

7.3 TRANSPORTATION AND CIRCULATION

This chapter focuses on the impacts to transportation and circulation, associated with the implementation of the alternatives carried forward for review under the Section 404 (b)(1) Guidelines. In general, most transportation and circulation impacts are outside the USACE's statutory authority and responsibility under Section 404 of the Clean Water Act. The primary responsibility of evaluating and regulating impacts to transportation and circulation resides with the County of Orange and the cities. As part of the NEPA review, the USACE is analyzing impacts on the environment associated with projects that receive authorizations under Section 404 of the Clean Water Act.

7.3.1 THRESHOLDS OF SIGNIFICANCE

An alternative would have a significant circulation impact if any of the following thresholds are exceeded. Please also refer to the traffic performance criteria set forth in Chapter 4.1.5, Tables 4.1.5-1 through 4.1.5-4, of this EIS.

- A freeway mainline segment is considered to be adversely impacted if:
 1. The segment is forecast to operate deficiently with the project (i.e., worse than the performance standard); and,
 2. The volume to capacity ratio (V/C) for the project increases by greater than 0.03 (the impact threshold specified in the Congestion Management Plan [CMP]) compared to the V/C without the project.
- A freeway ramp is considered to be adversely impacted if:
 1. The ramp is forecast to operate deficiently with the project (i.e., worse than the performance standard); and,
 2. Compared to the V/C without the project, the V/C with the project 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 Laguna Hills, City of Laguna Niguel, and City of San Clemente intersections (the impact threshold adopted by those cities).
- For arterial highways, an intersection is considered to be adversely impacted if:
 1. The intersection is forecast to operate deficiently with the project (i.e., worse than the performance standard adopted by the local jurisdiction); and,
 2. Compared to the ICU without the project, the ICU with the project 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 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).

7.3.1.1 Methodology and Assumptions

This transportation and circulation section addresses the traffic impacts of the proposed alternatives. The overall approach in this EIS is to focus on the analysis of *Long-Range (Year 2025)* which assumes cumulative growth in the traffic study area through year 2025, including buildout of the RMV Planning Area. The primary sources of information for areas outside of the RMV Planning Area were OCP-2000 Modified demographic data, which was adopted by the Orange County Board of Supervisors in 2000 and the General Plans for jurisdictions within the study area. The traffic study area circulation system assumes transportation improvements that have committed funding by 2010. As previously noted, the mitigation program for the RMV Planning Area is based on this assumption.

7.3.2 SAMP PROPOSED PERMITTING PROCEDURES

As discussed previously, the proposed RGP and LOP procedures have been developed for future participants and current participants in the SAMP. The future participants have not yet defined projects for permitting by the RGP or LOP procedures. For projects eligible for authorization by the maintenance RGP, impacts to land use would be minimal. Such activities would be associated with small maintenance projects, resulting in temporary impacts to a small area located in a mostly degraded landscape. New permanent impacts of any type are not expected. Impacts to transportation and circulation would be localized and temporary under the RGP, involving increased traffic from the few vehicles involved in the maintenance work. For projects proposed by future participants that would be eligible for authorization by the LOP procedures, not enough is known about the project size and location or potential impacts to analyze potential impacts to land use at this time. Such projects eligible for authorization by the LOP procedures will be subject to future NEPA review before a final permit decision can be made.

Current participants have defined their proposed projects and have undergone extensive pre-application coordination with the USACE and other federal and state agencies. These projects, the SMWD Proposed Project, RMV Proposed Project, and other alternatives that may have significant effects on the environment are as noted in Chapter 6.0. Therefore, the authorization pursuant to the proposed permitting procedures may also have an effect on the environment per the thresholds of significance. The potential effects and minimization/mitigation measures applicable to these potential effects are further discussed below.

7.3.3 SMWD PROPOSED PROJECT

7.3.3.1 Impacts

Impact

7.3.3-1 *Construction of the proposed Upper Chiquita reservoir may have short-term significant traffic impacts during construction.*

There would be short-term traffic impacts generated during the construction period. Vehicle trips would be associated with trucks hauling materials and supplies to the site and workers commuting to and from the reservoir site. Once the reservoir is constructed, the only trips associated with the facility would be trips by SMWD employees for maintenance and inspection.

7.3.3.2 Mitigation Program

1. The project applicant shall prepare a truck route plan for Oso Parkway for review and approval by the County of Orange prior to the approval of the construction access permit.

7.3.3.3 Level of Significance After Mitigation

It is anticipated that implementation of mitigation would mitigate short-term SMWD-related traffic impacts to a level that is considered less than significant.

7.3.4 ALTERNATIVE B-10 MODIFIED

The RMV Planning Area traffic study has been conducted at a program level of analysis. The following discussion is taken from the GPA/ZC EIR 589 and includes a cumulative analysis of all development within the south Orange County area, including all of the SAMP Study Area. The analysis was conducted for the originally proposed RMV Planning Area project (Alternative B-4) but was also applied to Alternative B-10 Modified, the County's Preferred Alternative, which was adopted by the County Board of Supervisors in November 2004, because similar impacts were anticipated.

7.3.4.1 Impacts

Alternative B-10 Modified Trip Generation

Traffic generation is expressed in terms of vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation factors used in the traffic analysis are from SCSAM, and are consistent with generation factors used in the Orange County Transportation Analysis Model (OCTAM). Table 7.3-1 identifies the trip generation for buildout of Alternative B-10 Modified land uses, including peak hour and daily vehicle trip generation by land use type. The total trip generation is 183,338 trips per day, of which 14,289 are in the a.m. peak hour and 18,033 are in the p.m. peak hour.

**TABLE 7.3-1
ALTERNATIVE B-10 MODIFIED TRIP GENERATION SUMMARY**

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Trip Generation								
1. Single-Family–Detached	4,212 DU	528	2,634	3,162	2,495	1,193	3,687	38,544
2. Single-Family–Attached	2,808 DU	293	1,548	1,841	1,423	641	2,064	21,560
3. Senior Housing	5,360 DU	330	991	1,321	1,092	688	1,780	18,739
4. Senior Apartments	640 DU	39	118	158	130	82	213	2,237
5. Apartments	980 DU	89	444	534	416	192	608	6,335
7. General Commercial	750 TSF	1,412	664	2,076	1,521	1,880	3,401	34,118
8. Specialty Retail	230 TSF	377	172	549	394	499	893	8,936
9. R&D/Business Park	3,660 TSF	2,495	573	3,069	1,074	2,692	3,766	35,502
10. Office	560 TSF	466	114	581	223	515	739	7,013
11. Golf Course	1,057 AC	153	47	200	104	189	293	2,854
12. Elementary/Middle School	4,200 STU	540	52	592	144	249	393	5,284
13. High School	900 STU	116	11	127	31	53	84	1,132
16. Resort Hotel	250 Rooms	61	18	79	38	74	112	1,085
Total		6,901	7,389	14,289	9,086	8,947	18,033	183,338
AC: acre ADT: average daily trips DU: dwelling unit STU: student TSF: thousand square fee Source: The Ranch Plan EIR 589								

Project Trip Distribution

The external trip distribution pattern for buildout of Alternative B-10 Modified is depicted in Figure 7.3-1. The distribution is derived from the SCSAM and reflects the site’s proximity to surrounding land use patterns and the mix of uses within the RMV Planning Area. The distribution is depicted here for both the committed circulation network and a circulation network that includes the La Pata Avenue extension and the SR-241 extension.

Figure 7.3-2 depicts the on-site roadway system. With buildout of Alternative B-10 Modified, the proposed Cow Camp Road would provide a new east-west roadway north of San Juan Creek extending east from Antonio Parkway and connect to an intersection with existing Ortega Highway in the easternmost part of the RMV Planning Area. A Street would extend north from Cow Camp Road into Planning Area 2, and connect to an intersection with existing Oso Parkway (this roadway would not serve through traffic). C Street, a north-south roadway, would extend north from Cow Camp Road into Planning Area 3, and southerly to connect to the easterly termination point of Avenida Pico. If the SR-241 extension is not built, then the on-site roadway system would include an arterial (Cristianitos Road/F Street) along the SR-241 alignment. Chiquita Canyon Road would intersect with this arterial within the boundaries of development within Planning Area 2.

Impact

7.3.4-1 *Buildout of Alternative B-10 Modified under the Year 2025 + Alternative B-10 Modified Buildout traffic scenario would result in significant cumulative impacts to study area intersections, freeway ramps, and freeway mainline segments.*

Year 2025 + Alternative B-10 Modified Buildout + Cumulative Traffic Analysis

The cumulative analysis results presented herein represents *Existing Conditions + Alternative B-10 Modified Buildout + Cumulative Conditions*. As previously noted, the traffic forecasts for the surrounding areas use year 2025 demographic data as the basis for the cumulative setting. The primary information source is the OCP-2000 Modified demographic data forecasts for Orange County. These projections are the basis for long-range transportation planning in Orange County, and provide an appropriate cumulative database for long-range analysis purposes.

The cumulative analysis addresses three scenarios, each with different transportation system assumptions for the portion of the traffic study area outside the RMV Planning Area:

- Committed circulation system (see discussion and description earlier in Chapter 4.1.5).
- Committed circulation system plus La Pata Avenue extension.
- Committed circulation system plus La Pata Avenue extension and the SR-241 extension.

Each scenario assumes buildout of Alternative B-10 Modified and year 2025 cumulative land use assumptions for the remainder of the study area.

Year 2025 + Alternative B-10 Modified Buildout: Roadway Segment Volumes

The following summarizes *Year 2025 + Alternative B-10 Modified Buildout*, inclusive of cumulative, ADT traffic forecast data for the three circulation system scenarios.

Committed Circulation System. The ADT volumes for the *Year 2025 + Alternative B-10 Modified Buildout* scenario assuming the committed circulation system are depicted in Figure 7.3-3.

Committed Circulation System Plus La Pata Avenue Extension. The ADT volumes for the *Year 2025 + Alternative B-10 Modified Buildout* scenario assuming the committed circulation system and the extension of La Pata Avenue are depicted in Figure 7.3-4.

Committed Circulation System Plus La Pata Avenue Extension and the SR-241 Extension. The ADT volumes for the *Year 2025 + Alternative B-10 Modified Buildout* scenario assuming the committed circulation system, the extension of La Pata Avenue, and the SR-241 extension are depicted in Figure 7.3-5.

Year 2025 + Alternative B-10 Modified Buildout: Intersection Levels of Service

Figures 7.3-6 and 7.3-7 identify the location of intersections for year 2025 without and with the proposed SR-241 southerly extension, respectively. Locations that do not meet the traffic performance criteria set forth in this EIS are considered cumulative impacts of Alternative B-10 Modified. The impacted locations, as set forth in GPA/ZC EIR 589, are as follows for each of the year 2025 scenarios.

Committed Circulation System. For the scenario based on the committed circulation system, the following intersections (Figures 7.3-6 and 7.3-7) are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative B-10 Modified:

City of Mission Viejo

- 4. Felipe Road at Oso Parkway–p.m. peak
- 11. Marguerite Parkway at Crown Valley Parkway–a.m. peak and p.m. peak
- 24. Marguerite Parkway at Avery Parkway–a.m. peak

City of Rancho Santa Margarita

- 59. SR-241 northbound ramps at Antonio Parkway–a.m. peak

City of San Clemente

- 37. Avenida La Pata at Avenida Vista Hermosa–a.m. peak and p.m. peak
- 38. Avenida Talega at Avenida Vista Hermosa–a.m. peak and p.m. peak
- 39. Camino Vera Cruz at Avenida Vista Hermosa–a.m. peak and p.m. peak
- 56. I-5 southbound ramps at Avenida Pico–a.m. peak and p.m. peak
- 57. I-5 northbound ramps at Avenida Pico–a.m. peak

City of San Juan Capistrano

- 28. La Novia Avenue at Ortega Highway–p.m. peak
- 30. Camino Capistrano at Del Obispo Street–a.m. peak and p.m. peak
- 32. Valle Road at San Juan Creek–a.m. peak
- 33. La Novia Avenue at San Juan Creek–a.m. peak
- 53. Valle Road at La Novia Avenue/I-5 northbound ramps–a.m. peak and p.m. peak
- 74. I-5 northbound ramps at Junipero Serra Road–p.m. peak

Unincorporated Orange County

- 5. Antonio Parkway at Oso Parkway–a.m. peak and p.m. peak
- 12. Antonio Parkway at Crown Valley Parkway–p.m. peak
- 29. Antonio Parkway/La Pata Avenue at Ortega Highway–a.m. peak and p.m. peak

Committed Circulation System Plus La Pata Avenue Extension. For the scenario based on the committed circulation system with a La Pata Avenue extension, the following intersections (Figures 7.3-6 and 7.3-7) are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative B-10 Modified:

City of Mission Viejo

4. Felipe Road at Oso Parkway–p.m. peak
11. Marguerite Parkway at Crown Valley Parkway–a.m. peak and p.m. peak

City of Rancho Santa Margarita

59. SR-241 northbound ramps at Antonio Parkway–a.m. peak

City of San Clemente

37. Avenida La Pata at Avenida Vista Hermosa–a.m. peak and p.m. peak
39. Camino Vera Cruz at Avenida Vista Hermosa–a.m. peak and p.m. peak
56. I-5 southbound ramps at Avenida Pico–a.m. peak and p.m. peak
57. I-5 northbound ramps at Avenida Pico–a.m. peak

City of San Juan Capistrano

28. La Novia Avenue at Ortega Highway–p.m. peak
30. Camino Capistrano at Del Obispo Street–a.m. peak and p.m. peak
32. Valle Road at San Juan Creek–a.m. peak
74. I-5 northbound ramps at Junipero Serra Road–p.m. peak

Unincorporated Orange County

5. Antonio Parkway at Oso Parkway–a.m. peak and p.m. peak
12. Antonio Parkway at Crown Valley Parkway–p.m. peak
29. Antonio Parkway/La Pata Avenue at Ortega Highway–a.m. peak and p.m. peak
43. Antonio Parkway at New Ortega Highway–p.m. peak

Committed Circulation System Plus La Pata Avenue Extension Plus SR-241 Extension. For the scenario based on the committed circulation system with a La Pata Avenue extension and a SR-241 extension, the following intersections (Figures 7.3-6 and 7.3-7) are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative B-10 Modified.

City of Mission Viejo

4. Felipe Road at Oso Parkway–p.m. peak
11. Marguerite Parkway at Crown Valley Parkway–a.m. peak and p.m. peak

City of Rancho Santa Margarita

59. SR-241 northbound ramps at Antonio Parkway–a.m. peak

City of San Clemente

39. Camino Vera Cruz at Avenida Vista Hermosa–a.m. peak and p.m. peak

City of San Juan Capistrano

30. Camino Capistrano at Del Obispo Street–a.m. peak and p.m. peak
32. Valle Road at San Juan Creek–a.m. peak
74. I-5 northbound ramps at Junipero Serra Road–p.m. peak

Unincorporated Orange County

5. Antonio Parkway at Oso Parkway–a.m. peak and p.m. peak
12. Antonio Parkway at Crown Valley Parkway–a.m. peak and p.m. peak
29. Antonio Parkway/La Pata Avenue at Ortega Highway–a.m. peak and p.m. peak
43. Antonio Parkway at New Ortega Highway–p.m. peak

Year 2025 + Project Buildout: Freeway Ramp Levels of Service

As a part of the GPA/ZC EIR 589, the 2025 peak hour V/C ratios were determined for the traffic study area freeway ramps for the committed circulation system, the committed circulation system with the La Pata Avenue extension, and the committed circulation system with the La Pata Avenue extension and the SR-241 extension.

Committed Circulation System. For the scenario based on the committed circulation system, the following ramps are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative B-10 Modified.

- I-5 southbound off-ramp at Oso Parkway–p.m. peak
- I-5 northbound direct on-ramp at Crown Valley Parkway–p.m. peak
- I-5 southbound off-ramp at Crown Valley Parkway–p.m. peak
- I-5 northbound on-ramp at Junipero Serra Road–a.m. peak
- I-5 northbound on-ramp at Ortega Highway–a.m. peak and p.m. peak

- I-5 southbound off-ramp at Avenida Vista Hermosa—a.m. peak
- I-5 northbound on-ramp at Avenida Pico—p.m. peak

Committed Circulation System Plus La Pata Avenue Extension. For the scenario based on the committed circulation system with a La Pata Avenue extension, the following ramps are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative B-10 Modified.

- I-5 southbound off-ramp at Oso Parkway—p.m. peak
- I-5 northbound direct on-ramp at Crown Valley Parkway—p.m. peak
- I-5 southbound off-ramp at Crown Valley Parkway—p.m. peak
- I-5 northbound on-ramp at Junipero Serra Road—a.m. peak
- I-5 northbound on-ramp at Ortega Highway—a.m. peak and p.m. peak

Committed Circulation System Plus La Pata Avenue Extension Plus SR-241 Extension. For the scenario based on the committed circulation system with a La Pata Avenue extension and a SR-241 extension, the following ramps are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative B-10 Modified.

- I-5 southbound off-ramp at Oso Parkway—p.m. peak
- I-5 northbound direct on-ramp at Crown Valley Parkway—p.m. peak
- I-5 southbound off-ramp at Crown Valley Parkway—p.m. peak
- I-5 northbound on-ramp at Ortega Highway—a.m. peak and p.m. peak
- I-5 northbound on-ramp at Avenida Pico—p.m. peak

Year 2025 + Alternative B-10 Modified Buildout: Freeway Mainline Levels of Service

The GPA/ZC EIR 589 identified the year 2025 peak hour V/C ratios for the study area freeway mainline segments assuming the committed circulation system scenario, the committed circulation system scenario with the extension of La Pata Avenue, and the committed circulation system scenario with the extension of La Pata Avenue and the SR-241 extension.

Committed Circulation System. For the scenario based on the committed circulation system, the following freeway mainline segments are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative B-10 Modified:

- Northbound I-5 north of Oso Parkway—a.m. peak and p.m. peak
- Southbound I-5 north of Oso Parkway—p.m. peak
- Northbound I-5 north of Ortega Highway—a.m. peak
- Southbound I-5 north of Ortega Highway—p.m. peak

- Northbound I-5 north of Camino Capistrano—a.m. peak and p.m. peak
- Southbound I-5 north of Camino Capistrano—p.m. peak
- Northbound I-5 south of Camino Capistrano—a.m. peak and p.m. peak
- Southbound I-5 south of Camino Capistrano—p.m. peak
- Northbound I-5 north of Avenida Vista Hermosa—a.m. peak and p.m. peak
- Southbound I-5 north of Avenida Vista Hermosa—a.m. peak and p.m. peak
- Northbound I-5 north of Avenida Pico—a.m. peak and p.m. peak
- Southbound I-5 north of Avenida Pico—p.m. peak
- Northbound I-5 south of Avenida Pico—a.m. peak and p.m. peak
- Northbound I-5 south of Avenida Pico—a.m. peak and p.m. peak

Committed Circulation System Plus La Pata Avenue Extension. The following freeway mainline segments are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative B-10 Modified.

- Northbound I-5 north of Oso Parkway—a.m. peak
- Southbound I-5 north of Oso Parkway—p.m. peak
- Southbound I-5 north of Ortega Highway—p.m. peak
- Northbound I-5 north of Camino Capistrano—a.m. peak and p.m. peak
- Southbound I-5 north of Camino Capistrano—p.m. peak
- Northbound I-5 south of Camino Capistrano—a.m. peak and p.m. peak
- Southbound I-5 south of Camino Capistrano—a.m. peak
- Northbound I-5 north of Avenida Vista Hermosa—a.m. peak and p.m. peak
- Southbound I-5 north of Avenida Vista Hermosa—a.m. peak and p.m. peak
- Northbound I-5 north of Avenida Pico—p.m. peak
- Southbound I-5 north of Avenida Pico—p.m. peak
- Northbound I-5 south of Avenida Pico—a.m. peak and p.m. peak
- Southbound I-5 south of Avenida Pico—a.m. peak and p.m. peak

Committed Circulation System Plus La Pata Avenue Extension Plus SR-241 Extension. For the scenario based on the committed circulation system with a La Pata Avenue extension

and a SR-241 extension, the following freeway mainline segments are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative B-10 Modified.

- Northbound I-5 north of Camino Capistrano–a.m. peak
- Northbound I-5 south of Camino Capistrano–a.m. peak
- Northbound I-5 north of Avenida Vista Hermosa–p.m. peak
- Southbound I-5 north of Avenida Vista Hermosa–p.m. peak
- Northbound I-5 south of Avenida Pico–p.m. peak
- Southbound I-5 south of Avenida Pico–p.m. peak

7.3.4.2 Mitigation Program

In conjunction with the approval of the GPA/ZC project for Alternative B-10 Modified, the County of Orange adopted a mitigation program to reduce the impacts associated with impacts on transportation and circulation. These measures are listed below to provide the reader context of the mitigation program, although these measures would be implemented as part of the development project and would be the responsibility of the County of Orange for monitoring. No additional mitigation is required for Alternative B-10 Modified as part of the SAMP project.

Project Design Features

PDF 4.6-1 Antonio Parkway at Cow Camp Road is a new intersection that shall be designed to have adequate capacity with and without the proposed SR-241 extension. Lane configurations and potential grade separations shall be determined subject to the review and approval of the County of Orange and Caltrans in future design studies to ensure that the intersection provides the needed capacity for long-range cumulative demand and, therefore, operates at an acceptable level of service.

Standard Conditions and Requirements

SC 4.6-1 As a part of the submittal of a Tentative Tract Map for an Urban Activity Center development, the project applicant shall submit a Transportation Demand Management (TDM) program consistent with the requirements of the County of Orange TDM Ordinance.

SC 4.6-2 Prior to the recordation of a subdivision map, the subdivider shall place notes on the final map which release and relinquish vehicular access rights to all arterial highways to the County of Orange, except for access locations approved by the County of Orange, in a manner meeting the approval of the Manager, Subdivision and Grading. (County of Orange Standard Condition of Approval, T01, Access Rights)

SC 4.6-3 Prior to the recordation of a subdivision map, the subdivider shall place a note on the map, in a manner that meets the approval of the Manager, Subdivision and Grading Services, that states:

"The private streets constructed within this map shall be owned, operated and maintained by the developer, successors or assigns. The County of Orange shall have no responsibility therefore unless pursuant to appropriate sections of the Streets and Highways Code of the State of California, the said private streets have been accepted into the County Road System by appropriate resolution of the Orange County Board of Supervisors." (County of Orange Standard Condition of Approval, T02, Private Street Responsibility)"

- SC 4.6-4 Prior to the recordation of a subdivision map, the subdivider shall design and construct the following improvements in accordance with plans and specifications meeting the approval of the Manager, Subdivision and Grading:
- A. Streets, bus stops, on-road bicycle trails, street names, signs, striping and stenciling.
 - B. The water distribution system and appurtenances shall also conform to the applicable laws and adopted regulations enforced by the County Fire Chief.
 - C. Underground utilities (including gas, cable, electrical and telephone), streetlights, and mailboxes. (County of Orange Standard Condition of Approval, T04, Public Improvements)
- SC 4.6-5 Prior to the issuance of building permits, the applicant shall pay fees for the Major Thoroughfare and Bridge Fee Program for the Foothill/Eastern Transportation Corridor, in a manner meeting the approval of the Manager, Subdivision and Grading. (County of Orange Standard Condition of Approval, T05, Major Thoroughfare and Bridge Fee Programs)
- SC 4.6-6 Prior to the issuance of any grading permits, the applicant shall provide adequate sight distance per Standard Plan 1117 at all street intersections, in a manner meeting the approval of the Manager, Subdivision and Grading. The applicant shall make all necessary revisions to the plan to meet the sight distance requirement such as removing slopes or other encroachments from the limited use area in a manner meeting the approval of the Manager, Subdivision and Grading Services. (County of Orange Standard Condition of Approval, T07, Site Distance)
- SC 4.6-7 Prior to the recordation of a subdivision map, the subdivider shall install all underground traffic signal conduits (e.g., signals, phones, power, loop detectors, etc.) and other appurtenances (e.g., pull boxes, etc.) needed for future traffic signal construction, and for future interconnection with adjacent intersections, all in accordance with plans and specifications meeting the approval of the Manager, Subdivision and Grading. (County of Orange Standard Condition of Approval, T08, Traffic Signal Conduit)
- SC 4.6-8 A. Prior to the recordation of a subdivision map or the issuance of any building permits, whichever occurs first, the subdivider shall provide plans and specifications meeting the approval of the Manager, Subdivision and Grading, for the design of the following improvements:
- 1) Internal street common private drive system.

- 2) Entrance to the site to emphasize that the development is private by use of signs and other features.
- B. Prior to the recordation of a subdivision map, the applicant shall construct the above improvements in a manner meeting the approval of the Manager, Construction.
- C. Prior to the issuance of any building permits, the subdivider shall provide plans meeting the approval of the Manager, Subdivision & Grading, for the design of the internal pedestrian circulation system within the development. (County of Orange Standard Condition of Approval, T12, Internal Circulation)
- SC 4.6-9 Prior to the recordation of a subdivision map, the subdivider shall dedicate a signal maintenance easement to the County of Orange at the project site access, in a manner meeting the approval of the Manager, Subdivision and Grading. (County of Orange Standard Condition of Approval, T13b, Traffic Signal Maintenance Easement)
- SC 4.6-10 Prior to the recordation of a subdivision map, the subdivider shall design and construct/provide a cash deposit of ___ % of the cost of / /enter into an agreement with the County of Orange, accompanied by financial security, for the cost of ___ % of) a traffic signal at the intersection of ___ and ___, in a manner meeting the approval of the Manager, Subdivision and Grading.¹ (County of Orange Standard Condition of Approval, T14b, Traffic Signal Installation)
- SC 4.6-11 Prior to the recordation of a subdivision map, the applicant shall delineate on the subdivision map a two way reciprocal access and parking easement to all parcels within the map and place a note on the final map reserving the easement for the benefit of all parcels on the map, in a manner meeting the approval of the Manager, Subdivision and Grading. (County of Orange Standard Condition of Approval, T15, Access Easement for Commercial Centers)
- SC 4.6-12 Prior to the recordation of a subdivision map, the applicant shall submit a traffic study of the development for review and approval by the Manager, Subdivision and Grading, in accordance with the Growth Management Plan, Transportation Implementation Manual. The applicant shall retain a traffic engineer licensed in the State of California to perform the traffic study. (County of Orange Standard Condition of Approval, T16, Traffic Study)
- SC 4.6-13 Prior to the approval of any subdivision map (except for financing purposes) for the Ranch Plan development within 1,000 feet of the center line of the conceptual Crown Valley Parkway as shown on the current (as of the date of the Ranch Plan GPA/ZC approval) Master Plan of Arterial Highway (MPAH), between Antonio Parkway and the Foothill Transportation Corridor (FTC), the Director, Resource & Development Management Department (RDMD), County of Orange in consultation with Manager Programming/Planning of Orange County Transportation Authority (OCTA) shall make a finding that said subdivision map does not preclude implementation of Crown Valley Parkway as an MPAH facility.

¹ The specific location of intersections and percentage of deposit would be determined at a future date by the County of Orange.

SC 4.6-14 Prior to recordation of the first tract map (except for financing purposes) for Planning Areas 2, 3, or 5 in the Ranch Plan development, the applicant shall enter into an agreement with the Foothill/Eastern Transportation Corridor Agencies (TCA) to address right-of-way, cost, phasing, implementation and roles and responsibilities relating to all roadway connections to and/or crossings of the SR-241 extension within the Ranch Plan, and/or funding/phasing/construction of other roadways (i.e., F Street) that are needed in the even the extension of SR-241 does not occur. The agreement between the applicant and the TCA shall also be reviewed and approved by the Director, RDMD, County of Orange, for consistency with SCRIP/Development Agreement phasing/milestone objectives.

Mitigation Measures

Alternative B-10 Modified was formulated as part of a comprehensive planning process for the south Orange County sub-region's remaining undeveloped lands. This comprehensive planning approach is intended to result in the design and implementation of a circulation system to accommodate projected growth for the sub-region, including the RMV Planning Area. Given the nature and magnitude of Alternative B-10 Modified and the regional planning process, it is important that mitigation also be viewed in this larger context. For this reason, the traffic mitigation program takes a comprehensive approach in order to reduce/avoid significant adverse impacts. This approach recognizes that the alternative is intended to be built over an extended time period (for purposes of the traffic study, it is assumed that development would be completed by 2025) and that the mitigation program must take into account the circumstances that are reasonably foreseeable when the alternative is implemented. This includes the consideration of foreseeable changes to the circulation system,² as well as the addition of traffic from sources other than the alternative (i.e., cumulative traffic conditions). The proposed mitigation consists of several measures, including road and highway infrastructure improvements that would be provided by means of new and/or expanded capital improvement programs established by the public agencies and funded through fees and/or other methods of financing. Alternative B-10 Modified would contribute to the funding of these programs in an amount proportionate to its fair share contribution to the affected components of the circulation system.

The proposed long-range transportation improvements for 2025 are depicted in Figures 7.4-8 and 7.4-9. The first diagram pertains to the committed circulation system and the second diagram to the committed circulation system plus the addition of the SR-241 extension. Table 7.3-2 lists the transportation improvement program proposed as mitigation for 2025. As the figures and table indicate, the La Pata Avenue extension is a component of the improvement program and the improvements differ depending on whether the SR-241 extension is assumed. Figures 7.3-10 and 7.3-11 depict the *Year 2025 + Project Buildout* ADT volumes with the proposed improvements under conditions without and with the SR-241 extension, respectively.

The transportation improvements would be implemented over time as part of a comprehensive transportation improvement program. It is multi-jurisdictional with specific responsibilities of the various participants clearly defined as part of that program. Fair share contributions of improvements are identified. While such shares are considered in developing the improvement program, they will only be one of the factors considered in establishing the responsibility of Rancho Mission Viejo and other participants.

² In addition to improvements proposed as part of the project, the 2025 circulation system also incorporates those improvements that have already been "committed" in conjunction with existing public agency capital improvement programs, state transportation improvement programs, and mitigation for previously entitled development projects.

Intersections and Freeway Ramps

MM 4.6-1 Table 7.3-2 identifies the transportation improvement program proposed as mitigation for the Ranch Plan project for year 2025. Table 7.3-3 identifies interim improvements. The improvements differ depending on whether the SR-241 southerly extension is assumed. The project applicant shall participate on a fair share basis for improvements associated with cumulative impacts. Funds shall be paid to the County of Orange pursuant to the SCRIP Program.

The South County Roadway Improvement Program (SCRIP) Fee Program was proposed by the County in conjunction with planning efforts aimed at accelerating completion of critical links in the south County arterial highway system. The County has approved an Action Plan which includes a list of highway and intersection improvements. The SCRIP Program is a comprehensive method of implementing the Action Plan to ensure the timely phasing and financing of the highway improvements and intersection improvements. The SCRIP Program was prepared pursuant to Government Code Section 66484.3 and the Orange County Codified Ordinance Section 7-9-316 to finance construction of the highway gaps, intersection improvements, and traffic signals identified in the Action Plan. The "area of benefit" includes the RMV Planning Area and off-site highway links and intersections included in the Action Plan. The improvements, costs, and fees may be divided into zones depending on land uses and phasing. The SCRIP Fee Program is intended to complement, not replace, the existing road fee programs in the south County area. It was adopted by the County concurrent with its action on the GPA/ZC project.

MM 4.6-2 The mitigation program is based on the buildout of land uses in the surrounding area and may change based on the effects of the future land development and future changes to regional transportation patterns. The intersection and freeway ramp improvements shall be implemented and/or pro-rata payment shall be made in accordance with the transportation improvement phasing plan of the SCRIP. Prior to the approval of each Master Area Plan, a traffic analysis which supplements The Ranch Plan EIR Traffic Report (Austin-Foust Associates, Inc., May 2004) shall be submitted for review and approval to the County, Director of Planning and Development Services. The traffic study shall include:

- a. An evaluation of how any proposed refinements to the circulation system and/or milestones remain in substantial compliance with appropriate Development Agreement obligations and Program EIR mitigation measures.
- b. Average Daily Trips generated by uses proposed within the planning area, as distributed onto the surrounding circulation system (both within the Ranch Plan PC Area, and in the surrounding vicinity) including the peak hour characteristics of those trips.

**TABLE 7.3-2
YEAR 2025 CIRCULATION SYSTEM IMPROVEMENT PROGRAM**

Location	Jurisdiction	Improvement	Scenario in which Improvements are Needed ^a	
			Without SR-241	With SR-241
Freeway Interchanges				
Marguerite Parkway-Saddleback College/I-5 Connectors	Caltrans	Construct new connector ramps to and from I-5 north. Note: Implementation of the ramps would require the acquisition of right-of-way. This improvement is expected to impact buildings/structures, as well as require the relocation of utilities. The ramps would be subject to separate, subsequent environmental review. Potential environmental effects may include construction-related traffic, air quality, and noise impacts; land use impacts, aesthetic impacts, and public service and facility impacts.	X	X
Arterial Roads				
Antonio Pkwy. (Old Ortega Hwy. to New Ortega Hwy.)	County	Roadway widening. Note: This roadway widening is assumed as a part of the proposed project. Its impacts are assessed as a part of The Ranch Plan Program EIR.	X	X
New Ortega Hwy. (Antonio Pkwy. to Old Ortega Hwy.)	County	Construct four/six lane roadway to existing Ortega Highway.	X	X
Ortega Highway (I-5 to Antonio Parkway)	San Juan Capistrano/County	Traffic calming Roadway widening east of existing four-lane section to Antonio Parkway. Note: An Environmental Assessment has been prepared by Caltrans. Implementation of improvements is expected to require right-of-way. Potential environmental effects may include traffic, air quality, noise, land use, aesthetics, and public service and facility impacts.	X	X
Oso Parkway (east of Las Flores to SR-241)	County	Roadway widening. Note: Implementation of this road widening could occur within existing graded right-of-way. The project would be subject to separate environmental review. Potential environmental impacts may include construction-related traffic, air quality, and noise impacts.	X	X
Oso Parkway (I-5 to Marguerite Parkway)	Mission Viejo	Roadway widening. Note: Implementation of this road widening is expected to require	X	X

**TABLE 7.3-2 (Continued)
YEAR 2025 CIRCULATION SYSTEM IMPROVEMENT PROGRAM**

Location	Jurisdiction	Improvement	Scenario in which Improvements are Needed ^a	
			Without SR-241	With SR-241
		right-of-way and may impact buildings/structures. The improvement would require separate environmental review. Potential environmental impacts would include construction-related traffic, air quality, and noise impacts. Additional impacts could include land use, aesthetics, and public services and facilities.		
Intersections				
5. Antonio Parkway at Oso Parkway	County	Add fourth eastbound through lane. Note: Implementation of these improvements would require right-of-way, but would not affect buildings or structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as public services and facilities, and land use.	X	
27. Rancho Viejo Road at Ortega Highway	San Juan Capistrano	Convert NB shared left-/through lane to second left-turn lane. Add separate northbound right-turn lane. Note: Implementation of these improvements would require right-of-way, but would not affect buildings or structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities, and land use.	X	X
29. Antonio Parkway/La Pata Avenue at Ortega Highway	County	Add second northbound left-turn lane. Add third northbound through lane. Add third southbound through lane. Note: Implementation of these improvements would require right-of-way, but would not affect buildings or structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities, and land use.	X	
30. Camino Capistrano at Del Obispo Street	San Juan Capistrano	Add second eastbound left-turn lane. Note: Implementation of this improvement would require right-of-	X	X

**TABLE 7.3-2 (Continued)
YEAR 2025 CIRCULATION SYSTEM IMPROVEMENT PROGRAM**

Location	Jurisdiction	Improvement	Scenario in which Improvements are Needed ^a	
			Without SR-241	With SR-241
		way and would impact buildings/structures. The improvement would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities, and land use.		
37. Avenida La Pata at Avenida Vista Hermosa	San Clemente	<p>Add southbound free right-turn lane. Add separate westbound right-turn lane. Add third eastbound left-turn lane.</p> <p>Note: Implementation of these improvements would require right-of-way, but is not expected to affect any buildings or structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as public services and facilities and land use.</p>	X	
39. Camino Vera Cruz at Avenida Vista Hermosa	San Clemente	<p>Add second southbound left-turn lane. Add separate westbound right-turn lane.</p> <p>Note: Implementation of these improvements would require right-of-way, but is not expected to affect any buildings or structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as public services and facilities and land use.</p>	X	X
43. Antonio Parkway at Cow Camp Road	County	<p>Improve at-grade intersection or reconstruct as grade-separated intersection.</p> <p>Note: This roadway widening is assumed as a part of the proposed project. Its impacts are assessed as a part of The Ranch Plan Program EIR.</p>	X	X

**TABLE 7.3-2 (Continued)
YEAR 2025 CIRCULATION SYSTEM IMPROVEMENT PROGRAM**

Location	Jurisdiction	Improvement	Scenario in which Improvements are Needed ^a	
			Without SR-241	With SR-241
59. SR-241 northbound ramps at Antonio Parkway	Rancho Santa Margarita	Add second eastbound left-turn lane. Note: Implementation of this improvement would not require right-of-way, but are expected to impact buildings/structures. The improvement would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities and land use.	X	
74. I-5 northbound ramps at Junipero Serra Road	San Juan Capistrano	Convert eastbound shared left-/thru lane to dedicated left-turn lane. Add second eastbound left-turn lane.	X	X
		Note: Implementation of these improvements would not require right-of-way, but may impact buildings/structures. The improvement would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities and land use.		
Source: The Ranch Plan EIR 589 Table 4.6-26.				

**TABLE 7.3-3
INTERIM CIRCULATION SYSTEM IMPROVEMENT PROGRAM**

Location	Jurisdiction	Improvements	Scenario in which Improvements are Needed ^a		
			1	2	3
Freeway Interchanges					
Ortega Highway at I-5 Interchange	Caltrans	Reconstruct interchange: design to be determined by Caltrans. ^d	X	X	X
		Note: A Project Study Report is under preparation by Caltrans. Reconstruction of the interchange would require right-of-way, and is expected to impact buildings/structures, as well as require the relocation of utilities. The ramps would be subject to separate environmental review. Potential environmental effects may include construction-related traffic, air quality, and noise impacts; land use impacts, aesthetic impacts, and public service and facility impacts.			
Freeway Ramps					
I-5 southbound off-ramp at Oso Parkway	Caltrans	Add second drop lane from I-5 to the off-ramp.	X		X
		Note: An Environmental Assessment has been prepared by Caltrans. This improvement is not expected to require right-of-way or impact buildings/structures. The lane improvement would be subject to separate environmental review. Potential environmental effects may include construction-related traffic, air quality, and noise impacts; and public service and facility impacts.			
I-5 southbound off-ramp at Crown Valley Parkway	Caltrans	Add second auxiliary lane from I-5 to the off-ramp.	X	X	X
		Note: An Environmental Assessment has been prepared by Caltrans. It is unknown whether this improvement would require right-of-way; it is not expected to impact buildings or structures. The lane improvement would be subject to separate environmental review. Potential environmental effects may include construction-related traffic, air quality, and noise impacts; and public service and facility impacts.			
Arterial Roads					
La Pata Avenue extension	County	Extend as four-lane primary arterial from current terminus south of Ortega Highway to existing termination point in the City of San Clemente.		X	X
		Note: The County will be preparing an EIR for this project. This road improvement is expected to require right-of-way and result in the following environmental impacts: biological resources, geology, aesthetics, air quality, and noise.			

**TABLE 7.3-3 (Continued)
INTERIM CIRCULATION SYSTEM IMPROVEMENT PROGRAM**

Location	Jurisdiction	Improvements	Scenario in which Improvements are Needed ^a		
			1	2	3
Cow Camp Road (Antonio Parkway into project site)	County	Construct four-/six-lane roadway into project site.	X ^c	X ^c	X ^c
		Note: This roadway is a part of the proposed project. Its impacts are assessed as a part of GPA/ZC EIR 589.			
Intersections					
4. Felipe Road at Oso Parkway	Mission Viejo	Add second southbound left-turn lane.	X	X	X
		Note: Implementation of this improvement would require right-of-way, but would not affect buildings or structures. The improvement would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as public services and facilities and land use.			
5. Antonio Parkway at Oso Parkway	County	Add fourth southbound through lane.	X	X	X
		Add third northbound left-turn lane.	X	X	X
		Allow right-turn overlap for northbound right.	X	X	X
		Allow right-turn overlap for eastbound right.	X	X	X
		Note: Implementation of these improvements would require right-of-way, but would not affect buildings or structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities, and land use.			
11. Marguerite Parkway at Crown Valley Parkway	Mission Viejo	Restripe southbound movement from two through lanes and separate right turn-lane to a dedicated through lane, shared through/right-turn lane, and separate right-turn lane.	X	X	X
		Add a de-facto westbound right-turn lane.			
		Note: Implementation of these improvements would require right-of-way, but would not affect buildings or structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities, and land use.			
12. Antonio Parkway at Crown Valley Parkway	County	Add third northbound left-turn lane. Add third eastbound left-turn lane. Restripe eastbound movement from two through lanes and separate right-turn lane to single through lane and double right turns.	X	X	X

**TABLE 7.3-3 (Continued)
INTERIM CIRCULATION SYSTEM IMPROVEMENT PROGRAM**

Location	Jurisdiction	Improvements	Scenario in which Improvements are Needed ^a		
			1	2	3
		Note: Implementation of these improvements would require right-of-way, but would not affect buildings or structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities, and land use.			
28. La Novia Avenue at Ortega Highway	San Juan Capistrano	Add second westbound left-turn lane. Note: Implementation of these improvements would require right-of-way, but would not affect buildings or structures. The improvement would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as public services and facilities.	X		
29. Antonio Parkway/La Pata Avenue at Ortega Highway	County	Add southbound free right-turn lane. Add second northbound through lane. Note: Implementation of these improvements would require right-of-way, but would not affect buildings or structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities, and land use.	X	X	X
30. Camino Capistrano at Del Obispo Street	San Juan Capistrano	Add second westbound left-turn lane. Restripe separate southbound right-turn lane to a shared through/right-turn lane. Note: Implementation of these improvements would require right-of-way and would impact buildings/structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities, and land use.	X	X	X
32. Valle Road at San Juan Creek Road	San Juan Capistrano	Add second westbound through lane. Note: Implementation of these improvements would require right-of-way and would impact buildings/structures. The improvement would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise	X		

**TABLE 7.3-3 (Continued)
INTERIM CIRCULATION SYSTEM IMPROVEMENT PROGRAM**

Location	Jurisdiction	Improvements	Scenario in which Improvements are Needed ^a		
			1	2	3
		impacts, as well as public services and facilities and land use.			
37. Avenida La Pata at Avenida Vista Hermosa	San Clemente	Add second eastbound left-turn lane.	X	X	
		Note: Implementation of this turning lane improvement would require right-of-way, but is not expected to affect any buildings or structures. The improvement would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as public services and facilities and land use.			
43. Antonio Parkway at Cow Camp Road	County	Construct new at-grade intersection.	X	X	X
		Note: This roadway widening is assumed as a part of the proposed project. Its impacts are assessed as a part of GPA/ZC EIR 589.			
56. I-5 southbound ramps at Avenida Pico	San Clemente	Convert second westbound through lane to shared second left-turn/through lane.	X	X	
		Note: An Environmental Assessment has been prepared by Caltrans for this improvement. Implementation of this improvement would require right-of-way, but is not expected to affect any buildings or structures. The improvement would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as public services and facilities and land use.			
59. SR-241 northbound ramps at Antonio Parkway	Rancho Santa Margarita	Restripe westbound movements from three through lanes and separate right-turn lane to two through lanes, shared through/right-turn lane, and separate right-turn lane.	X	X	X
		Note: Implementation of these improvements would not require right-of-way, but are expected to impact buildings/structures. The improvements would require separate environmental review. Potential environmental impacts could include short-term traffic, air quality, and noise impacts, as well as aesthetics, public services and facilities and land use.			
<p>a. The background circulation system assumptions for each scenario are as follows: Scenario 1: Committed circulation system. Scenario 2: Committed circulation system with La Pata Avenue extension. Scenario 3: Committed circulation system with La Pata Avenue extension and arterial road south of Oso Parkway at SR-241.</p> <p>b. Improvements at this location are not required in the long-range (2025) mitigation program for Alternative B-10 Modified.</p>					

TABLE 7.3-3 (Continued)
INTERIM CIRCULATION SYSTEM IMPROVEMENT PROGRAM

Location	Jurisdiction	Improvements	Scenario in which Improvements are Needed ^a		
			1	2	3
c. In the interim, Cow Camp Road is only assumed to extend east of Antonio Parkway into the project site and not to existing Ortega Highway. d. The proposed mitigation for the I-5/Ortega Highway interchange involves reconstructing the interchange. A traffic study for the interchange reconstruction is currently ongoing by the City of San Juan Capistrano and Caltrans and the study is scheduled for completion by mid-2004.					
Source: The Ranch Plan EIR 589 Table 4.6-27.					

MM 4.6-3 No improvements are proposed herein to address the cumulative impacts of the project on I-5 mainline. Improvements to the I-5 mainline are a part of regional transportation improvement programs with associated timing and funding sources. If the responsible agencies establish a cumulative mitigation program, the project applicant shall participate on a fair share basis.

7.3.4.3 Level of Significance After Mitigation

The proposed improvements result in acceptable levels of service at each improvement location with the exception of three intersections (Marguerite Parkway at Crown Valley Parkway in the City of Mission Viejo, Camino Capistrano at Del Obispo Street in the City of San Juan Capistrano, and the I-5 southbound ramp intersection at Avenida Pico in the City of San Clemente) under cumulative with Alternative B-10 Modified conditions without the SR-241 extension.

The at-grade and grade-separated plans at the Antonio Parkway/Cow Camp Road intersection both result in acceptable levels of service under cumulative conditions with the SR-241 extension. However, only the grade-separated improvement plan results in acceptable levels of service under cumulative conditions without the SR-241 extension. For this reason, a grade-separated plan may be the preferred design option.

Alternative B-10 Modified's contribution to impacts on freeway mainline segments that are forecast to operate deficiently would be considered significant and unavoidable.

To address those proposed improvements located outside the County's jurisdiction, the County is endeavoring to enter into agreements with the affected jurisdictions regarding the design and construction of the improvements and the transfer of monies paid towards funding of these improvements from the SCRIP program. However, if the County is not able to reach agreement with one or more of the jurisdictions, for purposes of this EIS, the impacts to be mitigated by those improvements may remain significant and be unavoidable.

7.3.5 ALTERNATIVE B-12

7.3.5.1 Impacts

Impact

7.3.5-1 *Buildout of Alternative B-12 under the Year 2025 + Alternative B-12 Buildout traffic scenario would result in significant cumulative impacts to study area intersections, freeway ramps, and freeway mainline segments.*

Like the B-4 and the B-10 Modified Alternatives, the B-12 Alternative assumes 14,000 residential units and a similar amount of non-residential square footage. Therefore, maximum entitlements under Alternatives B-4, B-10 Modified, and B-12 are comparable. It is anticipated that there could be some differences between projected traffic impacts under the B-12 Alternative (as compared with the B-10 Modified Alternative) in the event of a reallocation of residential units/nonresidential square footage between and among the development areas, due to the reduction in size of development areas within Planning Areas 4, 6, 7, and 8, as well as the proposal under Alternative B-12 to retain Cristianitos Road as a private road south of the Ortega Highway. However, such reallocations will not be proposed until master area plans are submitted to the County for each of the planning areas. Therefore, any analysis of the changes would be speculative at this time. Because the maximum levels of development would be unchanged, the significant effects of Alternative B-12 are expected to be similar to those of

Alternative B-10 Modified. It should be noted that GPA/ZC EIR 589 anticipated that there could be changes in traffic over time due to evolving future land development and transportation patterns. For that reason, an updated traffic analysis is required at the master area plan stage of subsequent entitlement, as well as supplemental CEQA review. These supplemental traffic analyses/reviews would include estimates of the average daily traffic (ADT) generated by uses ultimately proposed within the proposed development planning areas, as distributed into the circulation system, and an evaluation of how any proposed changes/refinements to the circulation system are in compliance with applicable Development Agreement obligations and GPA/ZC EIR 589 mitigation measures.

7.3.5.2 Mitigation Program

The mitigation program set forth for Alternative B-10 Modified in GPA/ZC EIR 589 would apply to Alternative B-12. No additional traffic mitigation is required as part of the SAMP project.

7.3.5.3 Level of Significance After Mitigation

The levels of significance after mitigation would be the same for Alternative B-12 as for Alternative B-10 Modified.

7.3.6 ALTERNATIVE A-4

7.3.6.1 Impacts

Impact

7.3.6-1 *Buildout of Alternative A-4 under the Year 2025 + Alternative A-4 Buildout traffic scenario would result in significant cumulative impacts to study area intersections, freeway ramps, and freeway mainline segments.*

Alternative A-4 assumes the same amount of development within the same footprint as Alternative B-10 Modified. Under this alternative, a NCCP/MsAA/HCP or SAMP would not be prepared and permitting would proceed with incremental project-by-project review of new development proposals within the RMV Planning Area. Future development would be subject to incremental project-by-project application of state and federal regulatory jurisdictional wetland program requirements and would be required to minimize impacts on threatened and endangered species at the project level. Because Alternative A-4 assumes the same amount of development within the same footprint as Alternative B-10 Modified, it would have the same traffic and circulation impacts as Alternative B-10 Modified.

7.3.6.2 Mitigation Program

The mitigation program identified in the GPA/ZC 589 EIR for Alternative B-10 Modified would also apply to Alternative A-4.

7.3.6.3 Level of Significance After Mitigation

The levels of significance after mitigation would be the same for Alternative A-4 as for Alternative B-10 Modified.

7.3.7 ALTERNATIVE A-5

Implementation of Alternative A-5 assumes development would occur on approximately 8,000 acres (35 percent) with approximately 14,815 acres (65 percent) of the RMV Planning Area in

open space. This alternative assumes up to 3,000 dwelling units. With 3,000 dwelling units, it is expected that there would be limited employment-generating land uses. New development would avoid impacts to wetlands regulated under state and federal laws/regulations. Non-wetland Waters of the U.S. regulated by the USACE under Section 404 and non-wetland jurisdictional areas regulated by the state under Sections 1601/1603 would be avoided. To ensure total avoidance of state and federal threatened/endangered species, new development would be limited to those portions of RMV Planning Area that are not occupied by state or federally listed species, and for regulated waters, access would be dependent on existing arterial highways and the ranch road network (i.e., the existing dirt/gravel roads) with surfacing limited to existing road widths.

The potential Alternative A-5 traffic impacts were not evaluated in GPA/ZC EIR 589. However, a traffic analysis was conducted for another alternative (i.e., Alternative A-2, Existing Zoning), assuming a committed circulation system, which was projected to have a similar amount of low-density estate residential development spread throughout the RMV Planning Area, with access also provided via existing ranch roads. Because of these similar characteristics, the total number of vehicular trips (approximately 30,000 ADT) and the impacts projected for Alternative A-2 are presented here as a surrogate for Alternative A-5.

7.3.7.1 Impacts

Impact

7.3.7-1 *Buildout of Alternative A-5 under the Year 2025 + Alternative A-5 Buildout traffic scenario would result in significant cumulative impacts to study area intersections, freeway ramps, and freeway mainline segments.*

To assume a worst-case analysis, this traffic scenario assumes that the 3,000 dwelling units would be detached units. Therefore, Alternative A-5 would generate approximately 29,878 trips per day.

Year 2025 + Alternative A-5: Intersection Levels of Service

For the scenario based on the committed circulation network, the following intersections (Figures 7.3-6 and 7.3-7) are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative A-5:

City of Mission Viejo

4. Felipe Road at Oso Parkway–p.m. peak
11. Marguerite Parkway at Crown Valley Parkway–a.m. peak and p.m. peak
24. Marguerite Parkway at Avery Parkway–a.m. peak

City of Rancho Santa Margarita

59. SR-241 northbound ramps at Antonio Parkway–a.m. peak

City of San Clemente

37. Avenida La Pata at Avenida Vista Hermosa–a.m. peak and p.m. peak
39. Camino Vera Cruz at Avenida Vista Hermosa–a.m. peak and p.m. peak

56. I-5 southbound ramps at Avenida Pico–a.m. peak and p.m. peak
57. I-5 northbound ramps at Avenida Pico–a.m. peak

City of San Juan Capistrano

28. La Novia Avenue at Ortega Highway–p.m. peak
30. Camino Capistrano at Del Obispo Street–a.m. peak and p.m. peak
32. Valle Road at San Juan Creek–a.m. peak
33. La Novia Avenue at San Juan Creek–a.m. peak
53. Valle Road at La Novia Avenue/I-5 northbound ramps–a.m. peak and p.m. peak
74. I-5 northbound ramps at Junipero Serra–p.m. peak

Unincorporated Orange County

5. Antonio Parkway at Oso Parkway–a.m. peak and p.m. peak
12. Antonio Parkway at Crown Valley Parkway–p.m. peak
29. Antonio Parkway/La Pata Avenue at Ortega Highway–a.m. peak and p.m. peak

Year 2025 + Alternative A-5 Buildout: Freeway Ramp Levels of Service

For the committed circulation network, the following ramps are forecast to operate at a deficient level of service and are considered cumulative impacts of Alternative A-5.

- I-5 southbound off-ramp at Oso Parkway–p.m. peak
- I-5 northbound direct on-ramp at Crown Valley Parkway–p.m. peak
- I-5 southbound off-ramp at Crown Valley Parkway–p.m. peak
- I-5 northbound on-ramp at Junipero Serra Road–a.m. peak
- I-5 northbound on-ramp at Ortega Highway–a.m. peak and p.m. peak
- I-5 northbound direct on-ramp at Avenida Vista Hermosa–p.m. peak
- I-5 southbound off-ramp at Avenida Vista Hermosa–a.m. peak
- I-5 northbound on-ramp at Avenida Pico–p.m. peak

Year 2025 + Alternative A-5 Buildout: Freeway Mainline Levels of Service

For the committed circulation network, the following freeway mainline segment locations are forecast to operate at a deficient level of service with Alternative A-5.

- I-5 north of Oso Parkway–a.m. peak and p.m. peak

- I-5 north of Ortega Highway–a.m. peak and p.m. peak
- I-5 north of Camino Capistrano–a.m. peak and p.m. peak
- I-5 south of Camino Capistrano–a.m. peak and p.m. peak
- I-5 north of Avenida Vista Hermosa–a.m. peak and p.m. peak
- I-5 north of Avenida Pico–a.m. peak and p.m. peak
- I-5 south of Avenida Pico–a.m. peak and p.m. peak

7.3.7.2 Mitigation Program

Although Alternative A-5 would generate substantially less traffic than the other alternatives addressed in this chapter, given the projected impacts under the 2025 scenario and the number of deficient intersections and other facilities, it is expected that a substantial mitigation program to provide required road/intersection improvements would also be required for this alternative in order to address cumulative impacts. As with the other alternatives, a fair share contribution towards the cost of these improvements would be required to be paid into a SCRIP-like program.

7.3.7.3 Level of Significance After Mitigation

As with the other alternatives, it is expected that the provision of necessary improvements would result in acceptable levels of service at most of the improvement locations. To the extent that the improvements lie outside of the County's jurisdiction, the County would be required to enter into agreements with the affected jurisdictions regarding the design and construction of the improvements and the transfer of monies paid towards funding of these improvements from a SCRIP-like program. However, if the County is not able to reach agreement with one or more of the jurisdictions, for purposes of this EIS, the impacts to be mitigated by those improvements may remain significant and be unavoidable. Alternative A-5's contribution to impacts on freeway mainline segments that are forecast to operate deficiently would be considered significant and unavoidable.