## 3.5 Traffic and Transportation

The following discussion is based on the *Traffic Study for Highlands Ranch in the County of San Diego*, dated September 26, 2007, prepared by Darnell & Associates, Inc. This report is included in its entirety in Technical Appendix B of this SEIR.

The term "level of service" (LOS) is used throughout this section. The current technical guide to the evaluation of traffic operations is the 2000 *Highway Capacity Manual* (HCM). The HCM defines LOS as a quantitative measure that describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria to evaluate LOS conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted. LOS is defined on a scale of A to F; where LOS A represents the best operating conditions and LOS F represents the worst operating conditions. Facilities operating at LOS A are characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds, traffic volumes are low and travel speeds are high. Facilities operating at LOS F are characterized as having forced flow with many stoppages and low operating speeds. *Table 3-19, Level of Service (LOS) Ranges*, shows the average daily traffic (ADT) and delay ranges that are equivalent to each LOS.

**Table 3-19 LEVEL OF SERVICE (LOS) RANGES**

| Level of Service | Roadway Segments - Average Daily Traffic (ADT) Volume[1] | Signalized Intersections - Delay (Seconds/Vehicle)[2] | Unsignalized Intersections - Delay (Seconds/Vehicle)[2] |
|---|---|---|---|
| A | Less Than 1,900 | Less Than or Equal to 10.0 | Less Than or Equal to 10.0 |
| B | 1,900 to 4,100 | 10.1 to 20.0 | 10.1 to 15.0 |
| C | 4,100 to 7,100 | 20.1 to 35.0 | 15.1 to 25.0 |
| D | 7,100 to 10,900 | 35.1 to 55.0 | 25.1 to 35.0 |
| E | 10,900 to 16,200 | 55.1 to 80.0 | 35.1 to 50.0 |
| F | Greater Than 16,200 | Greater than 80.0 | Greater than 50.0 |

[1] The volume ranges are based on the County of San Diego Circulation Element of a Light Collector, the average daily volume ranges for the other roadway classifications has been provided in Appendix B.
[2] The delay ranges shown are based on the 2000 Highway Capacity Manual (HCM).

The County of San Diego encourages operation of LOS C or better at planned intersections and roadway segments. In developed areas, LOS D is an acceptable LOS for existing intersections and roadway segments. The proposed Highlands Ranch project site is located in a developed area with existing access routes; therefore, LOS D is an acceptable LOS at the existing intersections and roadway segments.

### 3.5.1 Existing Conditions

Primary local access to the Highlands Ranch property is provided Jamacha Boulevard between Sweetwater Road and Sweetwater Springs Boulevard. *Figure 3-11, Existing Lane Configurations*, identifies the existing conditions for study area roadways. Because the project site is vacant, it

generates negligible traffic volumes. There is currently no vehicular access through the site except for several dirt roads used primarily to service the existing onsite OWD water storage reservoir.

Following is a brief description of existing main roadways that service the local area. Existing daily and peak hour traffic counts are depicted on *Figure 3-12, Existing Traffic Volumes.*

- **Paradise Valley Road (SA-1050)** is a four-lane collector road posted at 45 miles per hour (mph) with bike lanes, and a roadway capacity of 34,200 average daily traffic (ADT) at level of service (LOS) E. This facility provides access to the west into San Diego, Chula Vista and National City.

- **South Bay Parkway (SR-54)** is typically a four-lane divided freeway and lies within the ultimate SR-54 corridor. Caltrans improvements on South Bay Parkway are in progress from I-805, including grade separated interchanges. Alternatives for the ultimate completion of the SR-54 are being assessed by SANDAG, Caltrans, and the County of San Diego. A project study report will not be completed on the alternatives, including preferred alignments until late in 2006.

- **Sweetwater Road (SF-1269)** allows for two travel lanes in each direction. The posted speed limit is 45 mph. Sweetwater Road has the Circulation Element Classification of a Collector Road with bike lanes and a roadway capacity of 34,200 ADT at LOS E.

- **Jamacha Boulevard (SF-1397)** is constructed to four-lane major road standards capacity of 37,000 ADT at LOS E, from Sweetwater Road to La Presa Street. Between La Presa and Omega Streets, Jamacha Blvd. has three travel lanes, two westbound lanes and one eastbound lane. This facility is posted at 45 mph outside the business area and 40 mph within the business area.

  The section of Jamacha Blvd. between Omega Street and Pointe Parkway is constructed as a two lane undivided highway, with a roadway capacity of 16,200 ADT at LOS E. From Pointe Parkway to State Route 94, Jamacha Blvd. is constructed as a four lane roadway with a double yellow divider and a posted speed limit of 50 mph. This section has a cross-section equivalent to that of a major road with a capacity of 37,000 ADT at LOS E. Jamacha Blvd. is part of SANDAG's regionally significant arterial (RSA) system. Improvements to Jamacha Boulevard are currently under construction (refer to County CG-4476/Log 89-19-015E). SANDAG is not recommending improvements beyond those contained in the General Plan Circulation Elements identified by cities and counties.

- **Sweetwater Springs Boulevard (SA-970)** is constructed from SR-94 westbound ramps to approximately 300 feet north of Jamacha Blvd. as a four-lane roadway which is divided with either a continuous center left turn lane or a 12 to 14 foot painted median. This segment of Sweetwater Springs Blvd. has a cross-section equivalent of a Major Road with a capacity of 37,000 ADT at LOS E, and is posted at 45 mph.

- **Campo Road/State Route 94 (SR-94)** is a four-lane freeway east of Avocado Drive with a posted speed limit of 65 mph and a roadway capacity of 80,000 ADT at LOS E. West of Avocado Drive, Campo Road is a four-lane major roadway with a painted median and a posted speed limit of 55 mph with a roadway capacity of 37,000 ADT at LOS E.

- **Austin Drive (SC-2130)** is a two-lane undivided light collector. East of Barcelona Street, Austin Drive has a continuous center left turn lane, bike lanes, permitted parking, and a posted speed limit of 40 mph. West of Barcelona Street, the speed limit is reduced to 30 mph and the roadway width narrows to 29 feet, and reflects improvements to interim Public Road Standards. There are no bike lanes or center left turn lane, and parking is prohibited. The Circulation Element Classification of Austin Drive is a Light Collector with bike lanes, with a roadway capacity of 16,200 ADT at LOS E.

- **Barcelona Street (SC-2110)** is a two lane roadway with a posted speed limit of 25 mph. North of Austin Drive, Barcelona Street has 36 feet of pavement and is classified as a light collector on the Circulation Element. There is a center left turn lane, bike lanes, and permitted parking. South of Austin Drive, Barcelona Street is 64 feet wide from curb to curb. (this section is not a Circulation Element roadway). Parking is not allowed and there is no center left turn lane or bike lanes.

- **Montemar Drive** is a two lane residential facility servicing residential properties in the area. Based on field reviews, Montemar Drive is an improved public street within a dedicated right-of-way of 52 feet, and built to interim Public Road Standards (i.e., paved width of 28 feet). Montemar Drive cannot meet the minimum County design standards for horizontal sight distance, vertical grade, or shoulders using the existing right-of-way. In order to meet minimum County standards, this facility would require extensive right-of-way acquisition, condemnation of existing houses, grading, and realignment.

*Table 3-20, Existing Conditions Roadway Segment Summary*, shows the existing levels of service for various roadway segments within the proposed project vicinity. The following segments were found to operate at deficient (worse than LOS D) conditions:

- Jamacha Blvd. from Omega to Jamacha Road (Maya): This section fails in the existing condition as a two-lane facility. This segment is currently under construction for improvements to a four-lane facility. (Refer to County Project Number CG-4476/Log 89-19-105E).

- Jamacha Blvd. from Jamacha (Maya) Road to Whitestone Road: This section fails in the existing condition as a two-lane facility, but is under construction for improvements. (Refer to County Project Number CG-4476/Log 89-19-105E).

- Jamacha Blvd. from Whitestone Road to Pointe Parkway: This section fails in the existing condition as a two-lane facility, but is under construction for improvements. (Refer to County Project Number CG-4476/Log 89-19-105E).

- Jamacha Blvd. south of Campo Road: This section fails in the existing condition as a four-lane facility based on daily traffic volume thresholds.

**Table 3-20 EXISTING CONDITIONS ROADWAY SEGMENT SUMMARY**

| Roadway Segment | Maximum Capacity | ADT | LOS | V/C |
|---|---|---|---|---|
| Jamacha Blvd: Grand/La Presa | 37,000 | 21,097 | B | 0.570 |
| Jamacha Blvd: La Presa/Omega | 37,000 | 19,340 | B | 0.523 |
| Jamacha Blvd: Omega/Jamacha | 16,200 | 18,079 | F | 1.116 |
| Jamacha Blvd: Jamacha/Whitestone | 16,200 | 20,093 | F | 1.240 |
| Jamacha Blvd: Whitestone/Pointe | 16,200 | 21,695 | F | 1.339 |
| Jamacha Blvd: Pointe/Sweetwater | 37,000 | 25,527 | C | 0.690 |
| Jamacha Blvd: Sweetwater/Calavo | 37,000 | 16,170 | B | 0.437 |
| Jamacha Blvd: south of Campo | 37,000 | 36,505 | E | 0.987 |
| Barcelona: north of Austin | 4,500 | 2,990 | <C | 0.664 |
| Barcelona: south of Austin | 4,500 | 1,698 | <C | 0.377 |
| Austin: Barcelona/Sweetwater | 16,200 | 4,481 | C | 0.277 |
| Sweetwater: Del Rio/Austin | 37,000 | 24,557 | B | 0.664 |
| Sweetwater: Austin/Jamacha | 37,000 | 15,055 | B | 0.407 |

LOS = Level of Service; ADT = Average Daily Traffic; V/C = Volume to Capacity; <C = Better than LOS C Maximum Capacity per County of San Diego Public Road Standards
*SOURCE: Darnell & Assoc., September 26, 2007*

A total of 15 intersections in the vicinity of the proposed project site have been evaluated to determine their existing levels of service. The 15 intersections and their morning and evening peak hour LOS are listed below in Table 3-21, *Existing Conditions Intersection Analysis.* All of the evaluated intersections operate at acceptable levels of service and no deficiencies are reported.

**Table 3-21 EXISTING CONDITIONS INTERSECTION ANALYSIS**

| Intersection | Existing AM | | Existing PM | |
|---|---|---|---|---|
| | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS |
| Jamacha Boulevard/Grand | 30.2 | C | 24.3 | C |
| Jamacha Boulevard/La Presa | 22.1 | C | 21.1 | C |
| Jamacha Boulevard/Omega | 17.1 | C | 13.9 | B |
| Jamacha Boulevard/Jamacha (Maya) | 22.1 | C | 11.6 | B |
| Jamacha Boulevard/Whitestone | 17.8 | B | 11.1 | B |
| Jamacha Boulevard/Pointe Parkway | 31.1 | C | 29.0 | C |
| Jamacha Boulevard/Sweetwater Springs | 25.1 | C | 24.8 | C |
| Jamacha Boulevard/Doubletree | 20.2 | C | 21.5 | C |
| Jamacha Boulevard/Campo (SR94) | 24.3 | C | 45.2 | D |
| Sweetwater Springs/Austin | 29.0 | C | 30.0 | C |
| Sweetwater Springs/Del Rio | 17.8 | B | 18.2 | B |
| Sweetwater Springs/SR-94-EB | 30.5 | C | 19.1 | B |
| Sweetwater Springs/SR-94-WB | 35.3 | D | 38.4 | D |
| Aqua Dulce/SR94-EB Off | 12.4 | B | 13.1 | B |
| Austin/Barcelona | 8.0 | A | 8.9 | A |

Delay in seconds per vehicle; LOS = level of service
Delay and LOS calculate using HCS 4.1d
*SOURCE: Darnell & Associates, Inc., September 26, 2007*

### 3.5.2 Guidelines for the Determination of Significance

The Project would have a significant adverse effect on the issue of traffic and transportation if any of the following would occur as a result of a Project-related component. These criteria are based on the standards of the County of San Diego Significance Criteria/Traffic Impact Guidelines, adopted by the County of San Diego on September 26, 2006. Would the Project:

- Result in construction traffic that would significantly affect traffic on adjacent roadways.
- Conflict with Levels of Service thresholds identified in the Public Facility Element of the San Diego County General Plan.
- Conflict with the criteria and/or thresholds established for large scale projects in the San Diego Region's Congestion management Program.
- Substantially increase hazards due to a design feature (sharp curves or dangerous intersections) or incompatible uses (farm equipment).

- Result in inadequate access for emergency vehicles.

- Cause in a change of traffic patterns that result in substantial safety risks:

  - Design features/physical configurations of access roads adversely affect the safe transport of vehicles along the roadway.

  - The percentage and/or magnitude of increased traffic on the road due to the proposed project affect the safety of the roadway.

  - The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers that could result in vehicle conflicts with other vehicles and/or stationary objects.

  - The project does not conform to the requirements of private or public road standards, as applicable.

- Result in inadequate parking capacity based on parking requirement codes.

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system.

  "Substantial" is defined as follows for roadway segments and signalized intersections:

  Roadway Segments:
  The project would have a significant project impact on a roadway segment if:

  - The additional or redistribution of ADT generated by the project would cause an adjacent or nearby County Circulation Element roadway to operate below LOS D and would significantly increase congestion as identified in *Table 3-22, Measures of Significant Project Impacts/Allowable Increases on Congested Roads & Intersections* (below), and/or:

  - The additional or redistributed ADT generated by the proposed project would cause a residential street to exceed its design capacity, and/or:

  - The additional or redistributed ADT generated by the proposed project would significantly increase congestion on a Circulation Element Road, State Highway or intersection currently operating at LOS E or LOS F (as identified in *Table 3-22* below).

  Signalized Intersections
  The project would have a significant project impact at a signalized intersection if:

  - The additional or redistribution of ADT generated by the project would cause signalized intersection to operate below LOS D and would significantly increase congestion as identified in *Table 3-22* and/or:

- The addition or redistributed ADT generated by the proposed project would significantly increase congestion at a signalized intersection currently operating at LOS E or LOS F as identified in *Table 3-22*.

Unsignalized Intersections
The project would have a significant project impact at an unsignalized intersection if:

- The proposed project contributes 20 or more peak hour trips to a critical turn movement and causes the unsignalized intersection to operate below LOS D, or

- The proposed project contributes 20 or more peak hour trips to a critical turn movement and the unsignalized intersection currently operates at LOS E, or

- The proposed project contributes 5 or more peak hour trips to a critical turn movement and causes the unsignalized intersection to operate below LOS E, or

- The proposed project contributes 5 or more peak hour trips to a critical turn movement and the unsignalized intersection currently operates at LOS F.

**Table 3-22 MEASURES OF SIGNIFICANT PROJECT IMPACTS/ALLOWABLE INCREASES ON CONGESTED ROADS & INTERSECTIONS**

| **Roadway Segments** | | | |
|---|---|---|---|
| | **2-Lane Roadway** | **4-Lane Roadway** | **6-Lane Roadway** |
| LOS E | 200 ADT | 400 ADT | 600 ADT |
| LOS F | 100 ADT | 200 ADT | 300 ADT |
| **Intersections** | | | |
| | **Signalized** | **Unsignalized** | |
| LOS E | Delay of 2 Seconds | 20 pk hour to Critical Movement | |
| LOS F | Delay of 1 Second, or 5 pk hour to Critical Movement | 5 pk hour to Critical Movement | |
| **Allowable Increases on CMP Roads/Intersections** | | | |
| | **Roadway Segments** | **Intersections** | |
| LOS E&F | 0.02 Increase to V/C 1 miles per hour speed | 2.0 seconds of delay | |

LOS = level of service; ADT = average daily traffic; V/C = volume to capacity ratio; pk hour = peak hour trips in the critical movement; CMP = Congestion Management Plan

### 3.5.3 Analysis of Project Effects and Determination as to Significance

Based on the significance criteria listed above in Section 3.5.2, the following discussion analyzes potential impacts of the proposed Project on the issue of traffic and transportation.

- ***Would the Project result in construction traffic that would significantly affect traffic on adjacent roadways?***

The proposed Highlands Ranch SPA and TM indicate that approximately 1,066,689 cubic yards of earthwork would be excavated during the grading process and that grading quantities would be balanced onsite. Because no import or export of earth materials is proposed, no off-site earth materials hauling would occur and no external haul traffic would be generated during grading. Short-term construction traffic would be limited to that necessary for utility and infrastructure installation, building construction, landscaping and associated improvements. Construction traffic would access the site via Pointe Parkway. Short-term construction traffic would not exceed the total number of daily trips (2,110 ADT) or the total number of peak hour trips (169 morning and 211 evening) projected for the proposed Project at buildout, as discussed below under the next discussion item. No significant short-term construction impacts would occur beyond those significant impacts discussed in the remainder of this Chapter.

- ***Would the Project conflict with Levels of Service thresholds identified in the Public Facility Element of the San Diego County General Plan?***

The Public Facility Element of the San Diego County General Plan (page 4-18), states that new development that would significantly impact congestion on roads operating at LOS E or F, either currently or as a result of a project, is required to either identify scheduled improvements that would increase the LOS to D or better, or provide appropriate mitigation for project related impacts. Appropriate mitigation can include a fair share contribution in the form of road improvements or a fair share contribution to an established program or project. CEQA allows the assessment of a fee as appropriate mitigation when it is linked to a specific mitigation program. The analysis below evaluates potential impacts of the proposed Project on traffic and transportation under three scenarios: Existing Plus Project, Near Term Cumulative, and Year 2030 Conditions.

The Project's proposed onsite circulation improvements were previously shown in *Figure 1-7, Circulation Plan*, and described in *Section 1.1.2, Project's Component Parts*. As described, the Project would extend Pointe Parkway into the Project site for access south to Jamacha Boulevard and would improve Montemar Drive for access north to Austin Drive. All onsite roadways are proposed to be private and the access points at Pointe Parkway and Montemar Drive are proposed to be gated.

*Table 3-23, Project Trip Generation*, summarizes Project related traffic volumes for average daily and peak hour traffic volumes. The proposed Project is anticipated to generate a total of 2,110 ADT at project buildout. Of this total, approximately 169 trips would be generated during the AM peak hour, and 211 would be generated during the PM peak hour.

Trip distribution was determined consistent with the Congestion Management Program (CMP) regulations, using a SANDAG Select Zone Assignment as presented in *Figure 3-13, Project Trip Distribution*. Resulting project traffic volumes on the surrounding roadway systems is shown on *Figure 3-14, Project Related Traffic*.

**Table 3-23 PROJECT TRIP GENERATION**

| Land Use | Density | ADT | AM Peak Hour Trips | | | PM Peak Hour Trips | | |
|---|---|---|---|---|---|---|---|---|
| | | | Total | In | Out | Total | In | Out |
| Single Family - Detached Units | 211 | 2,110 | 169 | 51 | 118 | 211 | 148 | 63 |

*SOURCE: Darnell & Associates, Inc., September 26, 2007*

### *A. Existing Plus Project Conditions*

Project traffic was added to the base existing traffic volumes on roadway segments and key intersections. The resulting distribution of the anticipated daily, morning and afternoon traffic volumes upon buildout of the proposed Project is shown in *Figure 3-15, Existing Plus Project Traffic*.

Existing plus Project roadway segment operation is summarized in Table 3-24, *Existing Plus Project Roadway Segment Level of Service Summary*. As shown on Table 3-24, the following three segments of Jamacha Blvd. fail in the existing condition: 1) from Omega to Jamacha Road (Maya); 2) from Jamacha Road (Maya) to Whitestone; and 3) from Whitestone to Pointe Parkway. Improvements to Jamacha Blvd. for all listed segments are under construction to improve the roadway from a two-lane to a four-lane facility (County Project #CG-4476/Log 89-19-105E). These improvements will result in acceptable levels of service and adequately mitigate the existing deficiency. Nonetheless, because the proposed Highlands Ranch project would contribute to existing deficiencies impacts are regarded as significant requiring mitigation (**Significant Direct and Cumulative Impact 3.5-A**).

The results of the intersection analysis for existing plus Project conditions are depicted in *Table 3-25, Existing Plus Project Intersection Level of Service Summary*. As shown in *Table 3-25*, all intersections operate at LOS D or better with or without the Project during both peak periods. The addition of Project traffic does not conflict with LOS standards at intersections; therefore, significant impacts would not occur.

### *B. Near Term Cumulative Conditions*

Roadway segments near the proposed Project were analyzed for existing plus other projects traffic. Table 3-26, *Near Term Cumulative Roadway Segment Level of Service Summary,* summarizes the roadway segment analysis. As shown on *Figure 3-16, Near Term Cumulative Traffic with Project*, and summarized on Table 3-26, the following three segments of Jamacha Blvd. operate at deficient levels of service: 1) from Omega to Jamacha Road (Maya); 2) from Jamacha Road (Maya) to Whitestone; 3) from Whitestone to Pointe Parkway (**Significant Direct and Cumulative Impact 3.5-A**). In addition, the following three roadway segments would operate at deficient levels of service in the near term cumulative condition: 1) Jamacha Blvd. from Pointe Parkway to Sweetwater Springs; 2) Jamacha Blvd. south of Campo Road to Calavo Drive; and 3) Sweetwater Springs from Del Rio to Austin (**Significant Cumulative Impact 3.5-B**). The proposed Highlands Ranch project would contribute traffic to the six roadway segments identified above, and impacts would be regarded as significant (**Significant Direct and Cumulative Impact 3.5-A and Significant Cumulative Impact 3.5-B**).

The results of the intersection analysis for near term cumulative conditions are depicted in Table 3-27, *Near Term Cumulative Intersection Level of Service Summary*. As shown in Table 3-27, the following intersections experience deficient levels of service with addition of other known projects: 1) Jamacha Blvd./Pointe Parkway; 2) Jamacha Blvd./Sweetwater Springs; and 3) Sweetwater Springs/State Route 94-Westbound. The Highlands Ranch project would contribute traffic to these intersections, resulting in a significant impact (**Significant Cumulative Impact 3.5-C**).

**Table 3-24 EXISTING PLUS PROJECT ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY**

| Roadway Segment | Maximum Capacity | Existing Conditions | | | Existing Plus Project | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ADT | LOS | V/C | ADT | LOS | V/C | Incr. in V/C | Proj. Traffic | Proj. Signif? |
| Jamacha Blvd: Grand/La Presa | 37,000 | 21,097 | B | 0.570 | 21,739 | B | 0.588 | 0.017 | 642 | No |
| Jamacha Blvd: La Presa/Omega | 37,000 | 19,340 | B | 0.523 | 19,982 | B | 0.540 | 0.017 | 642 | No |
| Jamacha Blvd: Omega/Jamacha | 16,200 | 18,079 | F | 1.116 | 18,721 | F | 1.156 | 0.040 | 642 | **Yes** |
| **(IMPROVED – 4C)** | **34,200** | **--** | **--** | **--** | **--** | **B** | **0.547** | -- | -- | -- |
| Jamacha Blvd: Jamacha/ Whitestone | 16,200 | 20,093 | F | 1.240 | 20,949 | F | 1.293 | 0.053 | 856 | **Yes** |
| **(IMPROVED – 4C)** | **34,200** | **--** | **--** | **--** | **--** | **B** | **0.613** | -- | -- | -- |
| Jamacha Blvd: Whitestone/ Pointe | 16,200 | 21,695 | F | 1.339 | 22,551 | F | 1.392 | 0.053 | 856 | **Yes** |
| **(IMPROVED – 4C)** | **34,200** | **--** | **--** | **--** | **--** | **B** | **0.659** | -- | -- | -- |
| Jamacha Blvd: Pointe/ Sweetwater | 37,000 | 25,527 | C | 0.690 | 25,741 | C | 0.696 | 0.006 | 214 | No |
| Jamacha Blvd: Sweetwater/ Calavo | 37,000 | 16,170 | B | 0.437 | 16,384 | B | 0.443 | 0.006 | 214 | No |
| Jamacha Blvd: south of Campo | 37,000 | 36,505 | E | 0.987 | 36,676 | E | 0.991 | 0.005 | 171 | No |
| Barcelona: north of Austin | 4,500 | 2,990 | <C | 0.664 | 3,204 | <C | 0.712 | 0.048 | 214 | No |
| Barcelona: south of Austin | 4,500 | 1,698 | <C | 0.377 | 1,698 | <C | 0.377 | 0.000 | 0 | No |
| Austin: Barcelona/Sweetwater | 16,200 | 4,481 | C | 0.277 | 5,337 | C | 0.329 | 0.053 | 856 | No |
| Austin: Montemar/Barcelona | 4,500 | 2,804 | <C | 0.623 | 3,875 | <C | 0.861 | 0.238 | 1070 | No |
| Sweetwater: Del Rio/Austin | 37,000 | 24,557 | B | 0.664 | 25,413 | C | 0.687 | 0.023 | 856 | No |
| Sweetwater: Austin/Jamacha Blvd | 37,000 | 15,055 | B | 0.407 | 15,055 | B | 0.407 | 0.000 | 0 | No |
| Montemar: Ivy/Austin | 4,500 | 2,805 | <C | 0.623 | 3,875 | <C | 0.861 | 0.238 | 1,070 | No |

LOS = Level of Service; ADT = Average Daily Traffic; <C = better than LOS C; 4C = 4 lane collector; 6P = 6 lane prime
n/a = not applicable (LOS is not applicable to non-circulation element roadways)
Proj. Signif? = Project significance based on County Standards (Yes or No)
Maximum Capacity per County of San Diego Public Road Standards
*SOURCE: Darnell & Associates, Inc., September 26, 2007*

**Table 3-25 EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE SUMMARY**

| Intersection | Existing Conditions | | Existing Plus Project | | | | |
|---|---|---|---|---|---|---|---|
| | Delay sec/veh | LOS | Delay sec/veh | LOS | Δ Delay | Max Critical Movement | Proj. Signif? |
| **AM PEAK HOUR** | | | | | | | |
| Jamacha Blvd/Grand | 30.2 | C | 31.5 | C | 1.3 | 24 | No |
| Jamacha Blvd/La Presa | 22.1 | C | 22.5 | C | 0.4 | 36 | No |
| Jamacha Blvd /Omega | 17.1 | C | 17.8 | C | 0.7 | 36 | No |
| Jamacha Blvd /Jamacha Rd (Maya) | 22.1 | C | 25.5 | C | 3.4 | 36 | No |
| Jamacha Blvd /Whitestone | 17.8 | B | 20.8 | B | 3.0 | 48 | No |
| Jamacha Blvd /Pointe Parkway | 31.1 | C | 39.7 | D | 8.6 | 21 | No |
| Jamacha Blvd /Sweetwater Springs | 25.1 | C | 25.1 | C | 0.0 | 12 | No |
| Jamacha Blvd /Doubletree | 20.2 | C | 20.3 | C | 0.1 | 10 | No |
| Jamacha Blvd /Campo (SP94) | 24.3 | C | 24.5 | C | 0.2 | 12 | No |
| Sweetwater Springs/Austin | 29.0 | C | 29.7 | C | 0.7 | 48 | No |
| Sweetwater Springs/Del Rio | 17.8 | B | 18.2 | B | 0.4 | 48 | No |
| Sweetwater Springs/SR94-EB | 30.5 | C | 33.0 | C | 2.5 | 36 | No |
| Sweetwater Springs/SR94-WB | 35.3 | D | 39.4 | D | 4.1 | 36 | No |
| Aqua Dulce/SR94-EB Off | 12.4 | B | 12.4 | B | 0.0 | 5 | No |
| Austin/Barcelona | 8.0 | A | 8.4 | A | 0.4 | 48 | No |
| **PM PEAK HOUR** | | | | | | | |
| Jamacha Blvd /Grand | 24.3 | C | 24.5 | C | 0.2 | 30 | No |
| Jamacha Blvd /La Presa | 21.1 | C | 21.4 | C | 0.3 | 45 | No |
| Jamacha Blvd /Omega | 13.9 | B | 14.2 | B | 0.3 | 45 | No |
| Jamacha Blvd /Jamacha Rd (Maya) | 11.6 | B | 12.1 | B | 0.5 | 45 | No |
| Jamacha Blvd /Whitestone | 11.1 | B | 11.6 | B | 0.5 | 60 | No |
| Jamacha Blvd /Pointe Parkway | 29.0 | C | 30.6 | C | 1.6 | 60 | No |
| Jamacha Blvd /Sweetwater Springs | 24.8 | C | 24.9 | C | 0.1 | 15 | No |
| Jamacha Blvd /Doubletree | 21.5 | C | 21.6 | C | 0.1 | 12 | No |
| Jamacha Blvd /Campo (SP94) | 45.2 | D | 46.2 | D | 1.0 | 23 | No |
| Sweetwater Springs/Austin | 30.0 | C | 31.3 | C | 1.3 | 26 | No |
| Sweetwater Springs/Del Rio | 18.2 | B | 18.8 | B | 0.6 | 60 | No |
| Sweetwater Springs/SR94-EB | 19.1 | B | 19.2 | B | 0.1 | 19 | No |
| Sweetwater Springs/SR94-WB | 38.4 | D | 42.4 | D | 4.0 | 19 | No |
| Aqua Dulce/SR94-EB Off | 13.1 | B | 13.4 | B | 0.3 | 5 | No |
| Austin/Barcelona | 8.9 | A | 9.6 | A | 0.7 | 60 | No |

Delay is measured in seconds per vehicle; Δ Delay = change in delay; LOS = level of service;
Max. Critical Movement = maximum vehicles in single critical movement
Delay and LOS calculated using HCS 4.1d
Proj. Signif? = Project significance based on County thresholds (yes or no)
*SOURCE: Darnell & Associates; September 26, 2007*

## Table 3-26 NEAR TERM CUMULATIVE ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY

| Segment | Maximum Capacity | Existing (A) | | | Near Term (B) | | | Near Term Plus Project (C) | | | Cuml. Contribution (C)-(A) | | Project Contribution (C)-(B) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ADT | V/C | LOS | ADT | V/C | LOS | ADT | V/C | LOS | Incr. in V/C | Cuml Impact? | Incr. to V/C | Cuml. Signif? |
| Jamacha Blvd: Grand/La Presa | 37000 | 21097 | 0.570 | B | 30372 | 0.821 | D | 31014 | 0.838 | D | 0.268 | No | 0.017 | No |
| Jamacha Blvd: La Presa/Omega | 37000 | 19340 | 0.523 | B | 28510 | 0.771 | C | 29152 | 0.788 | C | 0.265 | No | 0.017 | No |
| Jamacha Blvd: Omega/Jamacha Rd | 16200 | 18079 | 1.116 | F | 27173 | 1.677 | F | 27815 | 1.717 | F | 0.601 | Yes | 0.040 | **Yes** |
| **(IMPROVED - 4C)** | **34200** | -- | -- | -- | -- | -- | -- | -- | **0.813** | **D** | -- | -- | -- | -- |
| Jamacha Blvd: Jamacha Rd/ Whitestone | 16200 | 20093 | 1.240 | F | 29308 | 1.809 | F | 30164 | 1.862 | F | 0.622 | Yes | 0.053 | **Yes** |
| **(IMPROVED - 4C)** | **34200** | -- | -- | -- | -- | -- | -- | -- | **0.882** | **D** | -- | -- | -- | -- |
| Jamacha Blvd: Whitestone/Pointe | 16200 | 21695 | 1.339 | F | 36572 | 2.258 | F | 37428 | 2.310 | F | 0.971 | Yes | 0.053 | **Yes** |
| Jamacha Blvd: Pointe/Sweetwater | 37000 | 25527 | 0.690 | C | 43417 | 1.173 | F | 43631 | 1.179 | F | 0.489 | Yes | 0.006 | **Yes** |
| Jamacha Blvd: Sweetwater/Calavo | 37000 | 16170 | 0.437 | B | 21587 | 0.583 | B | 21801 | 0.589 | B | 0.152 | No | 0.006 | No |
| Jamacha Blvd: south of Campo | 37000 | 36505 | 0.987 | E | 43143 | 1.166 | F | 43314 | 1.171 | F | 0.184 | Yes | 0.0005 | **Yes** |
| Barcelona: north of Austin | 4500 | 2990 | 0.664 | <C | 3301 | 0.734 | <C | 3515 | 0.781 | <C | 0.117 | No | 0.048 | No |
| Barcelona: south of Austin | 4500 | 1698 | 0.377 | <C | 1800 | 0.400 | <C | 1800 | 0.400 | <C | 0.023 | No | 0.000 | No |
| Austin: Barcelona/Sweetwater | 16200 | 4481 | 0.277 | C | 5342 | 0.330 | C | 6198 | 0.383 | C | 0.106 | No | 0.053 | No |
| Austin: Montemar/Barcelona | 4500 | 2804 | 0.623 | <C | 2972 | 0.660 | <C | 4042 | 0.898 | <C | 0.275 | No | 0.238 | No |
| Sweetwater: Del Rio/Austin | 37000 | 24557 | 0.664 | B | 37737 | 1.020 | F | 38593 | 1.043 | F | 0.379 | Yes | 0.023 | **Yes** |
| Sweetwater: Austin/Jamacha | 37000 | 15055 | 0.407 | B | 27665 | 0.748 | C | 27665 | 0.748 | C | 0.341 | No | 0.000 | No |
| Montemar: Ivy/Austin | 4500 | 2805 | 0.623 | <C | 2972 | 0.660 | <C | 4042 | 0.898 | <C | 0.275 | No | 0.238 | No |

LOS=level of service; ADT=Average daily traffic; <C=better than LOS C; 4C=4 lane collector, 6P=6 lane prime
n/a = not applicable (LOS is not applicable to non-circulation element roadways)
Cuml. Signif? = Cumulative significance based on County Standards (Yes or No);
Proj % = project percentage of cumulative (existing volumes excluded)
Maximum Capacity per County of San Diego Public Road Standards
*SOURCE: Darnell & Associates, Inc., September 26, 2007*

## Table 3-27 NEAR TERM CUMULATIVE INTERSECTION LEVEL OF SERVICE SUMMARY

| Intersection | Existing Condition | | Near Term | | Near Term Plus Project | | Cuml. Contribution | | Project Contribution | |
|---|---|---|---|---|---|---|---|---|---|---|
| | (A) | | (B) | | (C) | | (C)-(A) | | (C)-(B) | |
| | Delay sec/veh | LOS | Delay sec/veh | LOS | Delay sec/veh | LOS | Δ Delay | Cuml. Impact? | Δ Delay | Cuml. Signif? |
| Jamacha Blvd/Grand | 30.2 | C | 32.8 | C | 35.2 | D | 5.0 | No | 2.4 | No |
| Jamacha Blvd /La Presa | 22.1 | C | 30.0 | C | 31.7 | C | 9.6 | No | 1.7 | No |
| Jamacha Blvd /Omega | 17.1 | C | 23.7 | C | 24.8 | C | 7.7 | No | 1.1 | No |
| Jamacha Blvd /Jamacha Rd (Maya) | 22.1 | C | 37.6 | D | 43.6 | D | 21.5 | No | 6.0 | No |
| Jamacha Blvd /Whitestone | 17.8 | B | 44.1 | D | 52.3 | D | 34.5 | No | 8.2 | No |
| Jamacha Blvd /Pointe Pkwy **(IMPROVED)** | 31.1 | C | 318.0 | F | 335.9 **47.1** | F **D** | 304.8 | Yes | 17.9 | **Yes** |
| Jamacha Blvd /Sweetwater Sp. **(IMPROVED)** | 25.1 | C | 89.9 | F | 89.9 **33.5** | F **C** | 64.8 | Yes | 0.0 | **Yes** |
| Jamacha Blvd /Doubletree | 20.2 | C | 22.9 | C | 23.0 | C | 2.8 | No | 0.1 | No |
| Jamacha Blvd /Campo (SR94) | 24.3 | C | 28.9 | C | 29.7 | C | 5.4 | No | 0.8 | No |
| Sweetwater Sp/Austin | 29.0 | C | 38.0 | D | 42.2 | D | 13.2 | No | 4.2 | No |
| Sweetwater Sp/Del Rio | 17.8 | B | 34.0 | C | 37.7 | D | 19.9 | No | 3.7 | No |
| Sweetwater Sp/SR94-EB | 30.5 | C | 42.5 | D | 47.6 | D | 17.1 | No | 5.1 | No |
| Sweetwater Sp/SR94-WB **(IMPROVED)** | 35.3 | D | 99.4 | F | 108.1 **51.6** | F **D** | 72.8 | Yes | 8.7 | **Yes** |
| Agua Dulce/SR94-EB Off | 12.4 | B | 16.4 | C | 16.6 | C | 4.2 | No | 0.2 | No |
| Austin/Barcelona | 8.0 | A | 8.3 | A | 8.5 | A | 0.5 | No | 0.2 | No |
| **PM PEAK HOUR** | | | | | | | | | | |
| Jamacha Blvd /Grand | 24.3 | C | 35.2 | D | 36.7 | D | 12.4 | No | 1.5 | No |
| Jamacha Blvd /La Presa | 21.1 | C | 31.1 | C | 32.8 | C | 11.7 | No | 1.7 | No |
| Jamacha Blvd /Omega | 13.9 | B | 26.3 | D | 26.9 | D | 13.0 | No | 0.6 | No |
| Jamacha Blvd /Jamacha Rd (Maya) | 11.6 | B | 45.3 | D | 49.2 | D | 37.6 | No | 3.9 | No |
| Jamacha Blvd /Whitestone | 11.1 | B | 49.8 | D | 53.1 | D | 42.0 | No | 3.3 | No |
| Jamacha Blvd /Pointe Pkwy **(IMPROVED)** | 29.0 | C | 215.9 | F | 229.2 **53.0** | F **D** | 200.2 | Yes | 13.3 | **Yes** |
| Jamacha Blvd /Sweetwater Sp. **(IMPROVED)** | 24.8 | C | 154.8 | F | 154.8 **46.6** | F **D** | 130.0 | Yes | 0.0 | **Yes** |
| Jamacha Blvd /Doubletree | 21.5 | C | 24.5 | C | 24.6 | C | 3.1 | No | 0.1 | No |
| Jamacha Blvd /Campo (SR94) | 45.2 | D | 53.1 | D | 54.3 | D | 9.1 | No | 1.2 | No |
| Sweetwater Sp/Austin | 30.0 | C | 50.1 | D | 53.6 | D | 23.6 | No | 3.5 | No |
| Sweetwater Sp/Del Rio | 18.2 | B | 39.1 | D | 45.0 | D | 26.8 | No | 5.9 | No |
| Sweetwater Sp/SR94-EB | 19.1 | B | 25.8 | C | 27.1 | C | 8.0 | No | 1.3 | No |
| Sweetwater Sp/SR94-WB **(IMPROVED)** | 38.4 | D | 123.2 | F | 130.4 **53.4** | F **D** | 92.0 | Yes | 7.2 | **Yes** |
| Agua Dulce/SR94-EB Off | 13.1 | B | 16.1 | C | 16.6 | C | 3.5 | No | 0.5 | No |
| Austin/Barcelona | 8.9 | A | 9.1 | A | 10.0 | B | 1.1 | No | 0.9 | No |

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service;
Delay and LOS calculated using HCS 4.1d Project significance based on County thresholds;
Proj Percent = project contribution to cumulative (existing volumes excluded)
*SOURCE: Darnell & Associates; September 26, 2007.*

### *C. Year 2030 Conditions*

*Table 3-28, Future 2030 Roadway Segment Level of Service Summary*, summarizes the daily capacity analysis in year 2030. As shown on Figure 3-17, *Year 2030 Traffic,* and summarized on Table 3-28, the segment of Sweetwater Springs from Del Rio to Austin demonstrates LOS E conditions. This segment of Sweetwater Springs is currently constructed to its ultimate General Plan classification. This section fails as a four-lane facility by Year 2030 conditions will operate at a LOS "E" with or without development of the proposed Project. However, the intersection analysis demonstrates that peak hour performance operates acceptably along this segment. Therefore, impacts to Sweetwater Springs Boulevard between Del Rio and Austin would not be regarded as significant in the long-term.

**Table 3-28 FUTURE 2030 ROADWAY SEGMENT LEVEL OF SERVICE SUMMARY**

| Segment | Maximum Capacity | Year 2030 | | | Year 2030 With Project | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ADT | LOS | V/C | ADT | LOS | V/C | Incr. in V/C | Proj. Traffic | Proj. Signif? |
| Jamacha Blvd: Grand/La Presa | 37000 | 26358 | C | 0.712 | 27000 | C | 0.730 | 0.017 | 642 | No |
| Jamacha Blvd: La Presa/Omega | 37000 | 25358 | C | 0.685 | 26000 | C | 0.703 | 0.017 | 642 | No |
| Jamacha Blvd: Omega/Jamacha | 37000 | 25358 | C | 0.685 | 26000 | C | 0.703 | 0.017 | 642 | No |
| Jamacha Blvd: Jamacha Rd/Whitestone | 37000 | 22144 | B | 0.598 | 23000 | B | 0.622 | 0.023 | 856 | No |
| Jamacha Blvd: Whitestone/ Pointe | 37000 | 24144 | B | 0.653 | 25000 | C | 0.676 | 0.023 | 856 | No |
| Jamacha Blvd: Pointe/ Sweetwater | 37000 | 29786 | C | 0.805 | 30000 | D | 0.811 | 0.006 | 214 | No |
| Jamacha Blvd: Sweetwater/ Calavo | 37000 | 13786 | A | 0.373 | 14000 | A | 0.378 | 0.006 | 214 | No |
| Jamacha Blvd: south of Campo | 37000 | 20829 | B | 0.563 | 21000 | B | 0.568 | 0.005 | 171 | No |
| Barcelona: north of Austin | 16200 | 7786 | D | 0.481 | 8000 | D | 0.494 | 0.013 | 214 | No |
| Barcelona: south of Austin | 4500 | 4000 | <C | 0.889 | 4000 | <C | 0.889 | 0.000 | 0 | No |
| Austin: Barcelona/Sweetwater | 16200 | 7144 | C | 0.441 | 8000 | D | 0.494 | 0.053 | 856 | No |
| Austin: Montemar/Barcelona | 4500 | 2930 | <C | 0.651 | 4000 | <C | 0.889 | 0.238 | 1070 | No |
| Sweetwater: Del Rio/Austin | 37000 | 35144 | E | 0.950 | 36000 | E | 0.973 | 0.023 | 856 | No |
| Sweetwater: Austin/Jamacha | 37000 | 32000 | D | 0.865 | 32000 | D | 0.865 | 0.000 | 0 | No |
| Montemar: Ivy/Austin | 4500 | 2000 | <C | 0.444 | 3070 | <C | 0.682 | 0.238 | 1070 | No |
| Ivy St: Project/Montemar | 4500 | 500 | <C | 0.111 | 1570 | <C | 0.349 | 0.238 | 1070 | No |

LOS=level of service; ADT=Average daily traffic; <C=better than LOS C
n/a = not applicable (LOS is not applicable to non-circulation element roadways)
Proj. Signif? = Project significance based on County Standards (Yes or No)
Maximum Capacity per County of San Diego Public Road Standards
*SOURCE: Darnell & Associates; September 26, 2007*

- ***Would the Project conflict with the criteria and/or thresholds established for large scale projects in the San Diego Region's Congestion management Program?***

Based on the approval of Proposition 111 in 1990, regulations require the preparation, implementation and annual updating of a Congestion Management Program (CMP) in each of

California's urbanized counties. In 1991, San Diego County adopted their initial CMP statutes. One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants and traffic consultants through a transportation impact report usually conducted as part of the CEQA project review process. Authority for local land use decisions including project approvals and any required mitigation remains the responsibility of local jurisdictions.

The criteria for which a project is subject to the regulations as set forth in the CMP are determined by the trip generation potential for the project. Currently, the threshold is 2,400 average daily trips (ADT) or 200 peak hour trips. The proposed Highlands Ranch project would generate approximately 2,110 daily trips with 169 morning peak hour and 211 evening peak hour trips and is therefore subject to CMP analyses.

Currently, SANDAG is conducting the State Route 54 Corridor Study to determine the ultimate alignment and configuration for SR-54 and its intersections. This report is recently underway, with review priorities to the County of San Diego and Caltrans. Alternatives were developed using "mobility network" and "revenue constrained" analysis, with a preferred alternative which included a six lane expressway. To analyze future traffic use, the traffic technical report prepared for Highlands Ranch (see Appendix B of this SEIR) adopted the existing SANDAG configuration of a six lane expressway, and analyzed the published daily traffic volumes for the year 2030 Regional Transportation Plan, which includes the planned circulation element and land use densities from the current General Plan.

Impacts of the proposed Project on the regional circulation system are disclosed above under the previous discussion item. As disclosed, the proposed Project would result in significant impacts to the following roadway segments and intersections:

- ***Existing Plus Project Conditions – Roadway Segments:***
  - Jamacha Blvd. from Omega to Jamacha Road (Maya);
  - Jamacha Blvd. from Jamacha Road (Maya) to Whitestone; and
  - Jamacha Blvd. from Whitestone to Pointe Parkway

- ***Near Term Cumulative Conditions – Roadway Segments:***
  - Jamacha Blvd. from Omega to Jamacha Road (Maya);
  - Jamacha Blvd. from Jamacha Road (Maya) to Whitestone
  - Jamacha Blvd. from Whitestone to Pointe Parkway;
  - Jamacha Blvd. from Pointe Parkway to Sweetwater Springs;
  - Jamacha Blvd. south of Campo Road to Calavo Drive
  - Sweetwater Springs from Del Rio to Austin

- ***Near Term Cumulative Conditions – Intersections:***
  - Jamacha Blvd./Pointe Parkway;
  - Jamacha Blvd./Sweetwater Springs;
  - Sweetwater Springs/State Route 94-Westbound

- ***Would the Project substantially increase hazards due to a design feature (sharp curves or dangerous intersections) or incompatible uses (farm equipment)?***

No unsafe design features are proposed as part of the Project. Project traffic would enter and exit the site via the extension of Pointe Parkway from the southeast and via Montemar Drive from the north. Pointe Parkway is under construction as part of The Pointe San Diego Specific Plan project and has been constructed in accordance with County roadway standards. Proposed off-site improvements to Montemar Drive would be constructed in accordance with County roadway standards. All onsite roadways proposed in the Highlands Ranch development area would be constructed as private streets in accordance with County Standards for Private Streets.

Project generated traffic is anticipated to primarily consist of light duty passenger vehicles (cars and trucks) with a small percentage of Project traffic being motorcycles, and medium and heavy duty trucks. The character of vehicular traffic would be very typical of any suburban development project. The project site is surrounded on three sides by residential development which generates a similar mix of vehicular traffic as compared to the proposed Project. No incompatible uses would occur in the area that could increase local roadway hazards. Therefore, no impacts have been identified related to hazards or incompatible uses.

- ***Would the Project result in inadequate access for emergency vehicles?***

No significant access issues related to emergency vehicles have been identified in relation to the proposed Project. The Highlands Ranch project proposes one primary access point and one secondary access point. The main project entrance would be a continuation of Pointe Parkway which is currently under construction as part of the Pointe San Diego private road system to the southeast. At the point of connection with Pointe Parkway at the eastern Project boundary, the roadway grade would be approximately 1%. The entry is designed with an electric controlled access gate with adequate stacking distance for approximately 8 vehicles. Proposed roadway width is 42 feet of pavement. The gate would be equipped with an override system for emergency vehicle access.

A second point of access is proposed at the northwest property boundary which would serve as an access route to Montemar Drive and Austin Drive. The off-site connection would be constructed with 28 feet of pavement and a maximum grade of 15%. The entry is designed with an electric controlled access gate with an override system for emergency vehicle access.

- ***Would the Project cause in a change of traffic patterns that result in substantial safety risks?***

As previously stated, all onsite roadways proposed in the Highlands Ranch development area would be constructed as private streets in accordance with County Standards for Private Streets. No unsafe design features or physical configurations of access roads are proposed. Project traffic would enter and exit the development area via Pointe Parkway to the southeast and via Montemar Drive to the northwest. Pointe Parkway is under construction as part of The Pointe San Diego Specific Plan project and has sufficient design capacity to accommodate traffic generated by Highlands Ranch. Off-site, Pointe Parkway is constructed with maximum grades of 15%. In addition, proposed off-site improvements to Montemar Drive would provide sufficient design capacity to accommodate traffic generated by the Project. The addition of Project traffic to Pointe Parkway, Montemar Drive, and other roadways shown on *Figure 3-13* and *Figure 3-14* would not result in a percentage or magnitude

of traffic that would affect safety of the roadways. No unsafe curves, slopes, walls, landscaping or other barriers exist or are planned by the Project that would result in vehicle conflict. Distribution of the Project's daily traffic to Pointe Parkway and Montemar Drive would avoid Project traffic from being directly distributed onto other local roadways in the Spring Valley community with steep gradients, such as Grand Avenue, San Miguel Avenue, and San Bernardino Avenue. No adverse impacts are identified.

- ***Would the Project result in inadequate parking capacity based on parking requirement codes?***

No parking capacity impacts have been identified. The Project would be required to comply with County of San Diego Parking Ordinance standards and would provide adequate parking for residents and patrons of the onsite private park facility. No deviations from parking standards have been requested, and no parking capacity impacts have been identified.

- ***Would the Project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?***

As shown previously in *Table 3-20, Existing Conditions Roadway Segment Summary*, all street segments in the Project vicinity operate at an acceptable LOS with the exception of:

Jamacha Blvd. from Omega to Jamacha Road (Maya) (LOS F)
Jamacha Blvd. from Jamacha (Maya) Road to Whitestone Road (LOS F)
Jamacha Blvd. from Whitestone Road to Pointe Parkway (LOS F)
Jamacha Blvd. south of Campo Road to Calavo Drive (LOS E)

Improvements to Jamacha Blvd. for all listed segments except south of Campo Road to Calavo Drive are under construction to improve the roadway from a two-lane to a four-lane facility (County Project #CG-4476/Log 89-19-105E). These improvements will result in acceptable levels of service and adequately mitigating the existing deficiency. South of Campo Road, Jamacha Blvd. fails in the existing condition as a four-lane facility. The Highlands Ranch project does not meet the 400 ADT threshold for LOS E roadway and therefore is not considered to have a significant direct impact on this segment. Improvements for this segment are not listed on the County's current improvement projects.

The proposed Highlands Ranch project would generate 2,110 ADT, with 169 ADT occurring in the AM peak hour and 211 ADT occurring in the PM peak hour. Impacts of the proposed Project on the regional circulation system are disclosed above and conclude that the Project would significantly impact the following roadway segments and intersections:

Jamacha Blvd. from Omega to Jamacha Road (Maya), from Jamacha Road (Maya) to Whitestone, and from Whitestone to Pointe Parkway: The Project would significantly impact these three roadway segments under Existing Plus Project and Near Term Cumulative Conditions. These segments fail in the existing condition as two lane facilities and operate at a LOS F, with or without the development Highlands Ranch. Although improvements to Jamacha Blvd. for these segments are under construction to improve the roadway from a two-lane to a four-lane facility (County Project #CG-4476/Log 89-19-105E), because the

proposed Project would contribute to the LOS deficiency, the impact to these three segments is regarded as significant.

Jamacha Blvd. from Pointe Parkway to Sweetwater Springs: The Project would significantly impact this roadway segment under Near Term Cumulative Conditions. This segment fails in the existing condition as a two lane facility and operates at a LOS F, with or without the development Highlands Ranch. Although improvements to this segment of Jamacha Blvd. are under construction to improve the roadway from a two-lane to a four-lane facility (County Project #CG-4476/Log 89-19-105E), because the proposed Project would contribute to the LOS deficiency, the impact to this segment is regarded as significant.

Jamacha Blvd. south of Campo Road to Calavo Drive: The Project would significantly impact this roadway segment under Near Term Cumulative Conditions. This section fails in the cumulative condition as a four-lane facility and currently operates at a LOS E. With the development of cumulative projects this segment is projected to operate at a LOS F, and would remain at a LOS F with or without the development of Highlands Ranch. Because the proposed Project would contribute to the LOS deficiency, the cumulative impact to this segment is regarded as significant.

Sweetwater Springs from Del Rio to Austin: The Project would significantly impact this roadway segment under Near Term Cumulative Conditions. This section fails in the cumulative condition as a four-lane facility and currently operates at a LOS B. With the development of cumulative projects this segment is projected to operated at a LOS F, and would remain at LOS F with or without the development of Highlands Ranch. Because the proposed Project would contribute to the LOS deficiency, the cumulative impact to this segment is regarded as significant.

Jamacha Blvd./Pointe Parkway Intersection: The Project would significantly impact this intersection under Near Term Cumulative Conditions. This intersection fails with the addition of cumulative projects, including the proposed Project, and is projected to operate at a LOS F. Because the proposed Project would contribute to the LOS deficiency, the cumulative impact is regarded as significant.

Jamacha Blvd./Sweetwater Springs and Sweetwater Springs/State Route 94-Westbound Intersections: The Project would significantly impact these intersections under Near Term Cumulative Conditions. With the development of cumulative projects these intersections are projected to operate at a LOS F, and would remain at a LOS F level with or without the development of Highlands Ranch. Because the proposed Project would contribute to the LOS deficiency, the cumulative impact to these intersections is regarded as significant.

### 3.5.4 Cumulative Impact Analysis

Cumulative impacts have been disclosed above. Cumulative projects identified in Table 1-4 were divided into traffic analysis zones based on location and traffic was generated and distributed based on each land use density and zone proximity. Cumulative traffic zones and related trip generation results are documented in the traffic technical report included as Appendix B to this SEIR. In addition, a growth rate of 2% per year for three (3) years was added to the base volume to account for projects which may be processed after the preparation date of the traffic technical report. With the

addition of Project traffic in the Near Term Cumulative and Year 2030 Conditions, the Highlands Ranch project would result in significant cumulative impacts to the following intersections and roadway segments:

- ***Near Term Cumulative Conditions – Roadway Segments:***
  - Jamacha Blvd. from Omega to Jamacha Road (Maya);
  - Jamacha Blvd. from Jamacha Road (Maya) to Whitestone
  - Jamacha Blvd. from Whitestone to Pointe Parkway;
  - Jamacha Blvd. from Pointe Parkway to Sweetwater Springs;
  - Jamacha Blvd. south of Campo Road to Calavo Drive
  - Sweetwater Springs from Del Rio to Austin

- ***Near Term Cumulative Conditions – Intersections:***
  - Jamacha Blvd./Pointe Parkway;
  - Jamacha Blvd./Sweetwater Springs;
  - Sweetwater Springs/State Route 94-Westbound

### 3.5.5 Mitigation Measures

***Significant Direct and Cumulative Impact 3.5-A****: Under Existing Plus Project Conditions and Near Term Cumulative Conditions, the proposed Project would contribute traffic to three Jamacha Blvd. roadway segments that are operating at unacceptable levels of service: 1) Omega to Jamacha Road (Maya); 2) Jamacha Road (Maya) to Whitestone; and 3) Whitestone to Pointe Parkway.*

3.5-A(1): Improvements to Jamacha Blvd. from Omega to Pointe Parkway are under construction to widen the roadway to a four-lane roadway segment within a Prime Arterial roadbed (County Project #CG-4476/Log 89-19-105E). Prior to issuance of occupancy permits, planned improvements to Jamacha Boulevard (County Project #CG-4476/Log 89-19-105E) shall be completed.

3.5-A(2): At the time of building permit issuance, the required Transportation Impact Fee (TIF) for Spring Valley as set forth in County Ordinance, Section 77.208 shall be paid. Payment of the TIF adequately mitigates the Project's cumulative impacts to the following segments of Jamacha Blvd.: 1) from Jamacha Road (Maya) to Whitestone; and 2) from Whitestone to Pointe Parkway.

***Significant Cumulative Impact 3.5-B****: Under Near Term Cumulative Conditions, the proposed Project would contribute traffic to three roadway segments that are operating or are projected to operate at unacceptable levels of service: 1) Jamacha Blvd. from Pointe Parkway to Sweetwater Springs; 2) Jamacha Blvd. from Campo Road to Calavo Drive; and 3) Sweetwater Springs from Del Rio to Austin.*

3.5-B: At the time of building permit issuance, the required Transportation Impact Fee (TIF) for Spring Valley as set forth in County Ordinance, Section 77.208 shall be paid. Payment of the TIF adequately mitigates the Project's cumulative impacts to these roadway segments.

***Significant Cumulative Impact 3.5-C:*** *Under Near Term Cumulative Conditions, the proposed Project would contribute traffic to the following three intersections which are projected to operate at unacceptable levels of service: 1) Jamacha Blvd./Pointe Parkway; 2) Jamacha Blvd./Sweetwater Springs; and 3) Sweetwater Springs/State Route 94-Westbound.*

3.5-C(1): At the time of building permit issuance, the required Transportation Impact Fee (TIF) for Spring Valley as set forth in County Ordinance, Section 77.208 shall be paid. Payment of the TIF adequately mitigates the Project's cumulative impacts to the intersection of Jamacha Blvd. /Sweetwater Springs.

3.5-C(2): For the intersection of Jamacha Blvd./Pointe Parkway, prior to issuance of the first building permit, the Project shall ensure that the following improvements are included as part of The Pointe Development ultimate configuration, or the Project will be required to pay a fair share of additional improvements not included in the current design plan. These improvements listed below shall be constructed prior to issuance of the Project's first occupancy permit.

- Eastbound: (2) lefts, (2) through, (1) right;
- Westbound: (1) left, (2) through, (1) right;
- Northbound: (1) left, (1) through), (1) right;
- Southbound: (2) left, (1) through, (1) right.

3.5-C(3): The Project shall contribute to the County's traffic signal fee program for modification of the traffic signal at Jamacha Blvd./Pointe Parkway.

3.5-C(4): In the event that prior to issuance of building permits improvements to the intersection of Sweetwater Springs/State Route 94-Westbound are not identified and fully funded by the TIF program, then the applicant shall assure the construction of an additional dedicated left turn lane. The Project's obligation may be met through a fair-share contribution toward the improvement (if constructed by others), or through direct construction of this improvement with reimbursement by others.

3.5-C(5): In the event that prior of the issuance of building permits the TIF program has been updated to include funding for a dedicated left turn lane at the intersection of Sweetwater Springs/State Route 94-Westbound, the required Transportation Impact Fee (TIF) for Spring Valley as set forth in County Ordinance, Section 77.208 shall be paid. Payment of the TIF adequately mitigates the Project's cumulative impacts to this intersection.

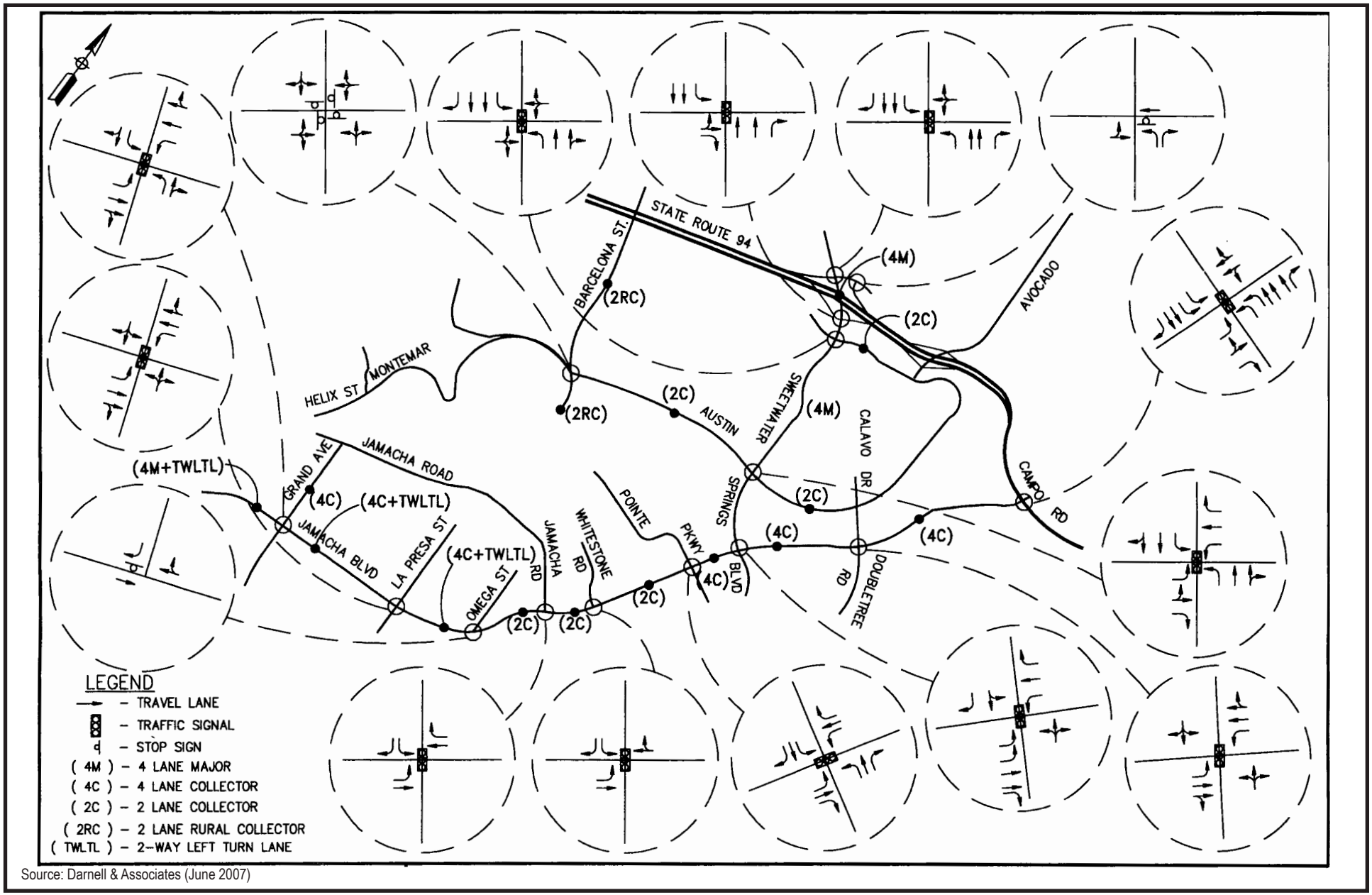
### 3.5.6 Conclusions

With implementation of Mitigation Measure No. 3.5-A(1), the Project's direct traffic impacts would be reduced to below a level of significance.

With implementation of Mitigation Measure 3.5-C(4), the Project's cumulative impacts to the intersection of Sweetwater Springs/State Route 94-Westbound would be reduced to a level below significant.

The County of San Diego adopted a Transportation Impact Fee (TIF) program to fund improvements to roadways necessary to mitigate potential cumulative impacts caused by traffic from future development. This program is based on a summary of projections method contained in an adopted planning document, as referenced in the State CEQA Guidelines Section 15130 (b)(1)(B), which evaluates regional or area wide conditions contributing to cumulative transportation impacts. Based on SANDAG regional growth and land use forecasts, the SANDAG Regional Transportation Model was utilized to analyze projected build-out (Year 2030) development conditions on the existing circulation element roadway network throughout the unincorporated area of the County. Based on the results of the traffic modeling, funding necessary to construct transportation facilities that will mitigate cumulate impacts from new development was identified. Existing roadway deficiencies will be corrected through improvement projects funded by other public funding sources, such as TransNet, gas tax, and grants. Potential cumulative impacts to the region's freeways have been addressed in SANDAG's Regional Transportation Plan (RTP). This plan, which considers freeway build-out over the next 30 years, will use funds from TransNet, state and federal funding to improve freeways to projected level of service objectives in the RTP.

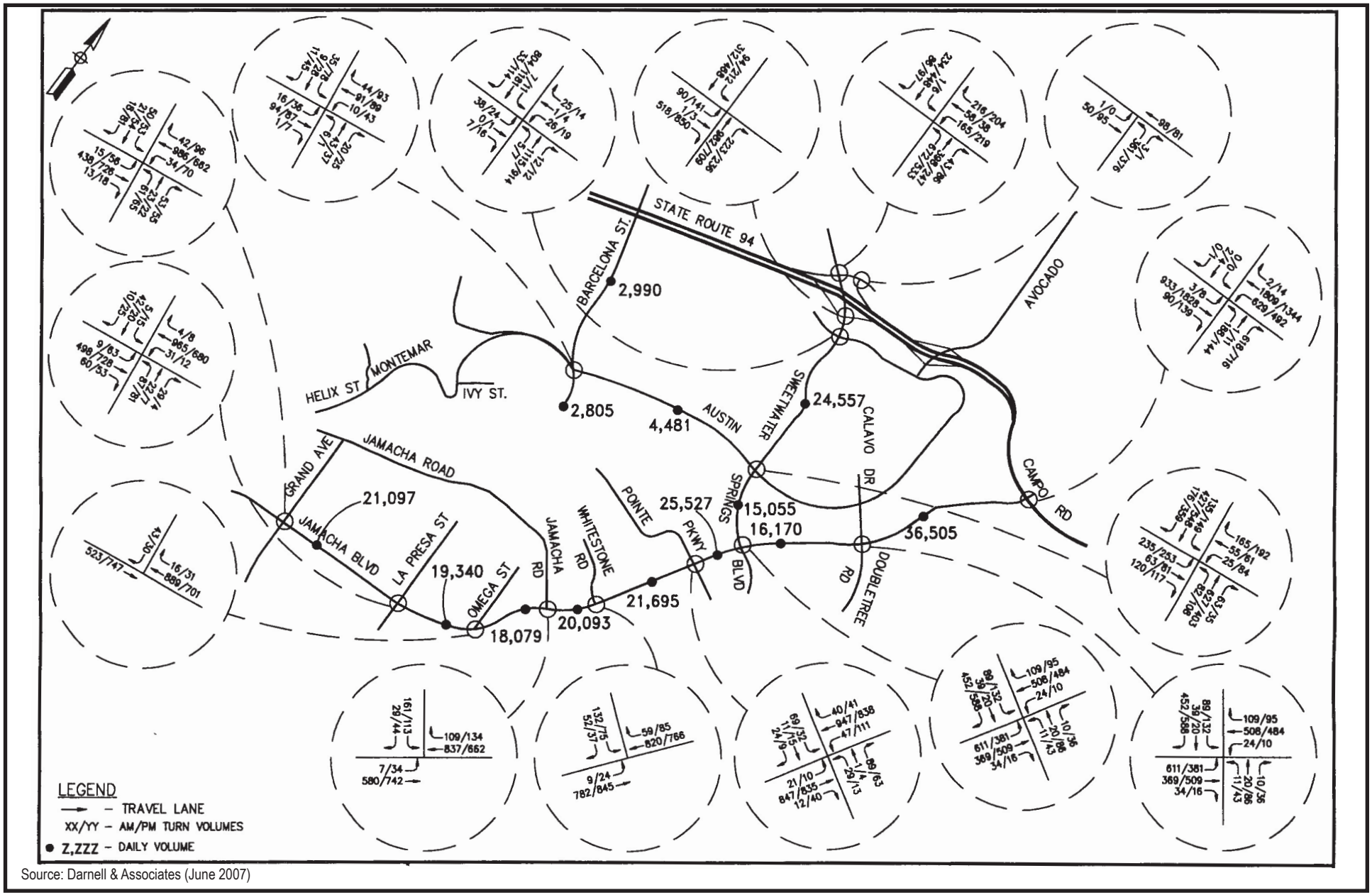
The proposed Project would generate 2,110 daily trips. These trips would be distributed on General Plan Circulation Element roadways in the County that were analyzed by the TIF program, some of which currently or are projected to operate at inadequate levels of service. The potential growth represented by the proposed Project was included in the growth projects upon which the TIF program is based. Therefore, payment of the TIF, which will be required at issuance of building permits, in combination with other components of the program described above (including improvements to the Jamacha Blvd./Pointe Parkway intersection) as specified in Mitigation Measure Nos. 3.5-A(2), 3.5-B, and 3.5-C(1), (2), (3), and (5), will mitigate cumulative traffic impacts to less than significant.




Source: Darnell & Associates (June 2007)



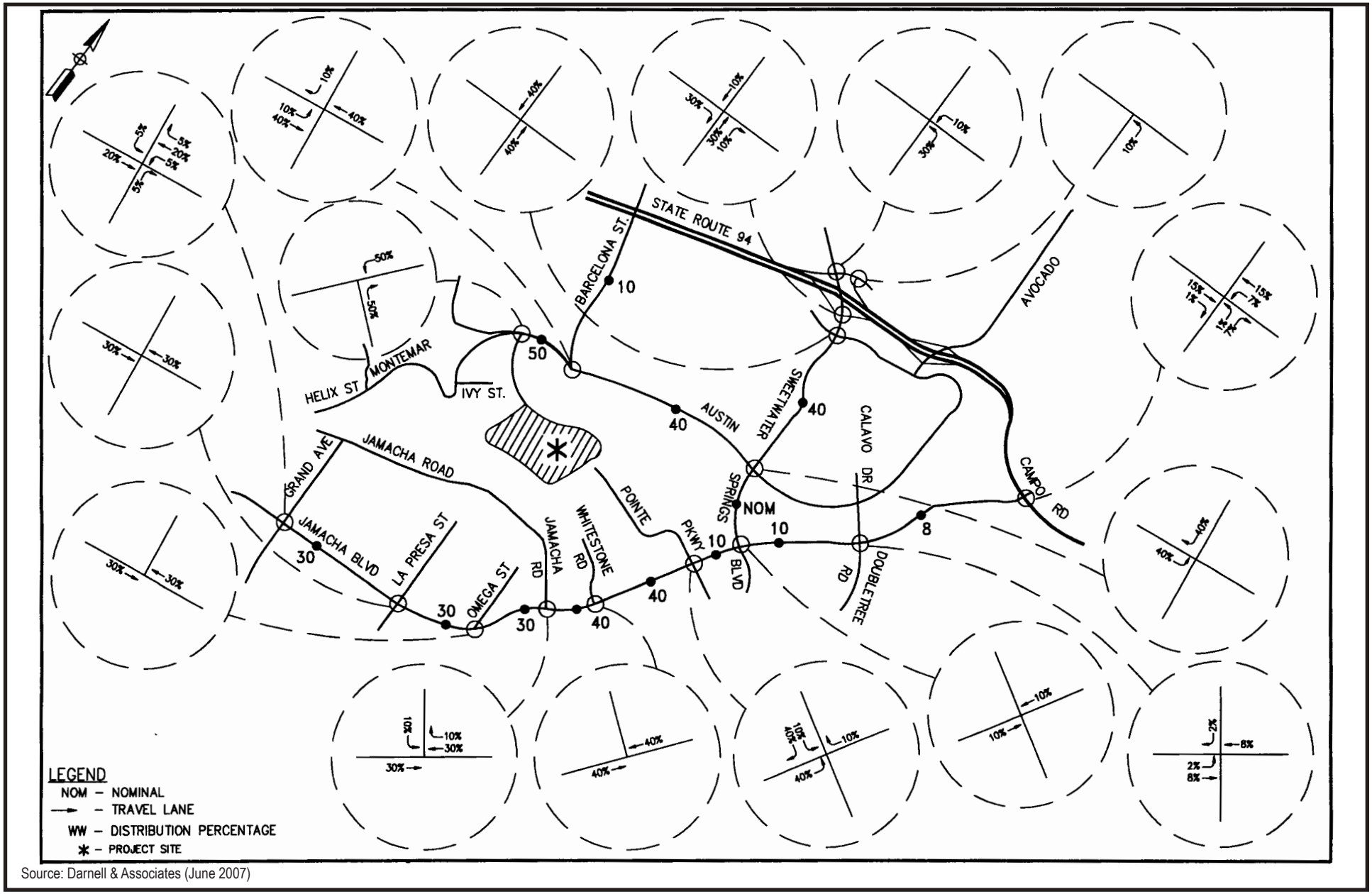
***Figure 3-11***
***EXISTING LANE CONFIGURATIONS***




Source: Darnell & Associates (June 2007)



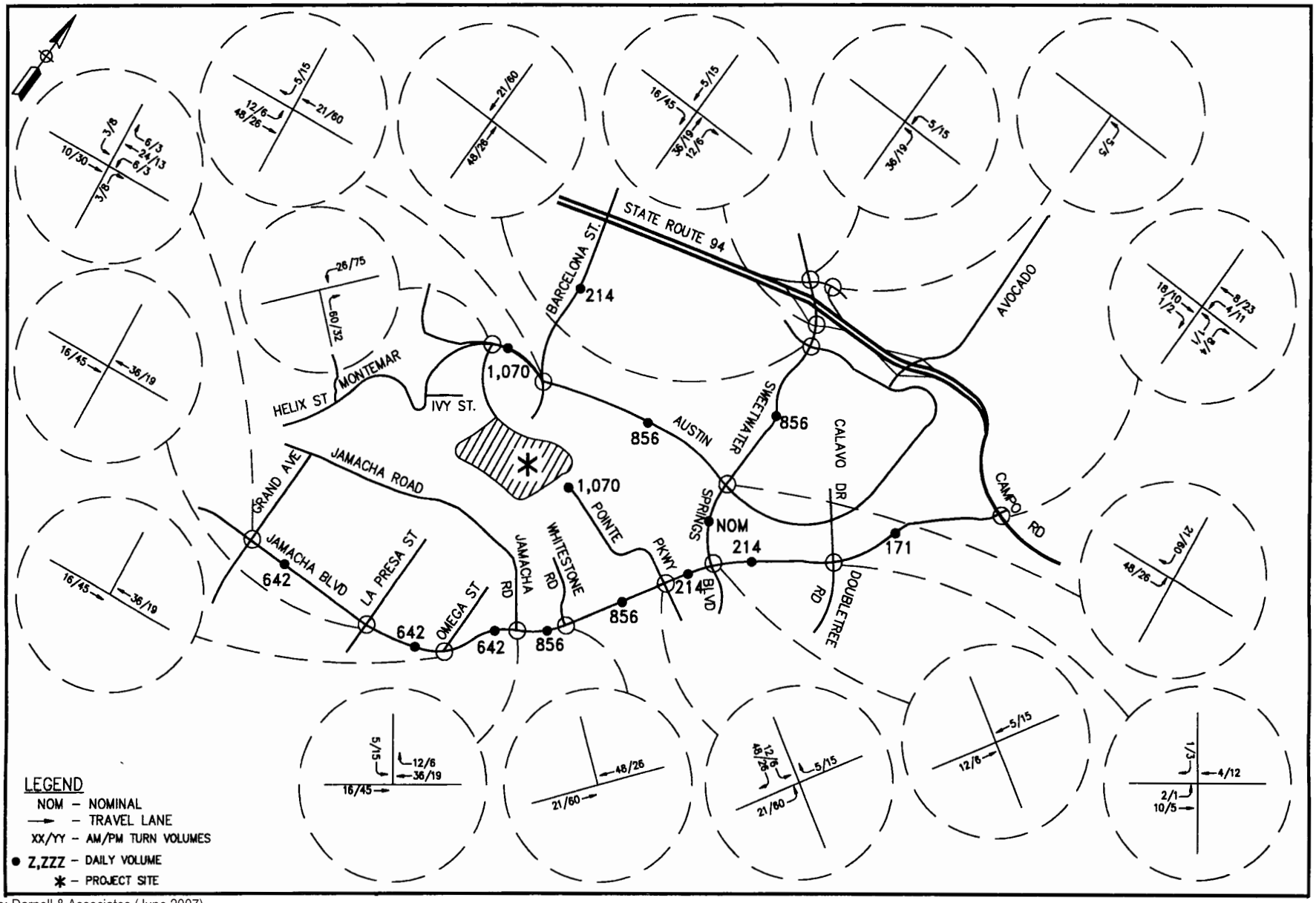
*Figure 3-12*
***EXISTING TRAFFIC VOLUMES***




Source: Darnell & Associates (June 2007)



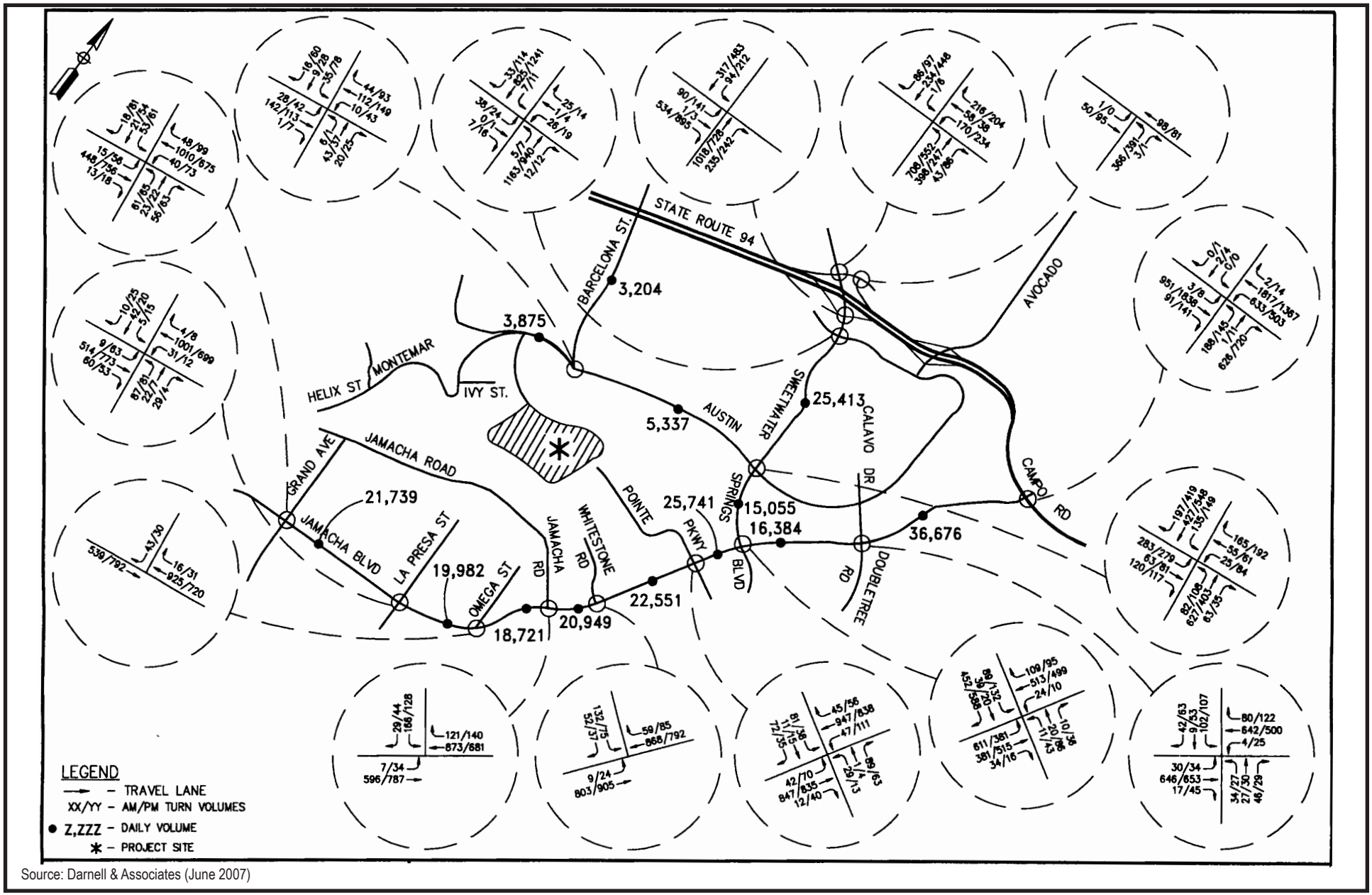
***Figure 3-13***
***PROJECT TRIP DISTRIBUTION***



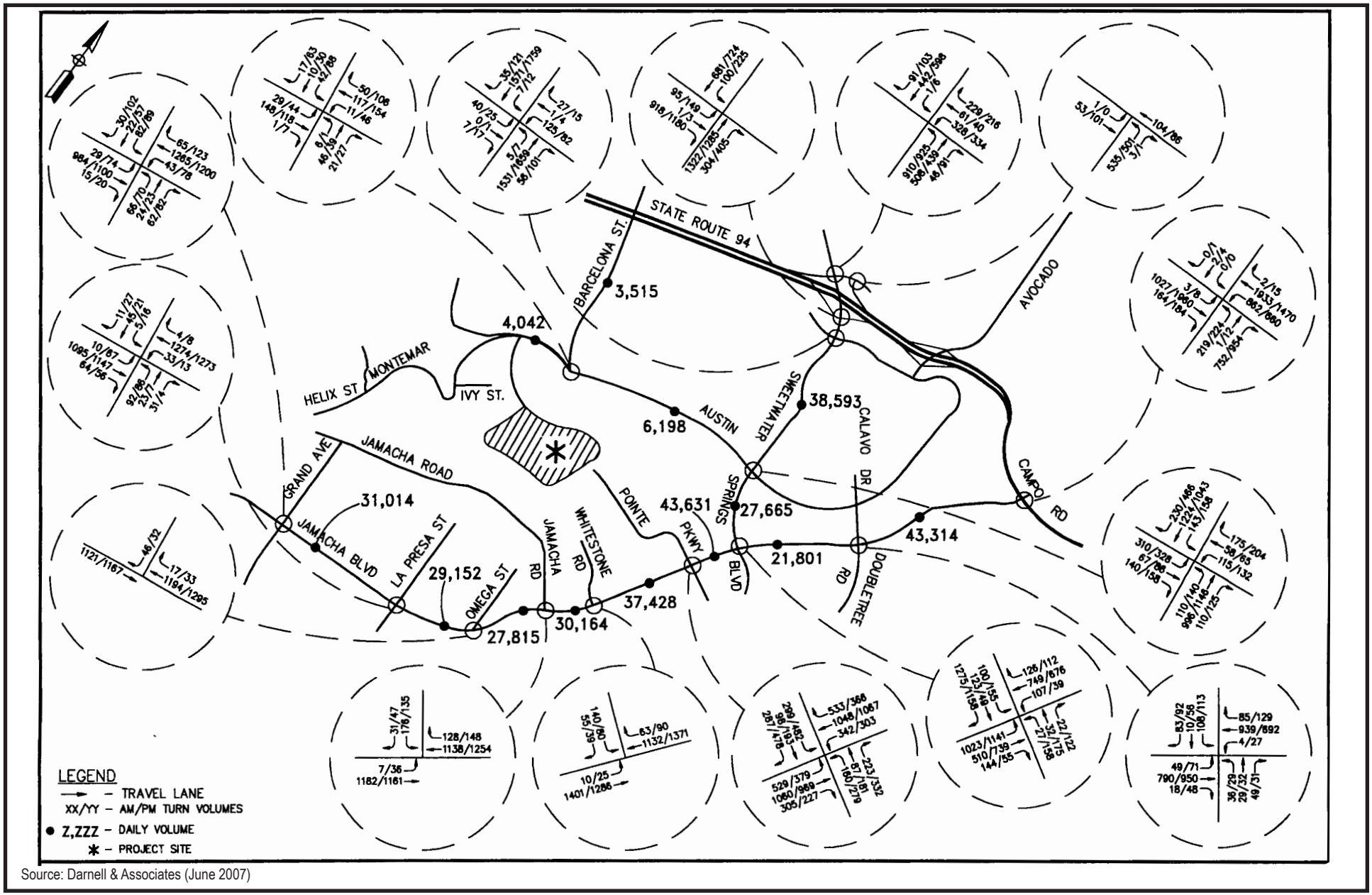

Source: Darnell & Associates (June 2007)



*Figure 3-14*
***PROJECT RELATED TRAFFIC***



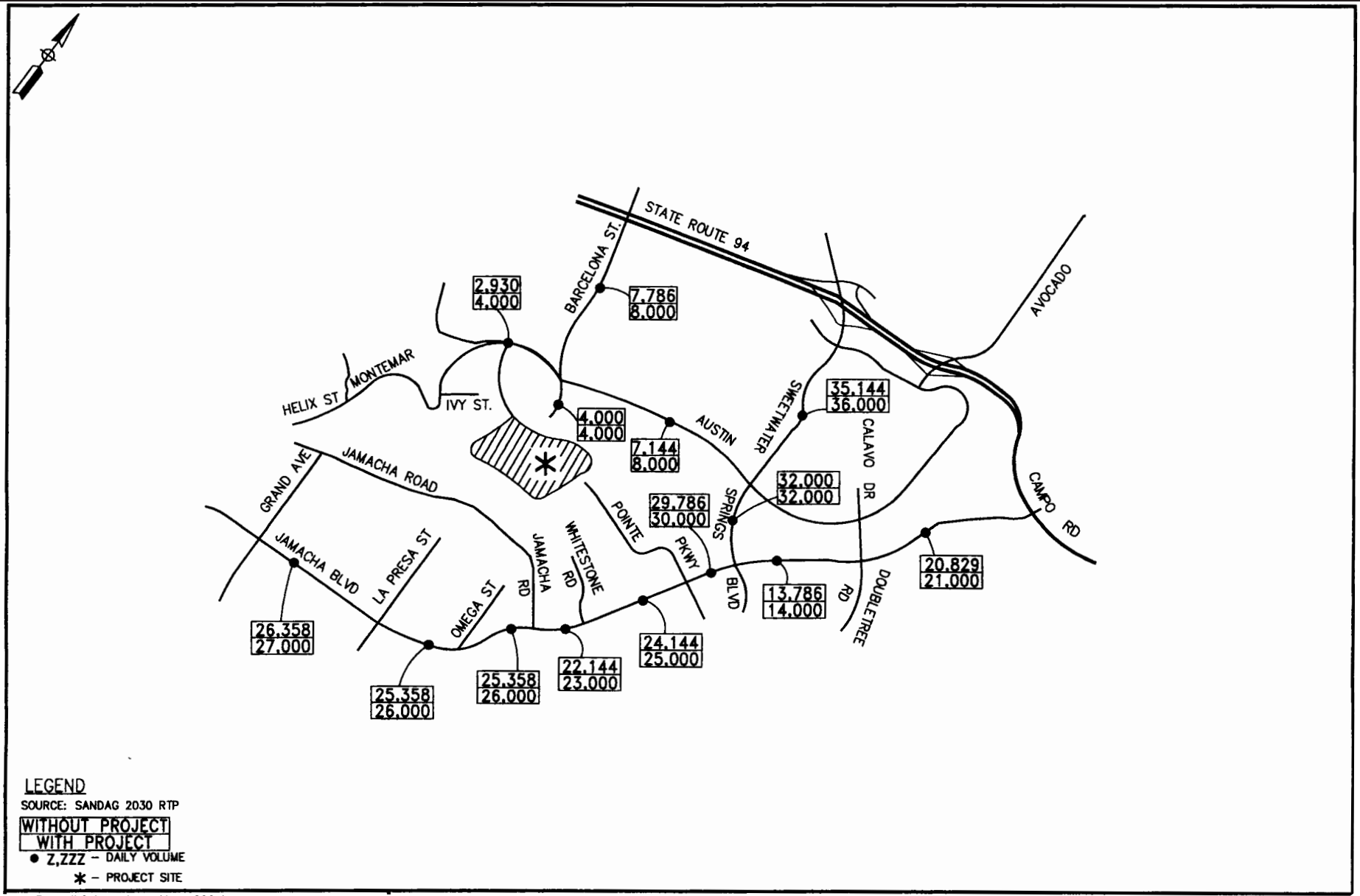

Source: Darnell & Associates (June 2007)




Source: Darnell & Associates (June 2007)



*Figure 3-16*
***NEAR TERM CUMULATIVE TRAFFIC WITH PROJECT***




Source: Darnell & Associates (June 2007)



***Figure 3-17***
***YEAR 2030 TRAFFIC***