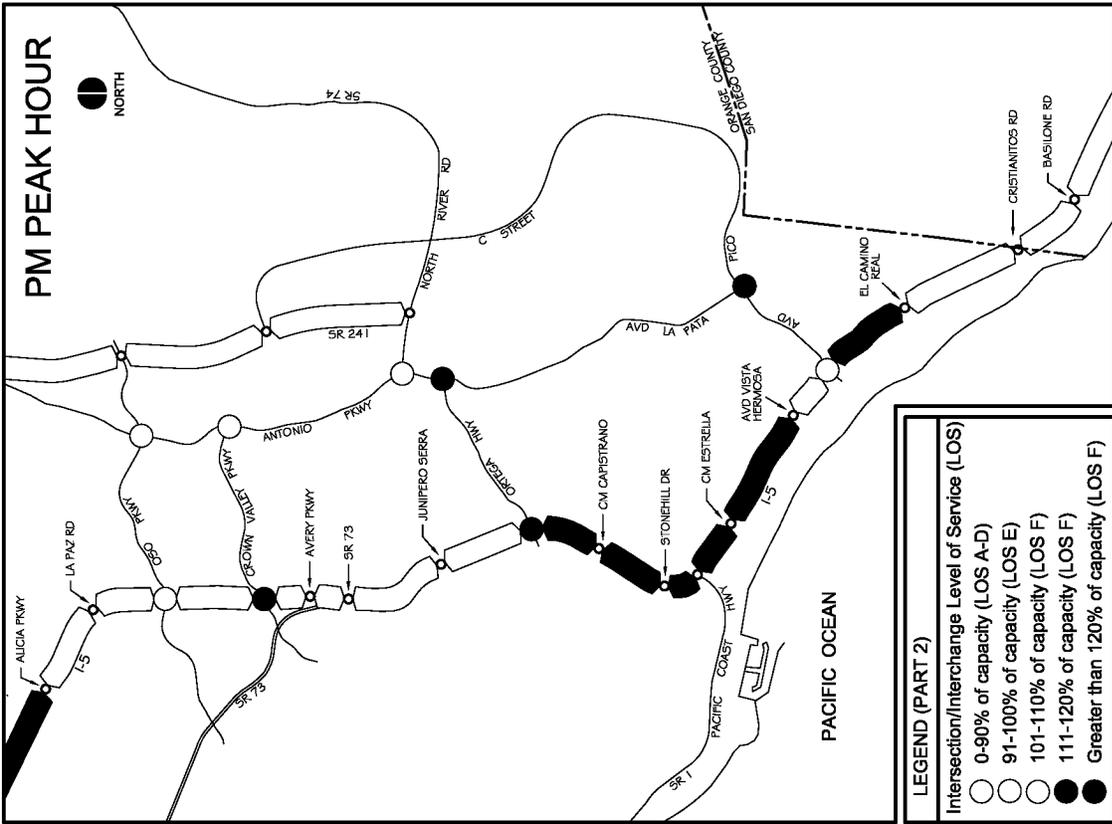
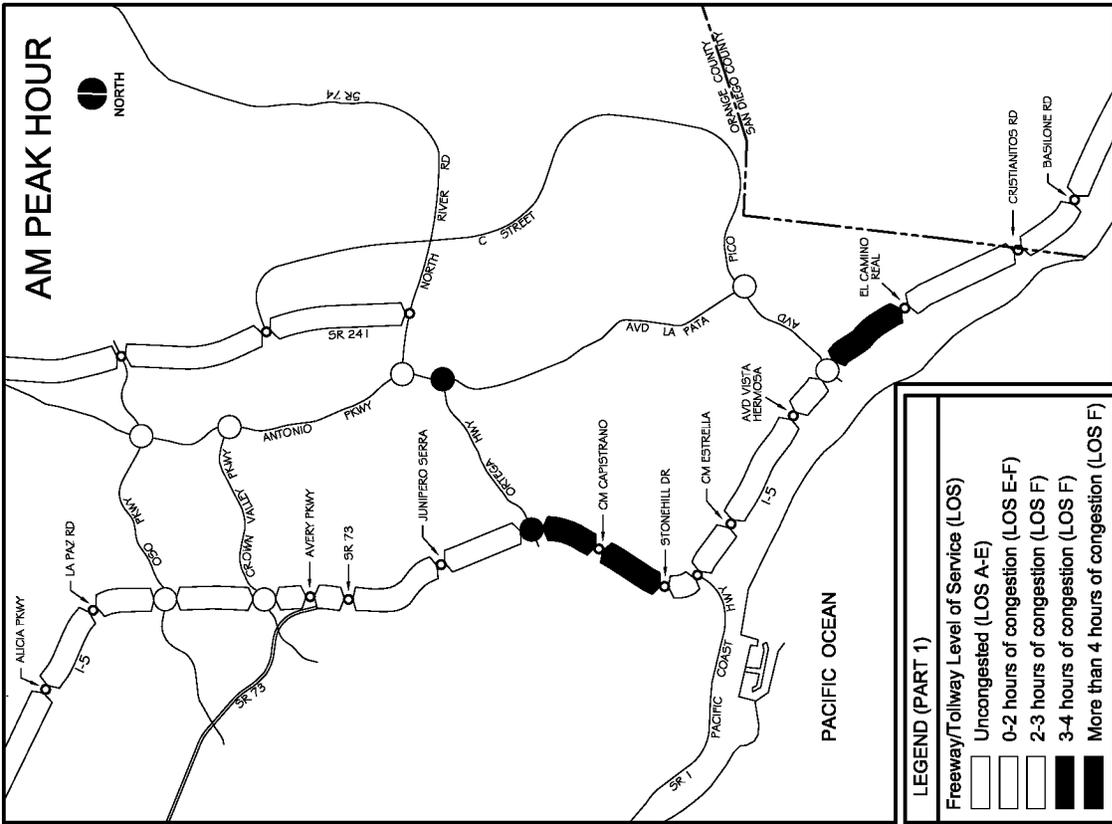
Figure ES-13



2025 Weekday Peak Hour Traffic Conditions - A7C-FECV-C Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

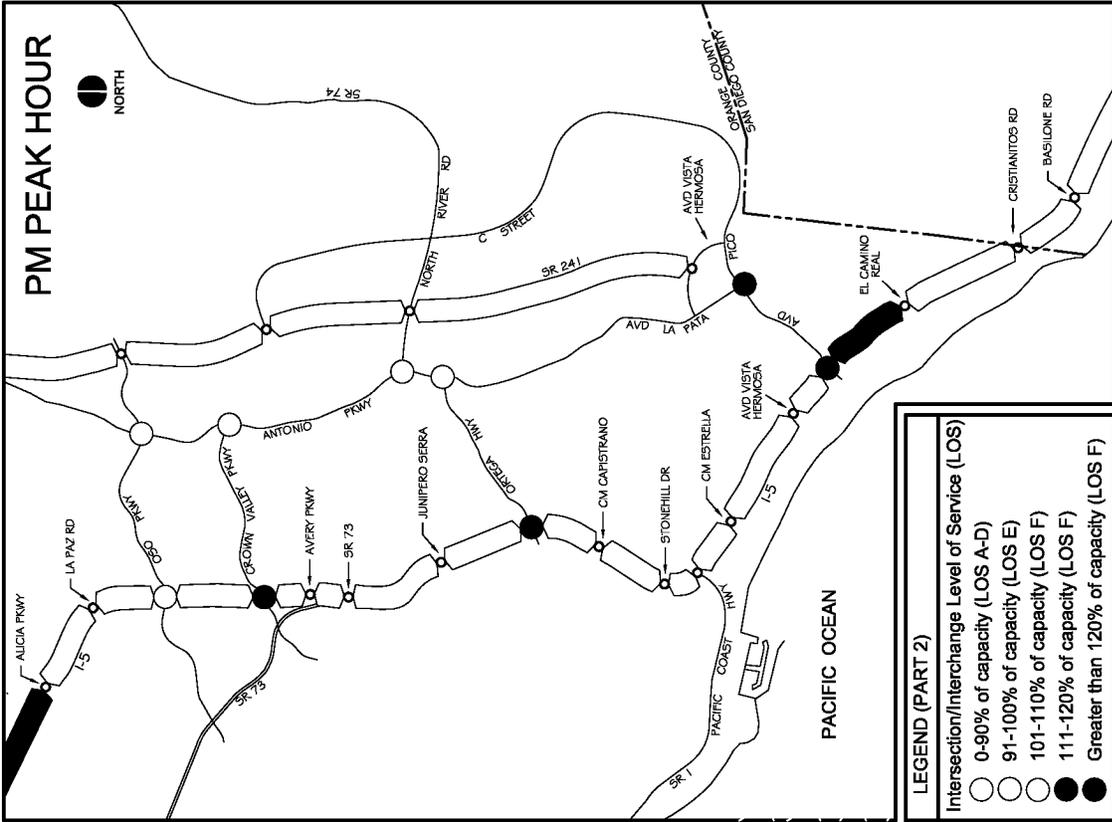
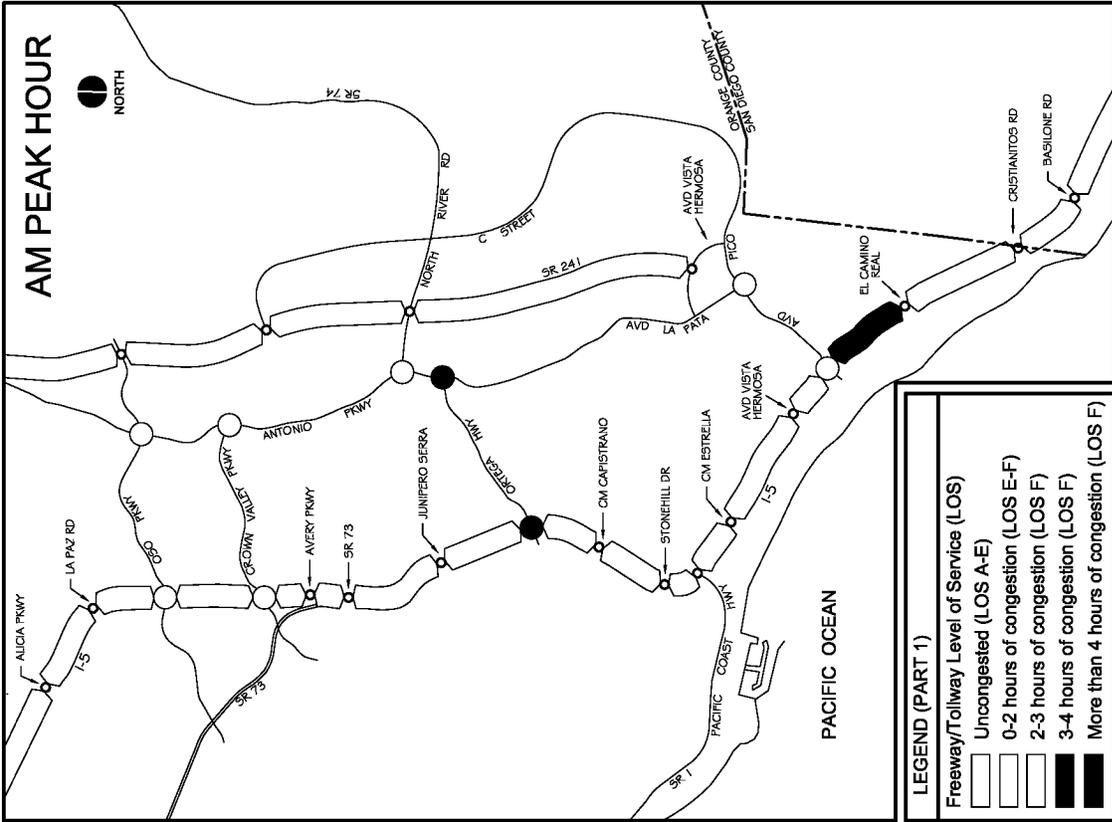
Figure ES-14



2025 Weekday Peak Hour Traffic Conditions - A7C-OHV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

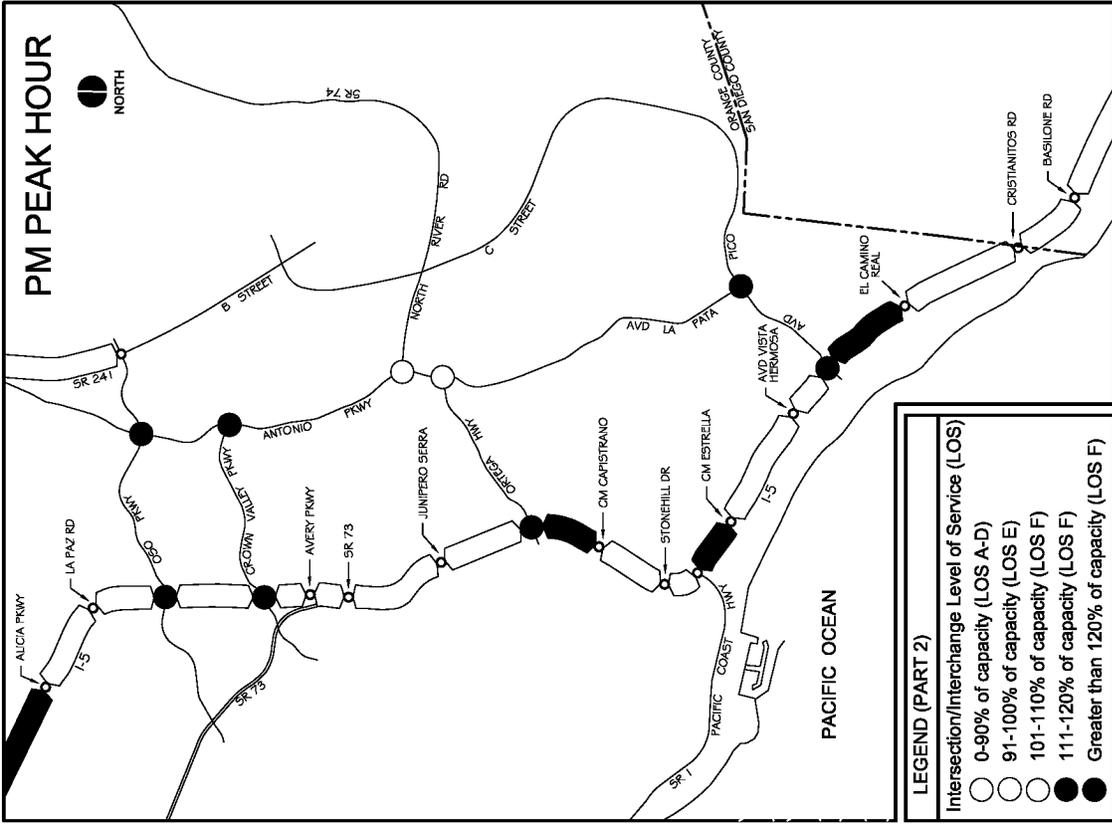
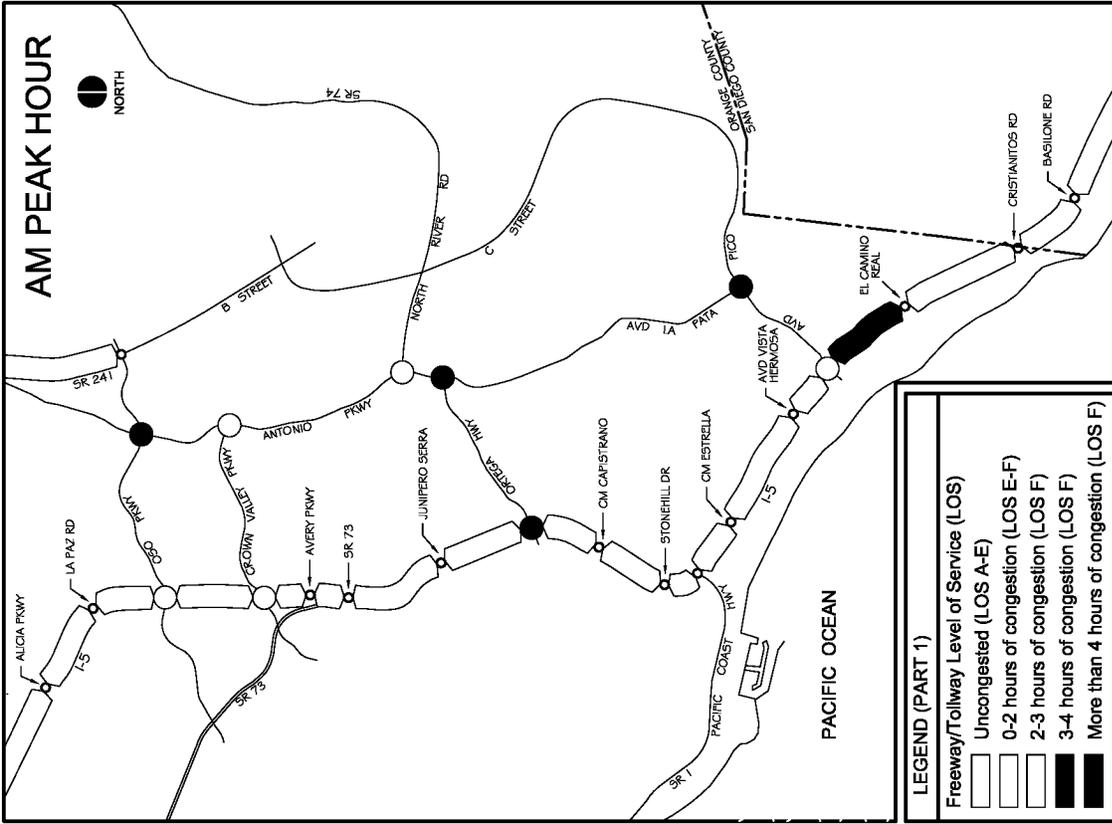
Figure ES-15



2025 Weekday Peak Hour Traffic Conditions - A7C-ALPV Initial and Ultimate Alternatives (Buildout Circulation System with Proposed RMV Plan)

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

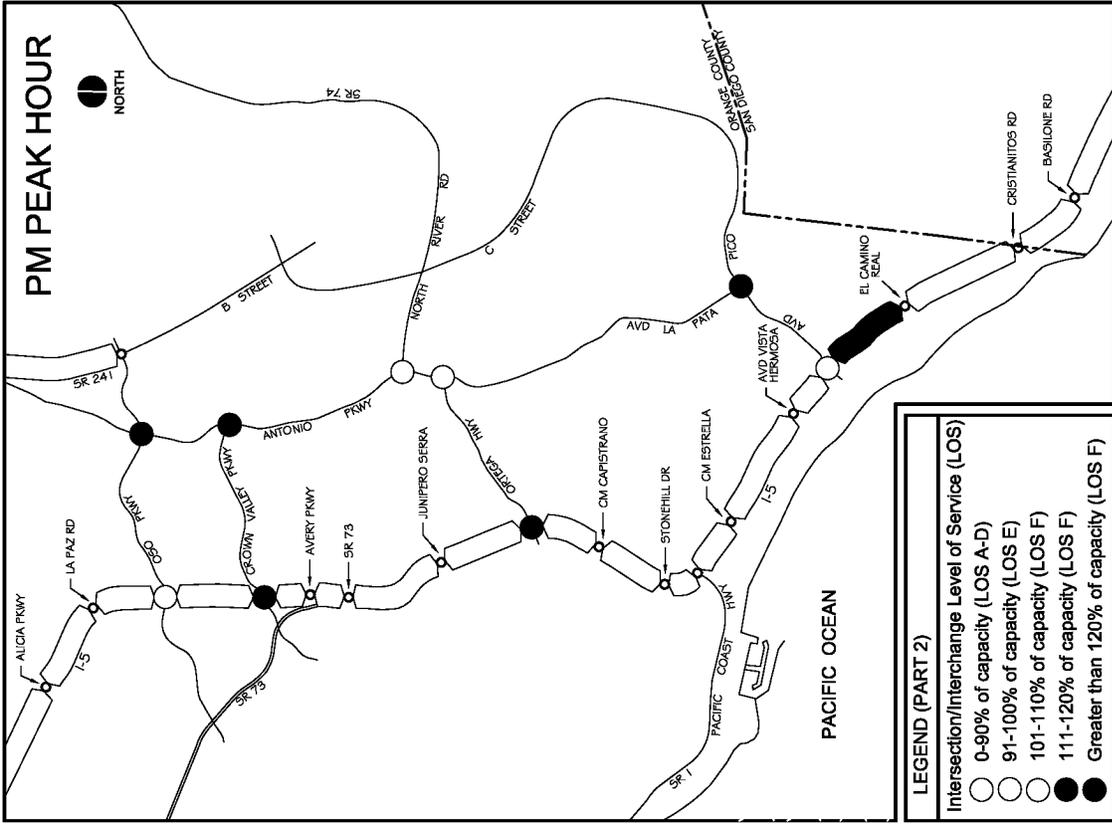
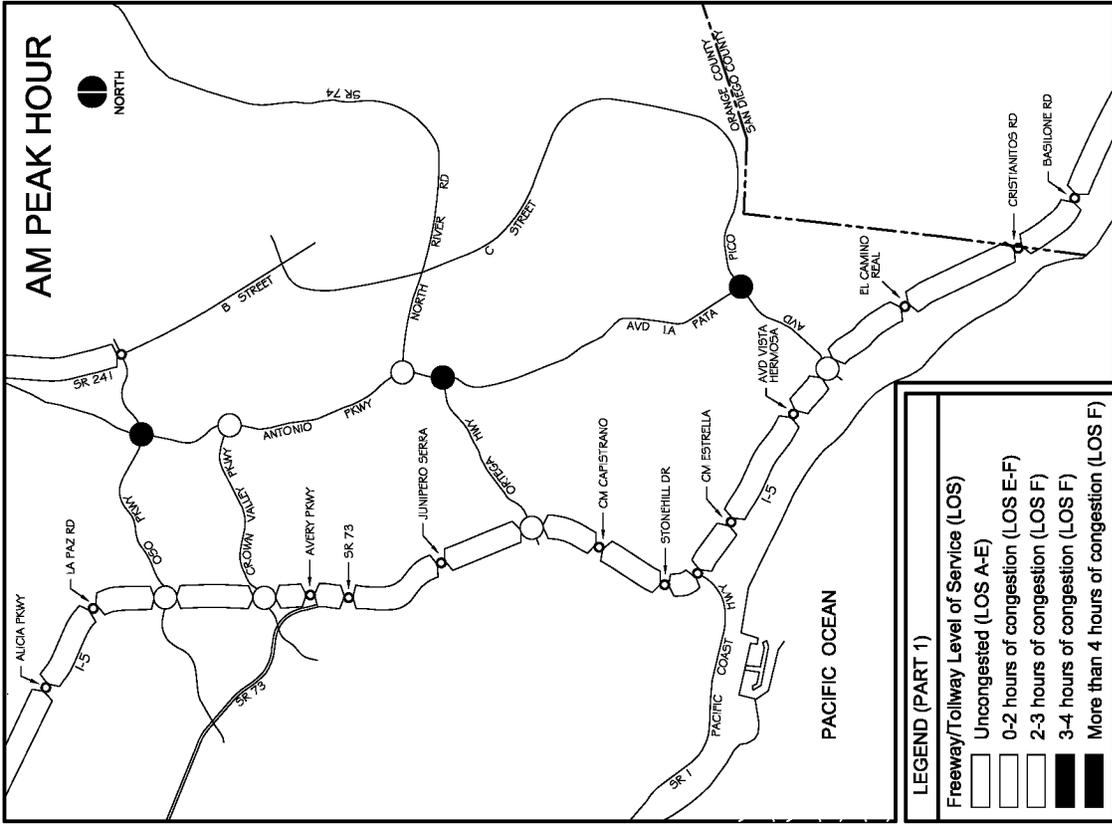
Figure ES-16



**2025 Weekday Peak Hour Traffic Conditions - AIO Alternative
(Buildout Circulation System with Proposed RMV Plan)**

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

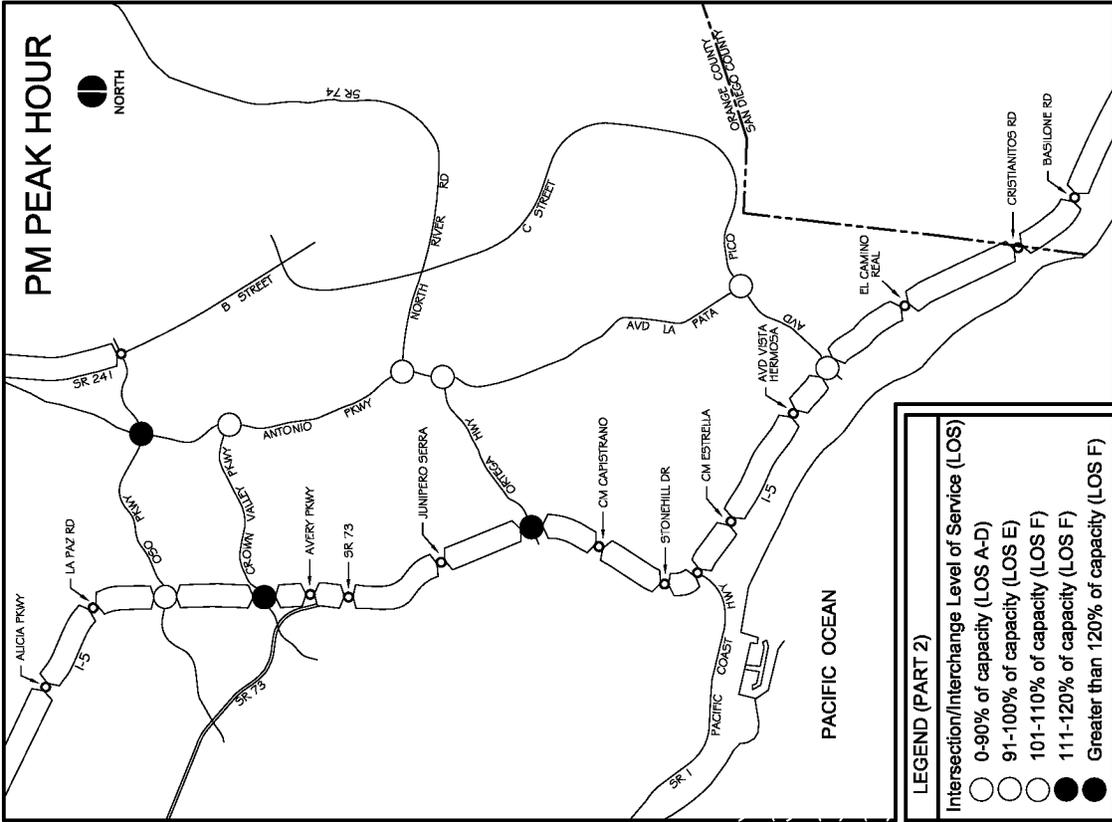
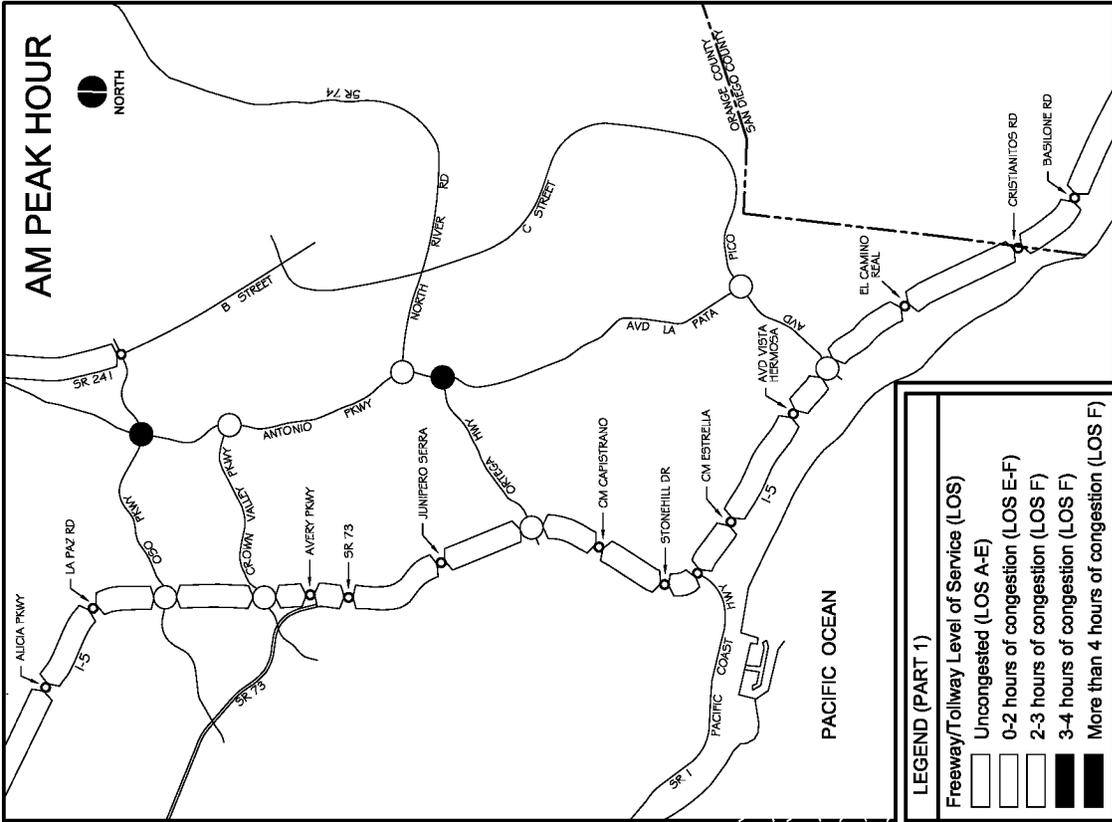
Figure ES-17



**2025 Weekday Peak Hour Traffic Conditions - AIP Alternative
(Buildout Circulation System with Proposed RMV Plan)**

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

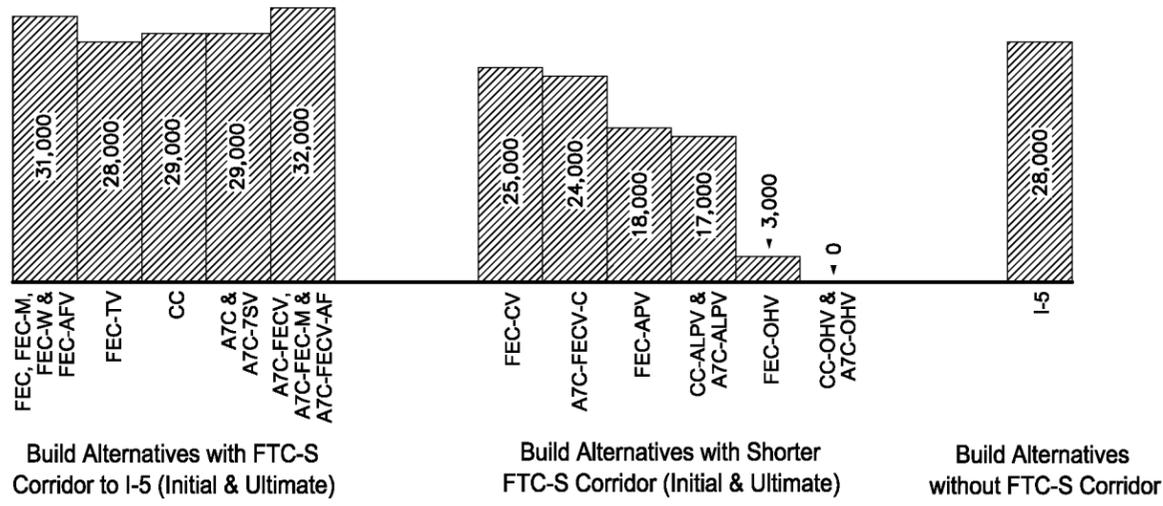
Figure ES-18



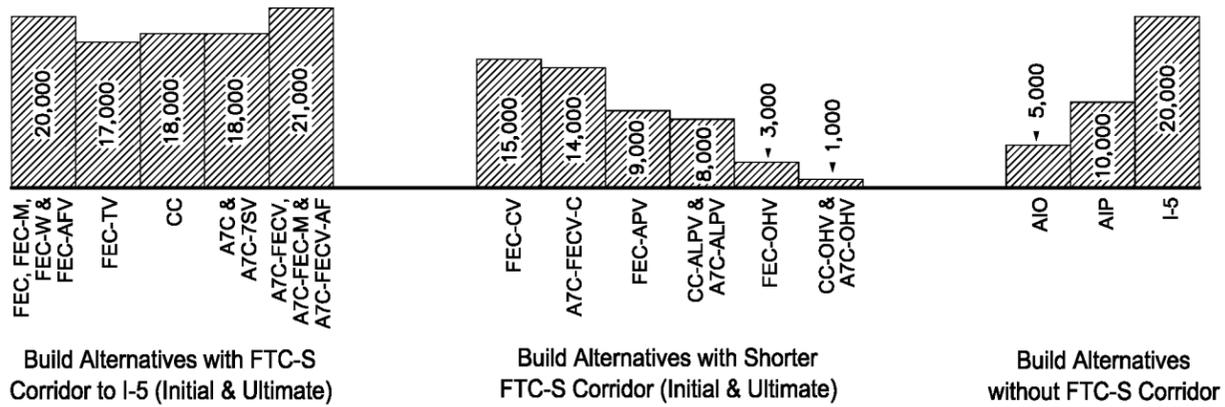
**2025 Weekday Peak Hour Traffic Conditions - I-5 Alternative
(Buildout Circulation System with Proposed RMV Plan)**

SOCTIP EIS/SEIR
Traffic and Circulation Technical Report

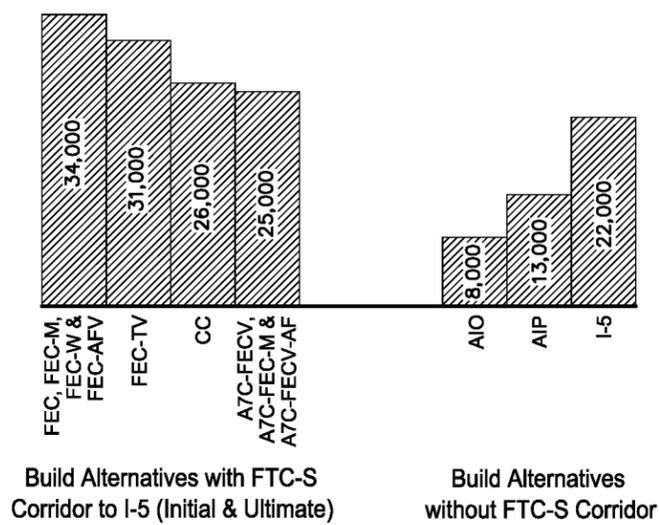
Figure ES-19



2025 Scenario 1

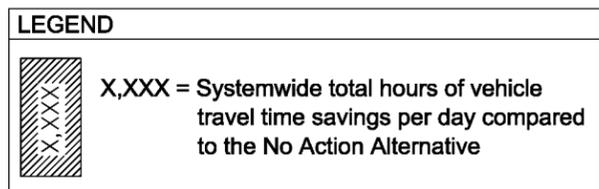


2025 Scenario 3

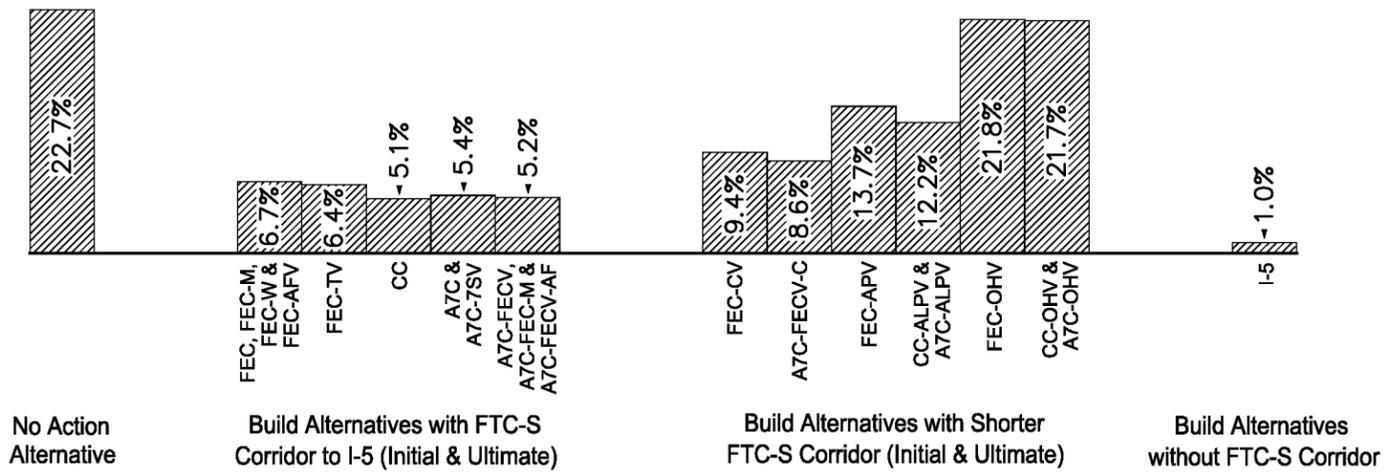


2025 Scenario 4

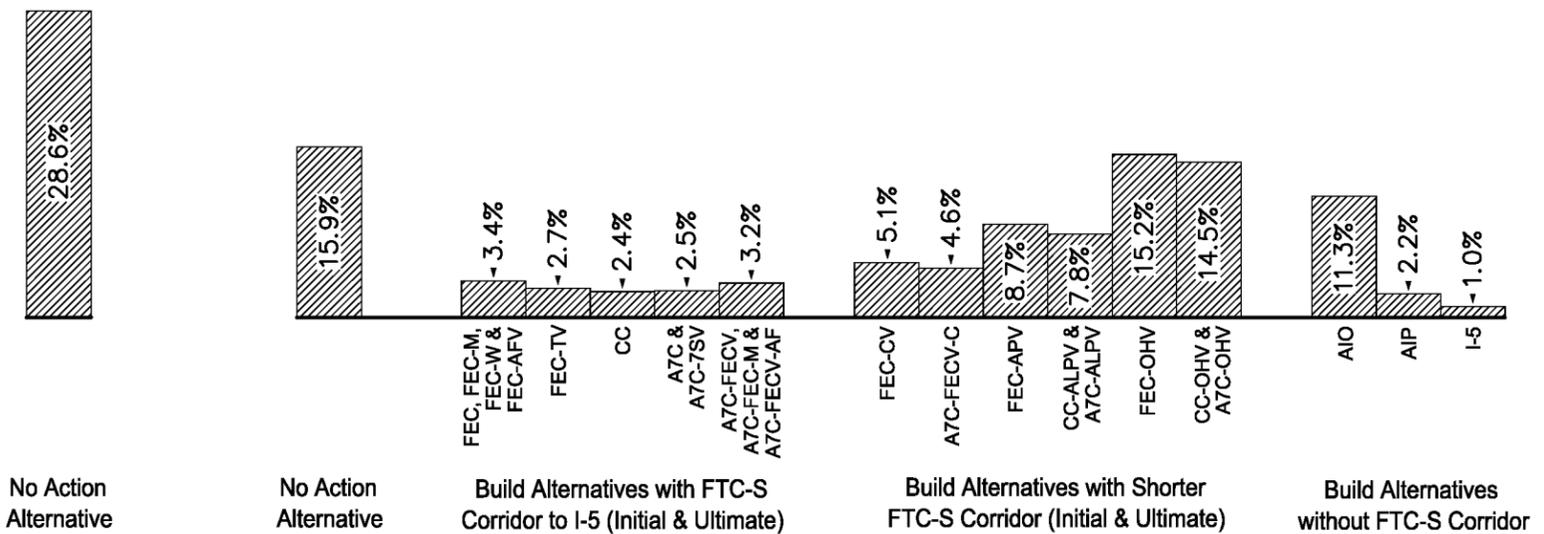
Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
 Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
 Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.



Summary of Build Alternative Systemwide Travel Time Savings

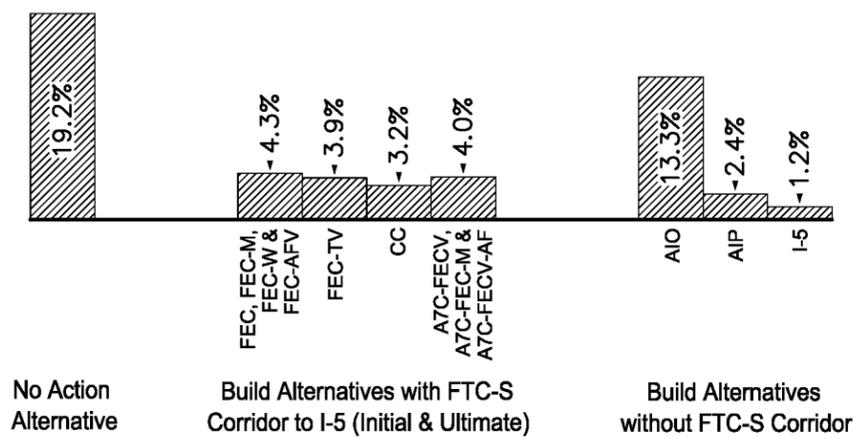


2025 Scenario 1



2025 Scenario 2

2025 Scenario 3



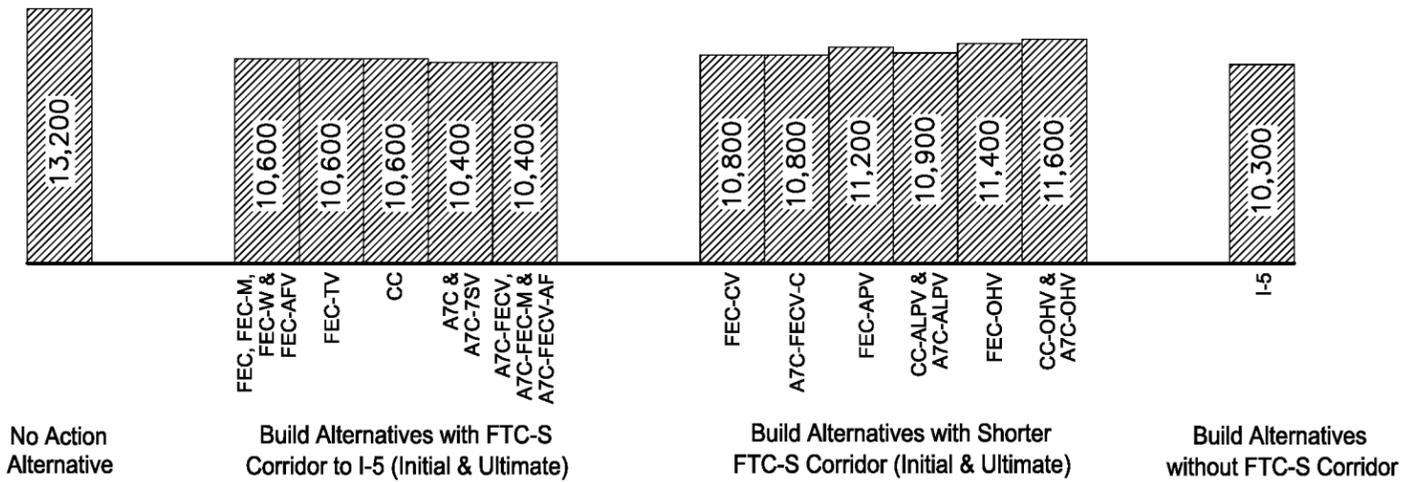
2025 Scenario 4

LEGEND

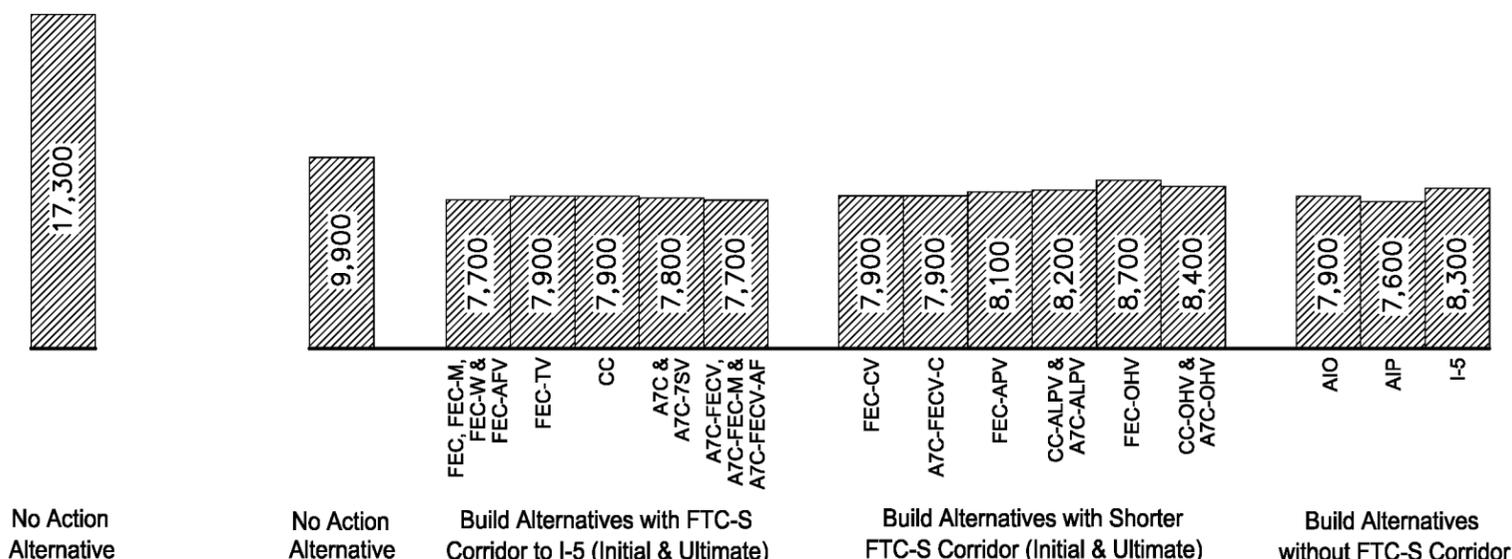
X.X% = Percent of daily vehicle miles of travel (VMT) on I-5 in the study area that is forecast to occur under congested conditions

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
 Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
 Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
 Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Summary of I-5 Congestion in the SOCTIIP Study Area

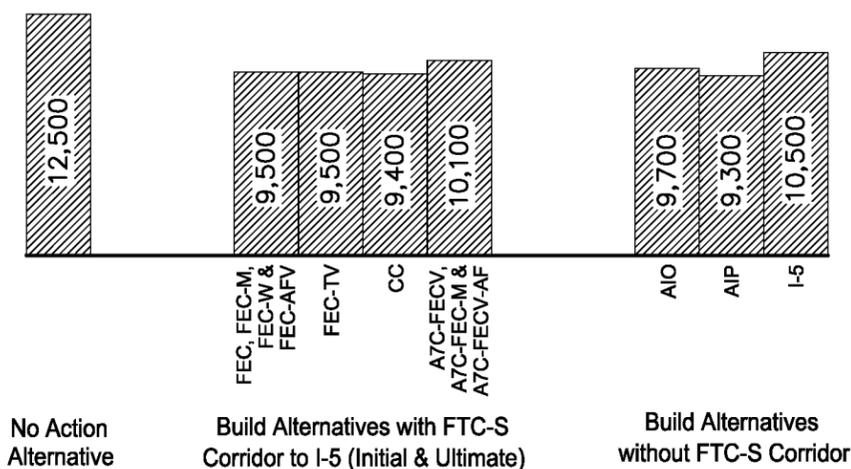


2025 Scenario 1



2025 Scenario 3

2025 Scenario 2



2025 Scenario 4

LEGEND

X,XXX = Total hours of vehicle delay at signalized arterial intersections in the study area during the AM and PM peak hours

Scenario 1: Committed circulation system with 14,000 DU proposed RMV plan.
 Scenario 2: Committed circulation system with 21,000 DU OCP-2000 plan for RMV.
 Scenario 3: Buildout circulation system with 14,000 DU proposed RMV plan.
 Scenario 4: Buildout circulation system with 21,000 DU OCP-2000 plan for RMV.

Summary of Arterial System Congestion in the SOCTIIP Study Area