

Memorandum

DATE: October 14, 2013

TO: Jennifer Bohen

FROM: John Kain, AICP; Marlie Whiteman, PE

RE: TRAFFIC EVALUATION OF OPTION 2 HIGH SCHOOL #5 ALTERNATIVE SITE
(WITHIN OCGP SPORTS PARK)

Background

The traffic impacts of the 2012 Modified Project as compared to the 2011 Approved Project are analyzed in detail in the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis (June 2012). In response to public discussion regarding the proposed location of IUSD's future High School #5, an additional option is being added to the FSSEIR for planning purposes. This option is not considered a CEQA alternative to the 2012 Modified Project since it does not reduce or eliminate any significant impacts associated with the 2012 Modified Project. This evaluation is not a full traffic analysis in support of a project alternative, but rather a sensitivity analysis of a possible alternative location of the High School with Option 2. This memo focuses on a High School #5 Alternative Site, which consists of the following changes to the 2012 Modified Project Option 2.

District 5:

- TAZ 851 - Remove High School (2,600 Students)
 - Add 360 Multi-Family Residential Units
 - Add 3.6 Acres Neighborhood Park

District 6:

- TAZ 610 - Reduce Multi- Family Residential by 180 Units
 - Reduce Neighborhood Park by 1.8 Acres
- TAZ 611 - Reduce Multi- Family Residential by 180 Units
 - Reduce Neighborhood Park by 1.8 Acres

Orange County Great Park (OCGP):

- TAZ 991 - Add High School (2,600 Students)

Exhibits A and B illustrate the location of project districts and traffic analysis zones (TAZs) referenced above. The changes in the location of land uses for the High School #5 Alternative Site do not change the total quantities of land uses or trip generation within Planning Area 51, in comparison to the 2012 Modified Project Option 2.

Traffic impacts of the High School #5 alternative site have been identified by analyzing the study area circulation system based on 2030 and Post-2030 future traffic conditions consistent with the phasing assumptions of the high school analysis elsewhere in this DSSEIR. Table 1 provides a summary of project land uses under buildout conditions for the High School #5 Alternative Site, in comparison to the 2012 Modified Project. The land uses in the table are described according to the categories that are applied in the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis. The High School #5 Alternative Site evaluated in this memo changes the high school and multi-family residential quantities in Districts 5 and 6, and relocates the high school to the OCGP (City/Other Property).

Trip Generation

Tables 2, 3 and 4 display the daily, morning peak hour and evening peak hour trips generated by the 2012 Modified Project and High School #5 Alternative Site, respectively.

The High School #5 Alternative Site results in a shift of 2,574 daily vehicle trip ends from District 6 to District 5, as residential units are repositioned from District 6 to the area previously occupied by the high school in District 5. The High School #5 Alternative Site also results in a shift of 12 daily vehicle trip ends from District 6 to District 5, as Neighborhood Park acres are repositioned from District 6 to the area previously occupied by the high school in District 5. Location of the high school within the OCGP Sports Park also moves 3,224 daily vehicle trip ends out of District 5 and into the OCGP Sports Park. The resulting changes are summarized below:

District 5 – Reduction of 638 daily vehicle trip ends

District 6 – Reduction of 2,586 daily vehicle trip ends

OCGP Sports Park – Increase of 3,224 daily vehicle trip ends

Year 2030 Analysis

This section summarizes the 2030 High School #5 Alternative Site traffic conditions for the various components of the study area circulation system including arterial roads and intersections, freeway/tollway mainline segments and freeway/tollway ramps.

The Year 2030 circulation system in the study area was previously illustrated in the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis (June 2012), and only improvements committed for construction (i.e., public agency capital improvement programs, state transportation improvement program, etc.) or would be constructed as part of previously entitled development by the year 2030 are assumed. The Year 2030 with High School #5 Alternative Site average daily traffic (ADT) volumes and corresponding volume/capacity (V/C) ratios are illustrated in Exhibits C and D, respectively.

Based on the ADT V/C performance criteria and impact thresholds discussed in the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis (June 2012), the following six (6) arterial roadway segments are potentially impacted by the Proposed Project:

- Bake Pkwy. (b/w Rockfield Bl. & Marine Wy.)
- Irvine Bl. (b/w A St & Z St)
- Irvine Bl. (b/w Z St & B St)
- Trabuco Rd. (b/w SR-133 & O St.)
- Jeffrey Rd. (b/w Roosevelt & I-5 NB Ramps)
- Alton Pkwy. (e/o Culver Dr.)

Consistent with City of Irvine traffic study guidelines, these locations are further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under year 2030 with High School #5 Alternative Site conditions are summarized in Table 5. As the summary table indicates, all arterial roadway segments are forecast to operate at acceptable levels of service during the peak hour, therefore none of the arterial segments exceed adopted thresholds.

Year 2030 with High School #5 Alternative Site AM and PM peak hour intersection capacity utilization (ICU) results for the intersections that are analyzed in this traffic study are summarized in Table 6. Actual turn volumes, lane geometrics and ICU calculation worksheets for Year 2030 with High School #5 Alternative Site are included in Attachment 1. Nine (9) intersections as shown in Table 7 exceed adopted impact thresholds with the High School #5 Alternative Site based on Year 2030 conditions. The 9 intersections are:

- Newport Ave. & Irvine Bl.
- Browning Ave. & Irvine Bl.
- Culver Dr. & Bryan Ave.
- Culver Dr. & Barranca Pkwy.
- Jeffrey Rd. & Barranca Pkwy.
- Jeffrey Rd. & Alton Pkwy.
- Sand Canyon Ave. & I-5 NB Ramp/Marine
- Sand Canyon Ave. & Oak Canyon
- Bake Pkwy. & Rockfield Bl.

2011 Approved Project (baseline) and High School #5 Alternative Site AM and PM peak hour ramp volumes and V/C ratios are summarized in Table 8. Based on the peak hour ramp performance criteria and impact thresholds discussed in the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis (June 2012), the following one freeway ramp is forecast to exceed adopted impact thresholds with the High School #5 Alternative Site based on Year 2030 conditions.

- I-5 NB Off-Ramp to Jamboree Rd.

2011 Approved Project (baseline) and High School #5 Alternative Site AM and PM freeway/tollway mainline peak hour volumes and V/C ratios are summarized in Table 9. Based on the peak hour mainline performance criteria and impact thresholds discussed in the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis (June 2012), three (3) freeway mainline

segments are forecast to exceed adopted impact thresholds with the High School #5 Alternative Site based on Year 2030 conditions:

- I-5 NB, n/o Culver Dr.
- I-5 NB, n/o Jeffrey Rd.
- I-405 NB, n/o Jeffrey Rd.

Year 2030 Impact Assessment

In this section, potential improvements are presented for the locations identified as being impacted by the High School #5 Alternative Site based on Year 2030 conditions.

The following discusses the specific improvements that would address the 2030 impacts identified in this memo. The improvements are designed to address the Project's impacts by improving the LOS at each impacted location.

Eight intersections impacted by the 2012 Modified Project with Option 2 are also impacted with the High School #5 Alternative Site. At seven of these eight locations, the improvements identified in the 2012 Modified Project Option 2 mitigation measures (described in Section 7.3 of the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis) also address High School #5 Alternative Site impacts (and are therefore included in Table 31 of this document):

- Newport Ave. & Irvine B.
- Browning Ave. & Irvine Bl.
- Culver Dr. & Bryan Ave.
- Culver Dr. & Barranca Pkwy.
- Jeffrey Rd. & Barranca Pkwy.
- Sand Canyon Ave. & Oak Canyon
- Bake Pkwy & Rockfield Bl.

At the intersection of Sand Canyon Avenue and the I-5 Northbound Ramp/Marine Way, a second eastbound through lane (resulting in an ultimate geometry of 2-left turn lanes, 2-through lanes, 1-right turn lane) and conversion of the northbound de-facto right turn lane to a standard right turn lane with right turn signal overlap (RTO) signal operation addresses the impact. One additional intersection is impacted by the Option 2 High School #5 Alternative Site, in comparison to the 2012 Modified Project Option 2. At Jeffrey Road / Alton Parkway, an eastbound right turn lane with right turn overlap phasing would address the impact.

The High School #5 Alternative Site exceeds the adopted impact threshold for 2030 conditions at one freeway ramp location. The proposed improvement at the I-5 Northbound off-ramp to Jamboree Road is to add a second drop lane from the I-5 to the Jamboree Road off-ramp.

A directional capacity enhancement equivalent to a single general purpose lane addresses the High School #5 Alternative Site contribution to a cumulative 2030 impact at three (3) freeway segments:

- I-5 NB, n/o Culver Dr.

- I-5 NB, n/o Jeffrey Rd.
- I-405 NB, n/o Jeffrey Rd.

Table 10 contains the analysis of the High School #5 Alternative Site impacted intersection locations, ramps and freeway segments with proposed mitigation for 2030 conditions.

Post-2030 Analysis

This section summarizes the General Plan Buildout (Post-2030) High School #5 Alternative Site traffic conditions for the various components of the study area circulation system including arterial roads and intersections, freeway/tollway mainline segments and freeway/tollway ramps.

The Post-2030 circulation system in the study area is illustrated in Chapter 4.0 of the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis (June 2012). The Post-2030 with High School #5 Alternative Site average daily traffic (ADT) volumes and corresponding volume/capacity (V/C) ratios are illustrated in Exhibits E and F, respectively.

Based on the ADT V/C performance criteria and impact thresholds discussed in Table 2-4 of the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis, the following five (5) arterial roadway segments are potentially impacted by the High School #5 Alternative Site:

- Bake Pkwy. (b/w Rockfield Bl. & Marine Wy.)
- Alton Pkwy. (e/o Culver Dr.)
- Trabuco Rd. (b/w SR-133 and O St.)
- Barranca Pkwy. (s/o Technology Dr.)
- Jeffrey Rd. (b/w Roosevelt & I-5 NB Ramps)

Consistent with City of Irvine traffic study guidelines, these locations are further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under High School #5 Alternative Site conditions are summarized in Table 11. As the summary table indicates, all arterial roadway segments are forecast to operate at acceptable levels of service during the peak hour, therefore none of the arterial segments exceed adopted thresholds.

Post-2030 with High School #5 Alternative Site AM and PM peak hour intersection capacity utilization (ICU) results for the intersections analyzed in this memo are summarized in Table 12. Actual turn volumes, lane geometrics and ICU calculation worksheets for Post-2030 with the High School #5 Alternative Site are included in Attachment 2.

Based on the peak hour intersection performance criteria and impact thresholds discussed in Chapter 2.0 of the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis (June 2012), three (3) intersections as shown in Table 13 exceed adopted impact thresholds with the High School #5 Alternative Site based on Post-2030 conditions. The 3 intersections are:

- Jeffrey Rd. & Roosevelt
- Jeffrey Rd. & Alton Pkwy.
- Laguna Canyon Rd. & Old Laguna Canyon Rd.

2011 Approved Project (baseline) and High School #5 Alternative Site AM and PM peak hour ramp volumes and V/C ratios are summarized in Table 14. The High School #5 Alternative Site does not exceed adopted impact thresholds at any of the study area freeway interchange ramps for Post-2030 conditions.

2011 Approved Project (baseline) and High School #5 Alternative Site AM and PM freeway/tollway mainline peak hour volumes and V/C ratios are summarized in Table 15. Based on the peak hour mainline performance criteria and impact thresholds discussed in Table 2-4 of the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis, one (1) freeway mainline segment is forecast to exceed adopted impact thresholds with the Option 2 High School #5 Alternative Site based on Post-2030 conditions (I-405 Northbound, north of Jeffrey Road).

Post-2030 Impact Assessment

In this section, improvements are presented for the locations identified as being impacted by the High School #5 Alternative Site based on Post-2030 conditions.

The following discusses the specific improvements that would address the Post-2030 impacts identified in this memo. The improvements are designed to address the Project's impacts by improving the LOS at each impacted location.

The three intersections impacted by the 2012 Modified Project with Option 2 are also impacted with the High School #5 Alternative Site. At these three locations, the same improvements identified in the 2012 Modified Project Option 2 mitigation measures (described in Section 8.3 of the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis) also address High School #5 Alternative Site impacts for Post-2030 conditions (and are therefore included in Table 31 of this document):

- Jeffrey Rd. & Roosevelt
- Jeffrey Rd. & Alton Pkwy.
- Laguna Canyon Rd. & Old Laguna Canyon Rd.

A directional capacity enhancement equivalent to a single general purpose lane addresses the High School #5 Alternative Site contribution to cumulative Post-2030 impacts on the I-405 Northbound, n/o Jeffrey Road.

Table 16 contains the analysis of the High School #5 Alternative Site impacted intersection locations and freeway segments and identifies improvement that would address Post-2030 conditions.

Year 2030 Analysis with Pending Projects

This section summarizes the 2030 High School #5 Alternative Site traffic conditions for the various components of the study area circulation system including arterial roads and intersections, freeway/tollway mainline segments and freeway/tollway ramps, with pending projects.

The Year 2030 with pending projects and with High School #5 Alternative Site average daily traffic (ADT) volumes and corresponding volume/capacity (V/C) ratios are illustrated in Exhibits G and H, respectively.

Based on the ADT V/C performance criteria and impact thresholds discussed in the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis (June 2012), the following six (6) arterial roadway segments are potentially impacted by the High School #5 Alternative Site with pending projects:

- Bake Pkwy. (b/w Rockfield Bl. & Marine Wy.)
- Irvine Bl. (b/w A St & Z St)
- Irvine Bl. (b/w Z St & B St)
- Trabuco Rd. (b/w SR-133 and O St.)
- Jeffrey Rd. (b/w Roosevelt & I-5 NB Ramps)
- Trabuco Rd. (e/o Culver Dr)

Consistent with City of Irvine traffic study guidelines, these locations are further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under year 2030 with pending projects and with High School #5 Alternative Site are summarized in Table 17. As the summary table indicates, all arterial roadway segments are forecast to operate at acceptable levels of service during the peak hour, therefore none of the arterial segments exceed adopted thresholds.

Year 2030 with pending projects and with High School #5 Alternative Site AM and PM peak hour intersection capacity utilization (ICU) results for intersections are summarized in Table 18. Actual turn volumes, lane geometrics and ICU calculation worksheets for Year 2030 with pending projects and with High School #5 Alternative Site are included in Attachment 3. Seven (7) intersections as shown in Table 19 exceed adopted impact thresholds with pending projects and with the High School #5 Alternative Site based on Year 2030 conditions. The seven intersections are:

- Newport Ave. & Irvine Bl.
- Browning Ave. & Irvine Bl.
- Jeffrey Rd. & Barranca Pkwy.
- Jeffrey Rd. & Alton Pkwy.
- Sand Canyon Ave. & I-5 NB Ramps
- Bake Pkwy. & Rockfield Bl.
- El Toro Rd. & Portola Pkwy.

High School #5 Alternative Site AM and PM peak hour ramp volumes and V/C ratios with pending projects are summarized in Table 20. The following freeway ramp is forecast to exceed adopted impact thresholds with pending projects and with the High School #5 Alternative Site based on Year 2030 conditions.

- I-5 NB Off-Ramp to Jamboree Rd.

High School #5 Alternative Site AM and PM freeway/tollway mainline peak hour volumes and V/C ratios with pending projects are summarized in Table 21. One (1) freeway mainline segment is forecast to exceed adopted impact thresholds with pending projects and with the High School #5 Alternative Site based on Year 2030 conditions (I-5 Northbound, north of Culver Drive).

Year 2030 Impact Assessment with Pending Projects

Five (5) intersections impacted by the 2012 Modified Project Option 2 with pending projects are also impacted with the High School #5 Alternative Site with pending projects. At these five locations, the improvements identified in the 2012 Modified Project Option 2 mitigation measures with pending projects (described in Section 9.1 of the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis) also address High School #5 Alternative Site impacts with pending projects:

- Browning Ave. & Irvine Bl.
- Jeffrey Rd. & Barranca Pkwy.
- Sand Canyon Ave. & I-5 NB Ramps
- Bake Pkwy & Rockfield Bl.
- El Toro Rd. & Portola Pkwy.

One intersection that was impacted by the 2012 Modified Project Option 2 with pending projects is no longer impacted by the High School Location Alternative (Culver Dr. & Barranca Pkwy.). Two additional intersections are impacted by the High School #5 Alternative Site with pending projects, in comparison to the 2012 Modified Project Option 2 with pending projects. At the intersection of Newport Avenue and Irvine Boulevard, a signal modification to accommodate the northbound right turn overlap phase addresses the impact with pending projects. At Jeffrey Road / Alton Parkway, provision of an eastbound right turn lane with overlap phase, resulting in an ultimate configuration of two left, two through, and one right turn lane addresses the impact.

The High School #5 Alternative Site with pending projects is forecast to exceed the adopted impact threshold for 2030 conditions at one freeway ramp location. The proposed improvement at the I-5 Northbound off-ramp to Jamboree Road is to add a second drop lane from the I-5 to the Jamboree Road off-ramp.

A directional capacity enhancement equivalent to a single general purpose lane addresses the High School #5 Alternative Site contribution to a cumulative 2030 impact at one freeway segment with pending projects:

- I-5 NB, n/o Culver Dr.

Table 22 contains the analysis of the High School #5 Alternative Site impacted intersection locations, ramps and freeway segments with and identifies improvements that would address 2030 conditions with pending projects.

Post-2030 Analysis with Pending Projects

The Post-2030 with pending projects and with High School #5 Alternative Site average daily traffic (ADT) volumes and corresponding volume/capacity (V/C) ratios are illustrated in Exhibits I and J, respectively.

The following four (4) arterial roadway segments are potentially impacted by the High School #5 Alternative Site with pending projects:

- Bake Pkwy. (b/w Rockfield Bl. & Marine Wy.)
- Trabuco Rd. (b/w SR-133 and O St.)
- Jeffrey Rd. (b/w Roosevelt & I-5 NB Ramps)
- Trabuco Rd. (e/o Culver Dr)

Consistent with City of Irvine traffic study guidelines, these locations are further analyzed by examining peak hour levels of service. The resulting midblock peak hour V/C ratios for the arterial segments under High School #5 Alternative Site conditions are summarized in Table 23. As the summary table indicates, all arterial roadway segments are forecast to operate at acceptable levels of service during the peak hour, therefore none of the arterial segments exceed adopted thresholds.

Post-2030 with pending projects and with High School #5 Alternative Site AM and PM peak hour intersection capacity utilization (ICU) results for intersections are summarized in Table 24. Actual turn volumes, lane geometrics and ICU calculation worksheets for Post-2030 with pending projects and with the High School #5 Alternative Site are included in Attachment 4.

Three (3) intersections as shown in Table 25 exceed adopted impact thresholds with pending projects and with the High School #5 Alternative Site based on Post-2030 conditions. The 3 intersections are:

- Newport Ave. & Irvine Bl.
- Jeffrey Rd. & Roosevelt
- Jeffrey Rd. & Alton Pkwy.

High School #5 Alternative Site AM and PM peak hour ramp volumes and V/C ratios are summarized in Table 26 with pending projects. The High School #5 Alternative Site exceeds adopted impact thresholds at one of the study area freeway interchange ramps for Post-2030 conditions with pending projects (I-5 Northbound Ramp to Jamboree Road).

High School #5 Alternative Site AM and PM freeway/tollway mainline peak hour volumes and V/C ratios are summarized in Table 27 with pending projects. No freeway mainline segments are forecast to exceed adopted impact thresholds with the Option 2 High School #5 Alternative Site based on Post-2030 conditions with pending projects.

Post-2030 Impact Assessment with Pending Projects

The same two intersections impacted by the 2012 Modified Project Option 2 with pending projects are also impacted with the High School #5 Alternative Site with pending projects. At these two locations, the improvements identified in the 2012 Modified Project Option 2

mitigation measures (described in Section 9.1 of the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis) also address High School #5 Alternative Site impacts for Post-2030 conditions with pending projects:

- Jeffrey Rd. & Roosevelt
- Jeffrey Rd. & Alton Pkwy.

One additional intersection is impacted by the High School #5 Alternative Site with pending projects in comparison to the 2012 Modified Project Option 2 with pending projects. At the intersection of Newport Avenue and Irvine Boulevard, the Post-2030 improvement to the High School #5 Alternative Site impact consists of a signal modification for right turn overlap phase.

The High School #5 Alternative Site with pending projects is forecast to exceed the adopted impact threshold for Post 2030 conditions at one freeway ramp location. The proposed improvement at the I-5 Northbound off-ramp to Jamboree Road is to add a second drop lane from the I-5 to the Jamboree Road off-ramp.

Table 28 contains the analysis of the High School #5 Alternative Site impacted intersection locations and freeway segments and identifies improvements that would address Post-2030 conditions with pending projects.

Conclusions

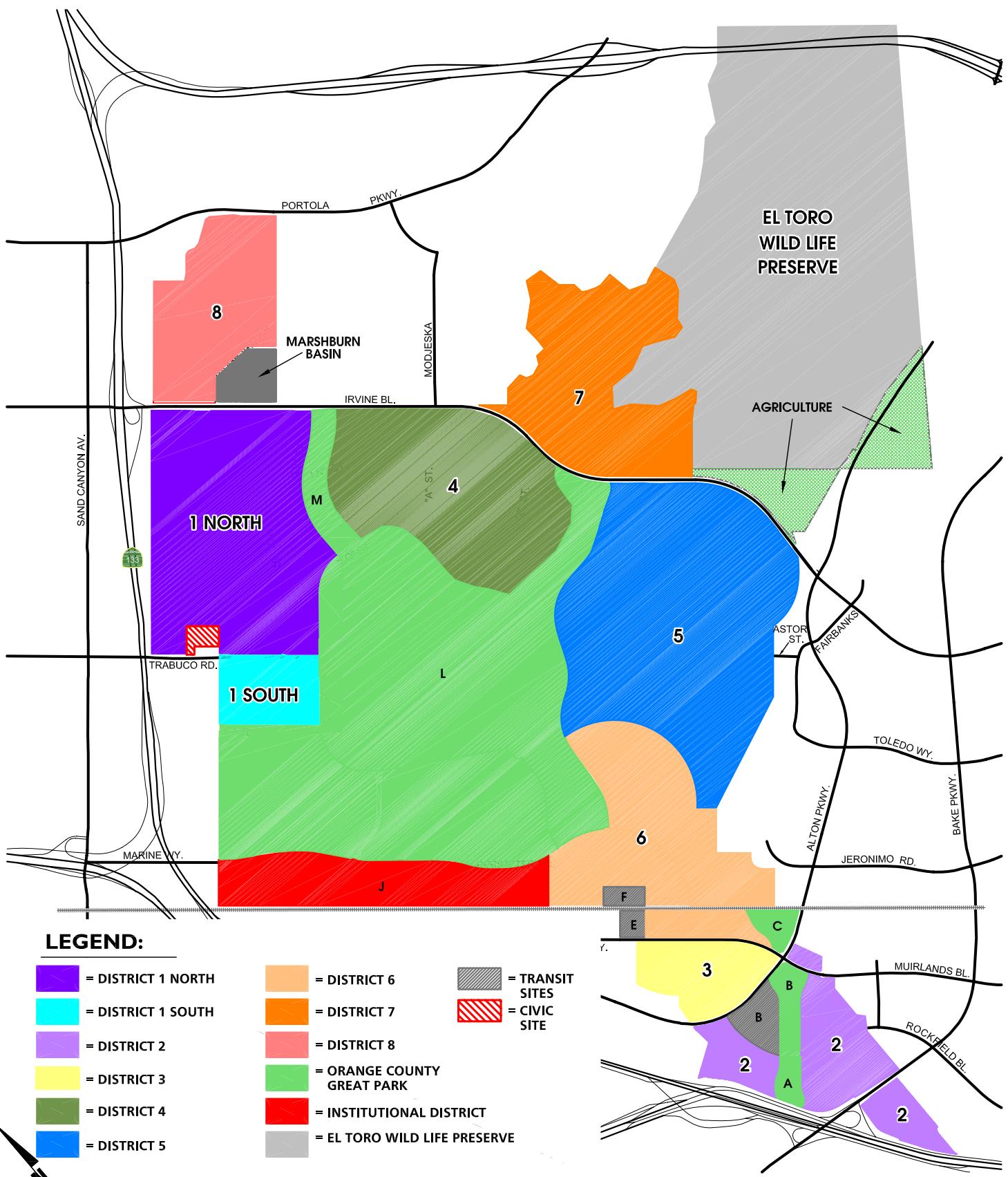
Traffic impacts of the High School #5 Alternative Site have been identified by analyzing the study area circulation system based 2030 and Post-2030 future traffic conditions. 2011 Approved Project (baseline for 2030 and Post-2030) are compared to the Option 2 High School #5 Alternative Site in order to identify the potential traffic impacts for conditions without and with pending projects. Cumulative future traffic conditions were evaluated using the Irvine Transportation Analysis Model, Version 8.4-10 (ITAM 8.4-10).

Improvements for each impacted location are discussed above. The results of the impact analysis are summarized in Table 29 for conditions without pending projects, and in Table 30 for conditions with pending projects.

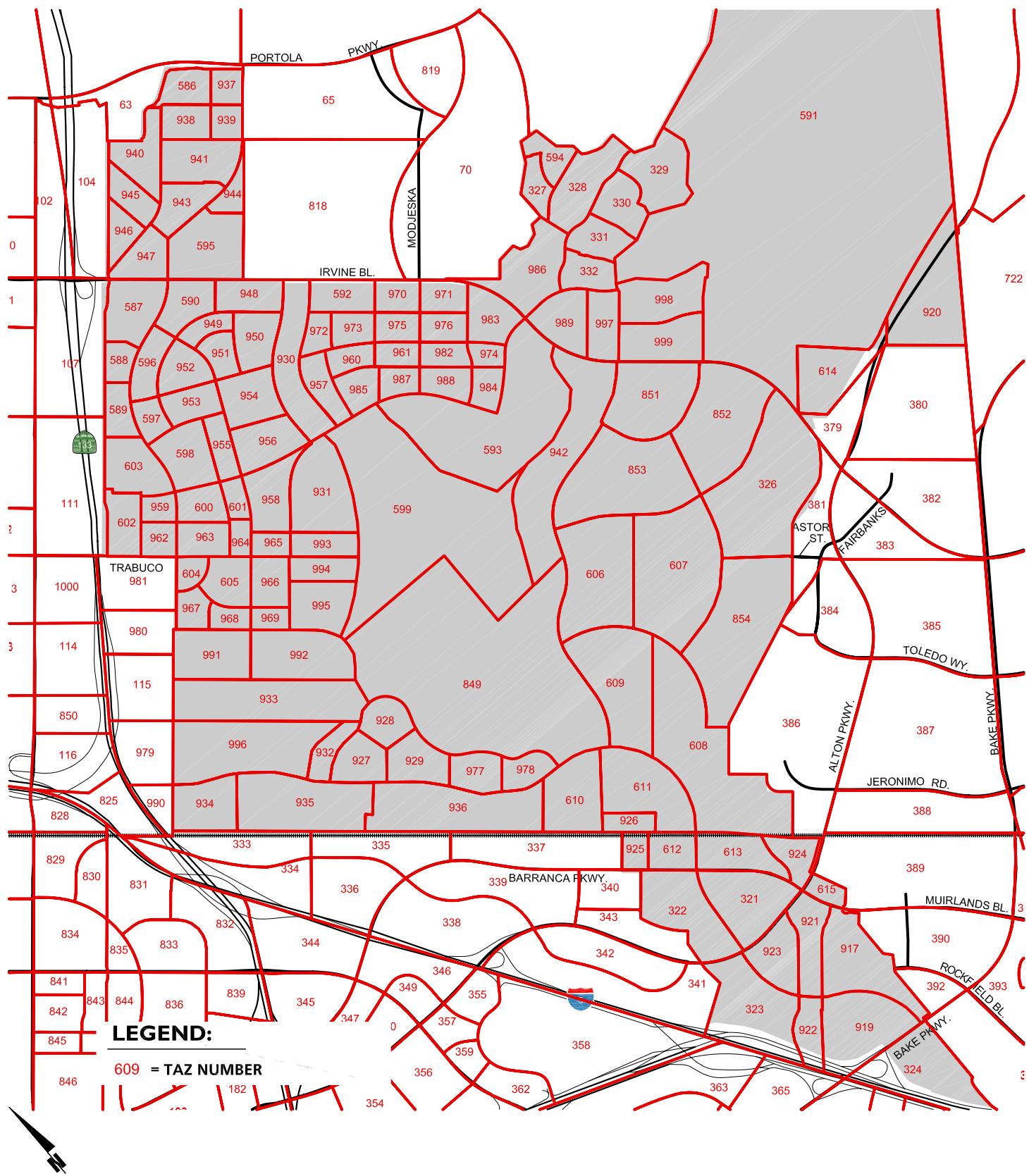
Intersection lane configurations for project buildout (2030 and Post-2030) with the High School #5 Alternative Site do not change in comparison to those shown on Exhibit 9-37 of the Heritage Fields Project 2012 GPA/ZC Traffic Impact Analysis (June 2012). Driveway access to high school parking areas as well as the turn pocket storage lengths of intersections in proximity of the new high school location would need to be further evaluated in conjunction with site planning, if this alternative is advanced.

Table 31 summarizes the off-site Option 2 High School #5 Alternative Site impacts. For each location, the table describes the relevant improvements.

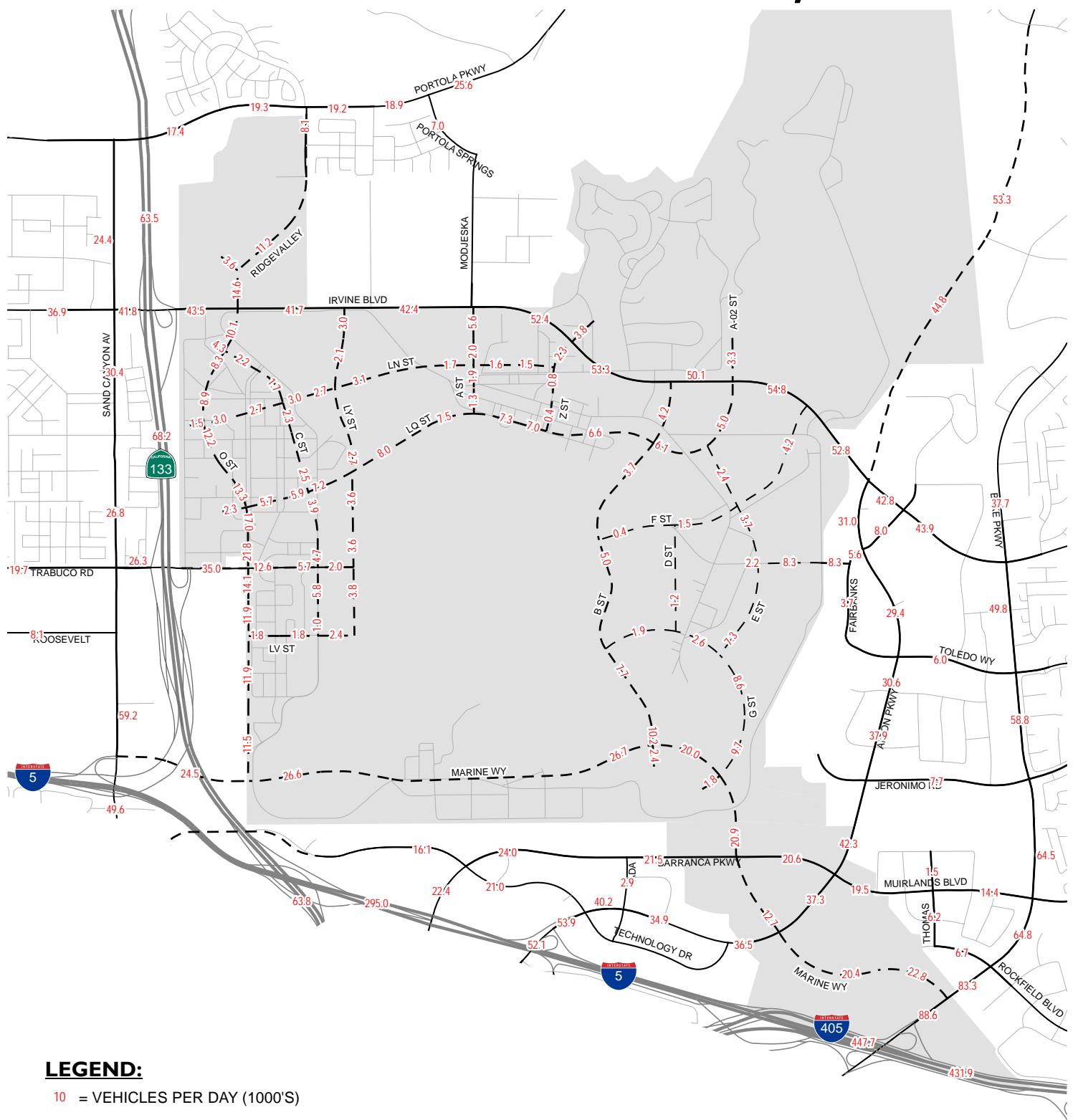
EXHIBIT A
PROJECT AREA DISTRICTS



2030/POST 2030 TRAFFIC ANALYSIS ZONES (TAZ's)

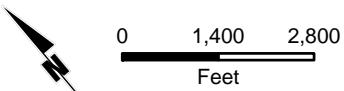


YEAR 2030 ADT VOLUMES WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, PROJECT AREA



LEGEND:

10 = VEHICLES PER DAY (1000'S)



YEAR 2030 ADT VOLUMES WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, WEST STUDY AREA

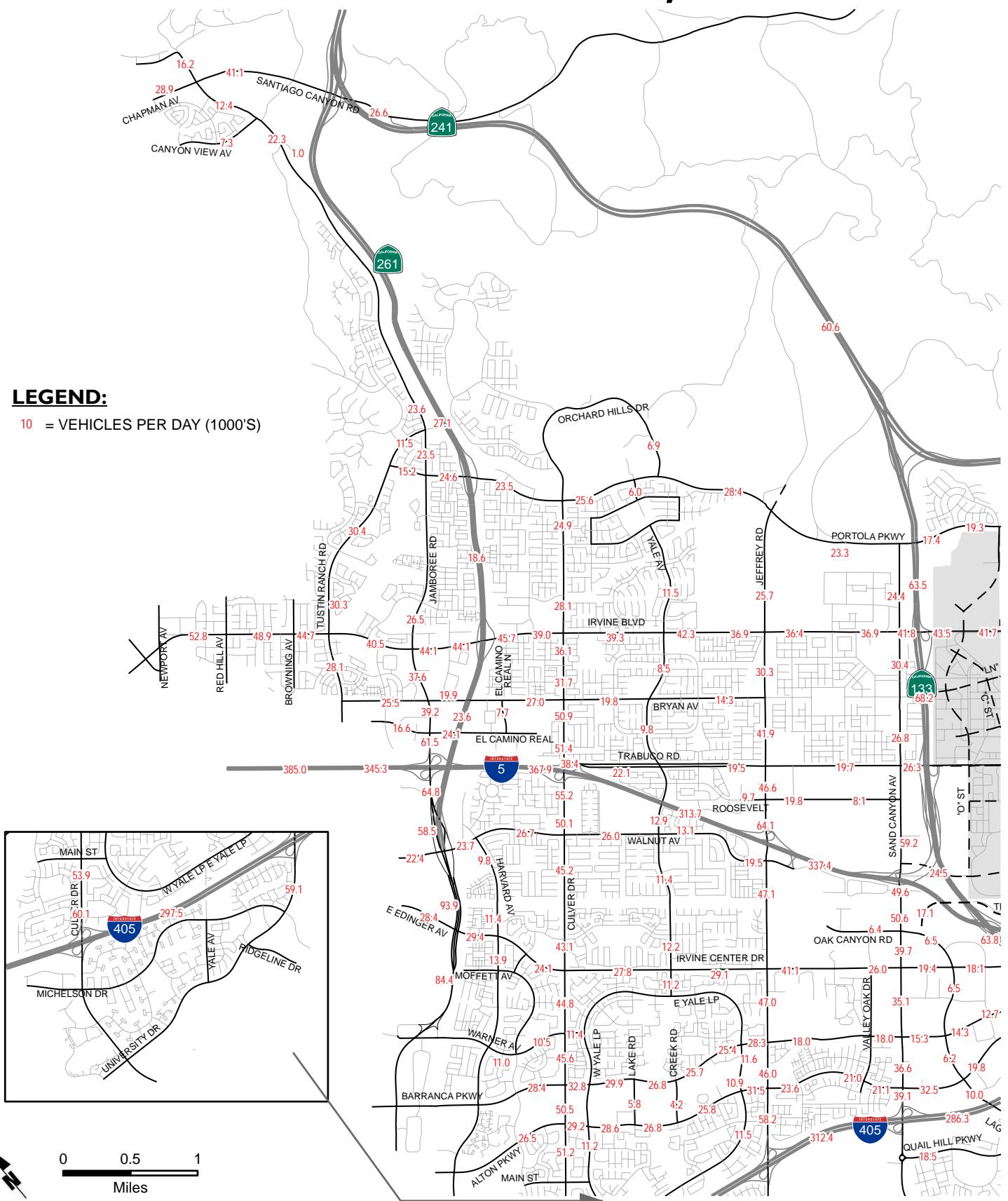
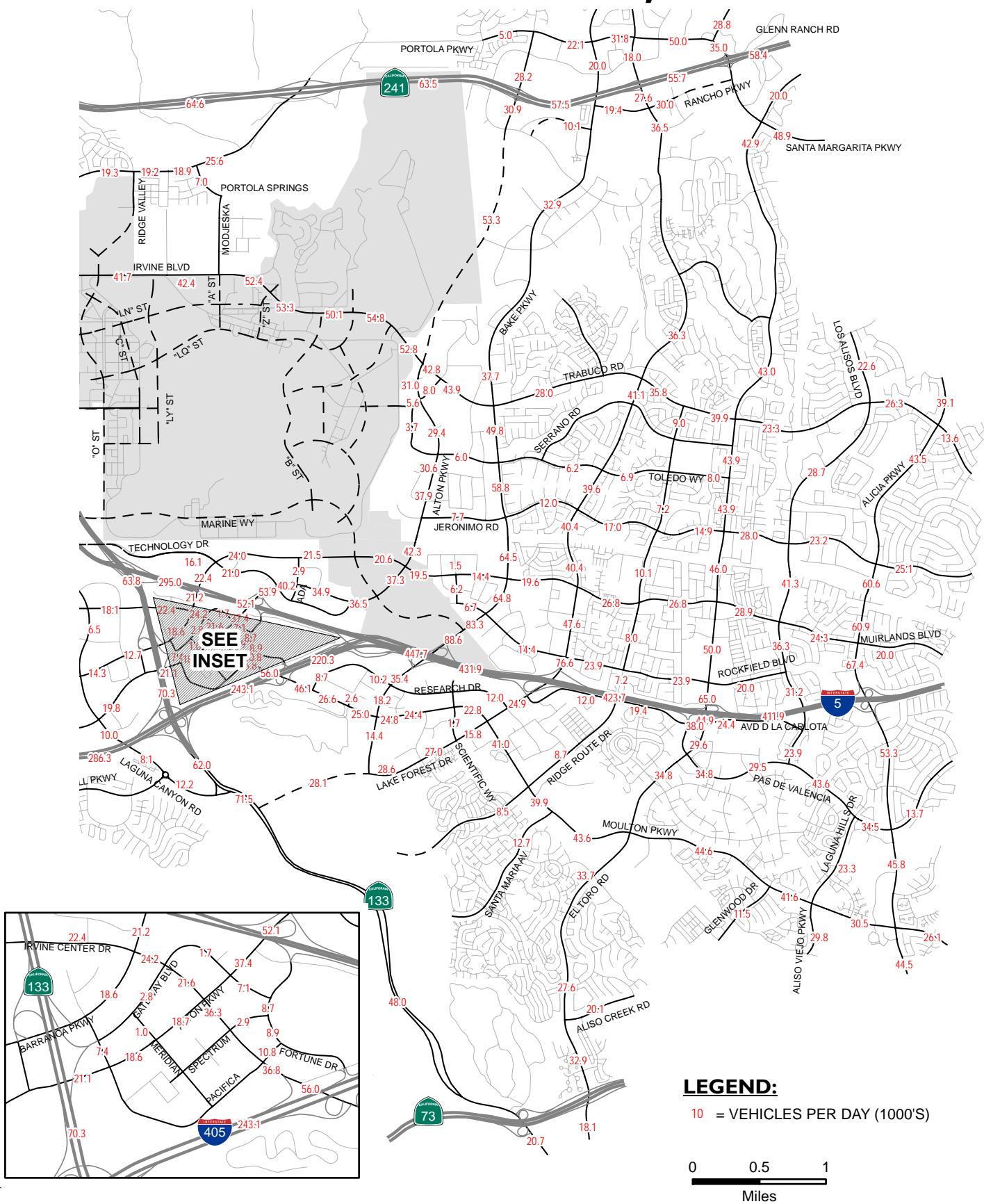


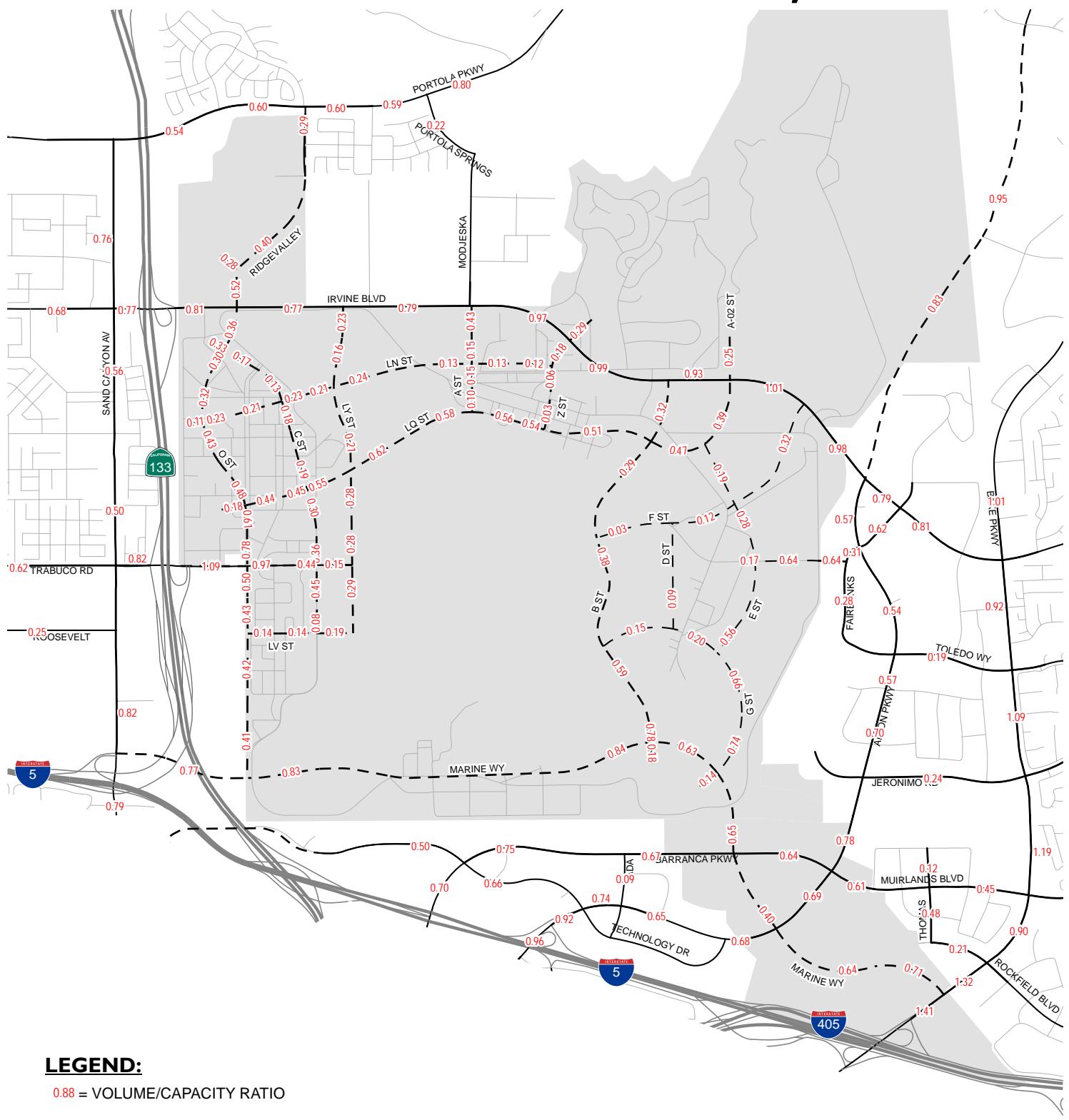
EXHIBIT C (3 OF 3)



Heritage Fields Project 2012 - GPA/ZC Traffic Study
City of Irvine, CA (JN - 07151:2030-adt_hs_east.mxd)

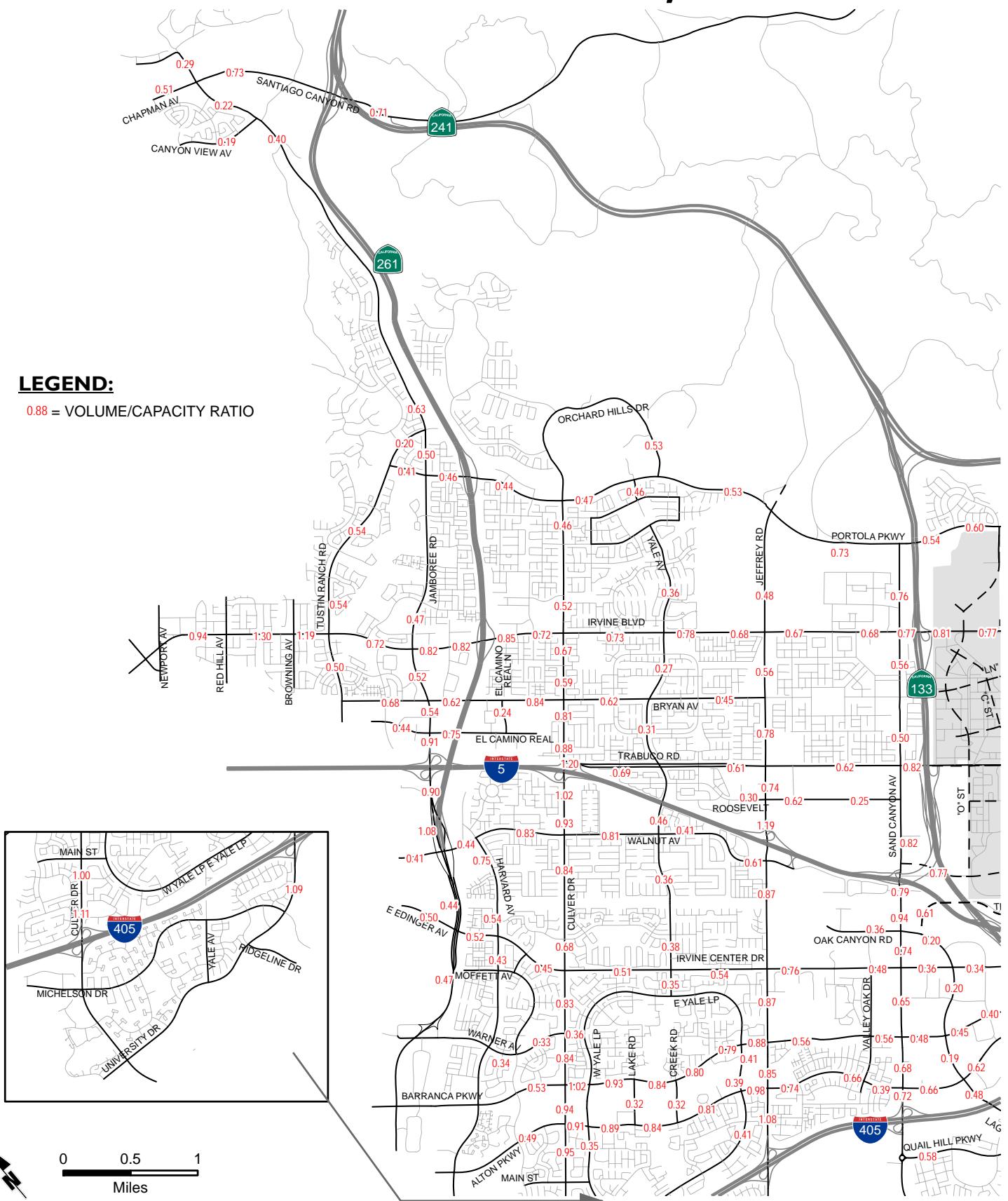


YEAR 2030 ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, PROJECT AREA

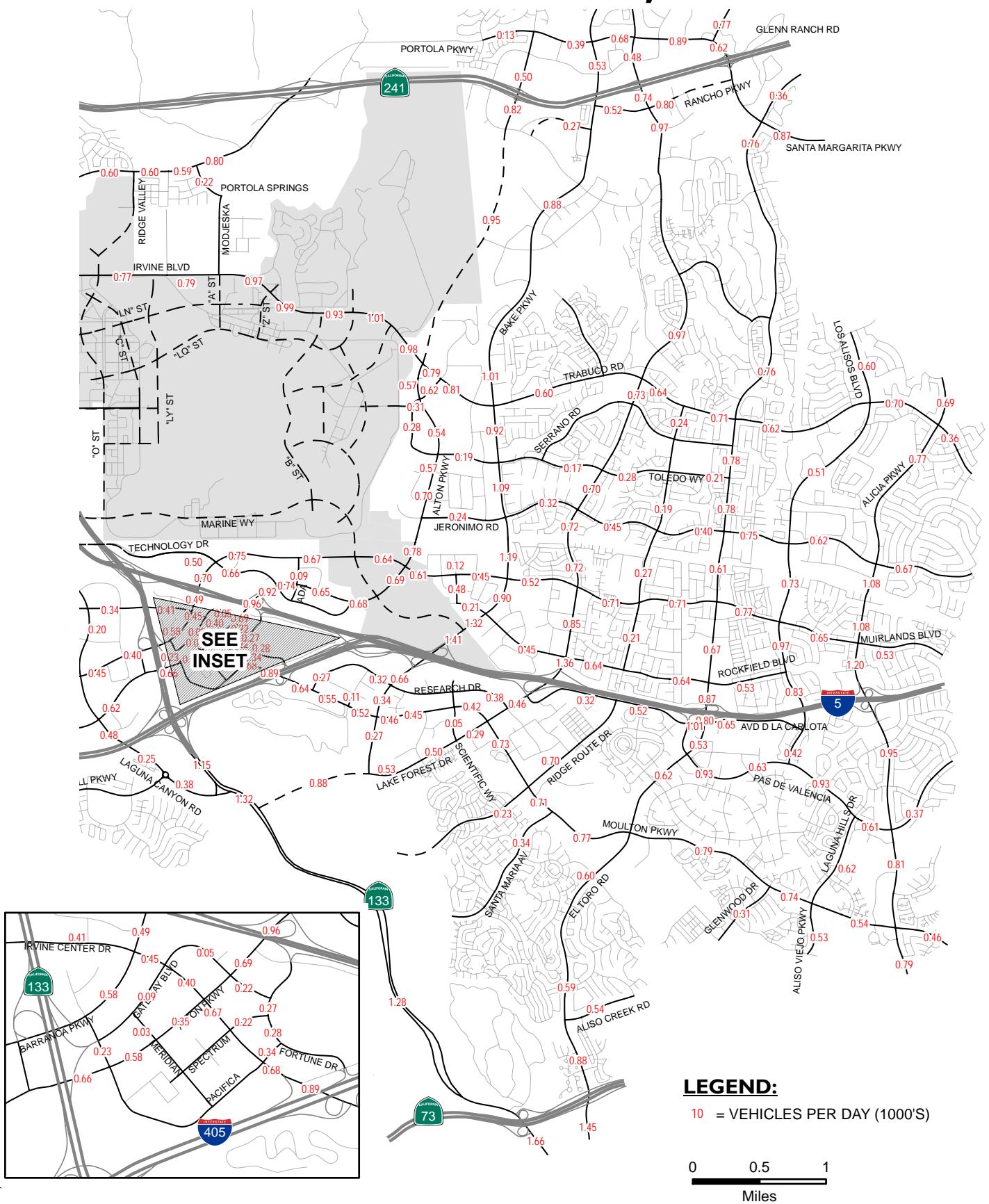


0 1,400 2,800
Feet

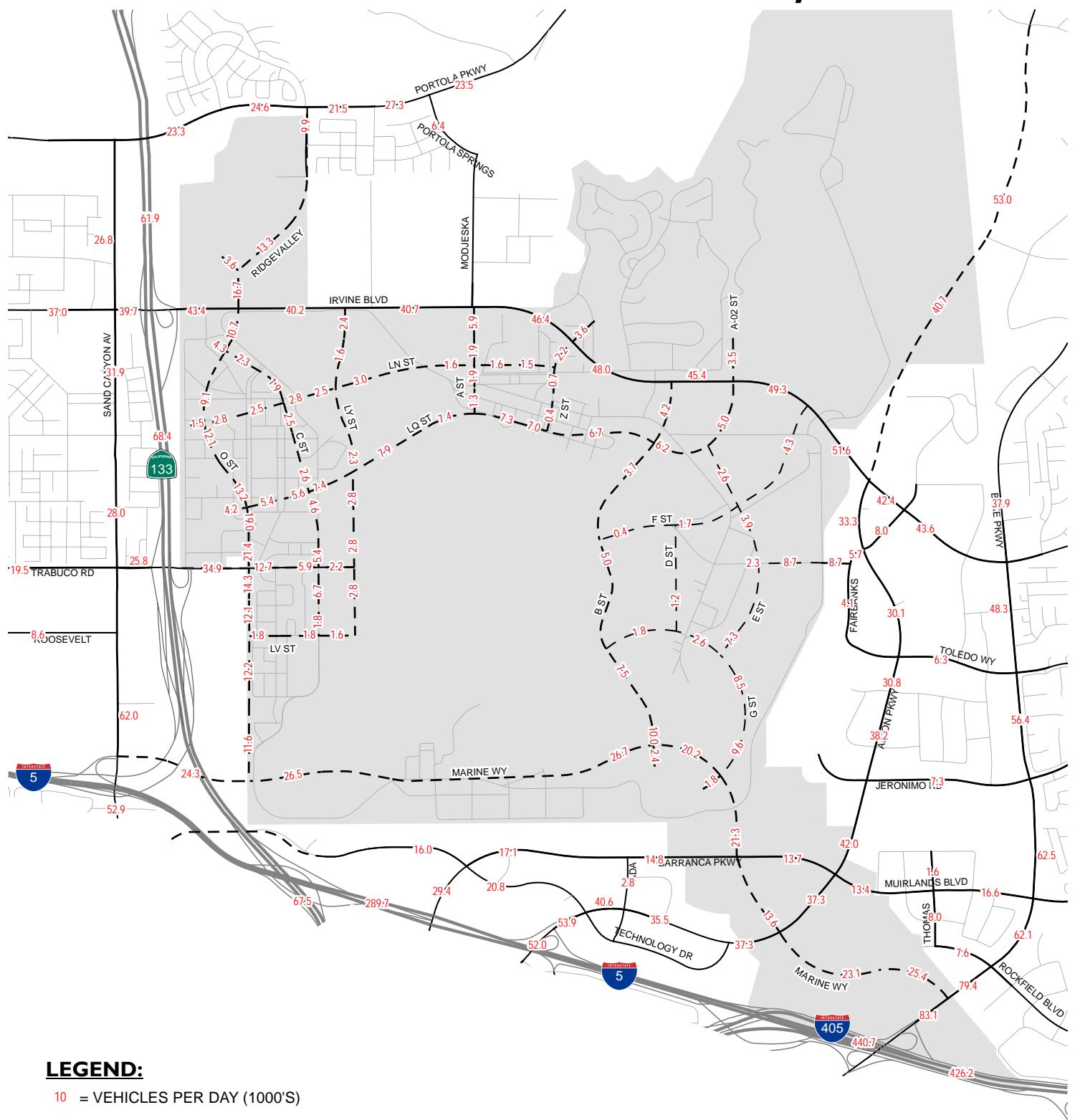
YEAR 2030 ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, WEST STUDY AREA



YEAR 2030 ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, EAST STUDY AREA



POST-2030 ADT VOLUMES WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, PROJECT AREA



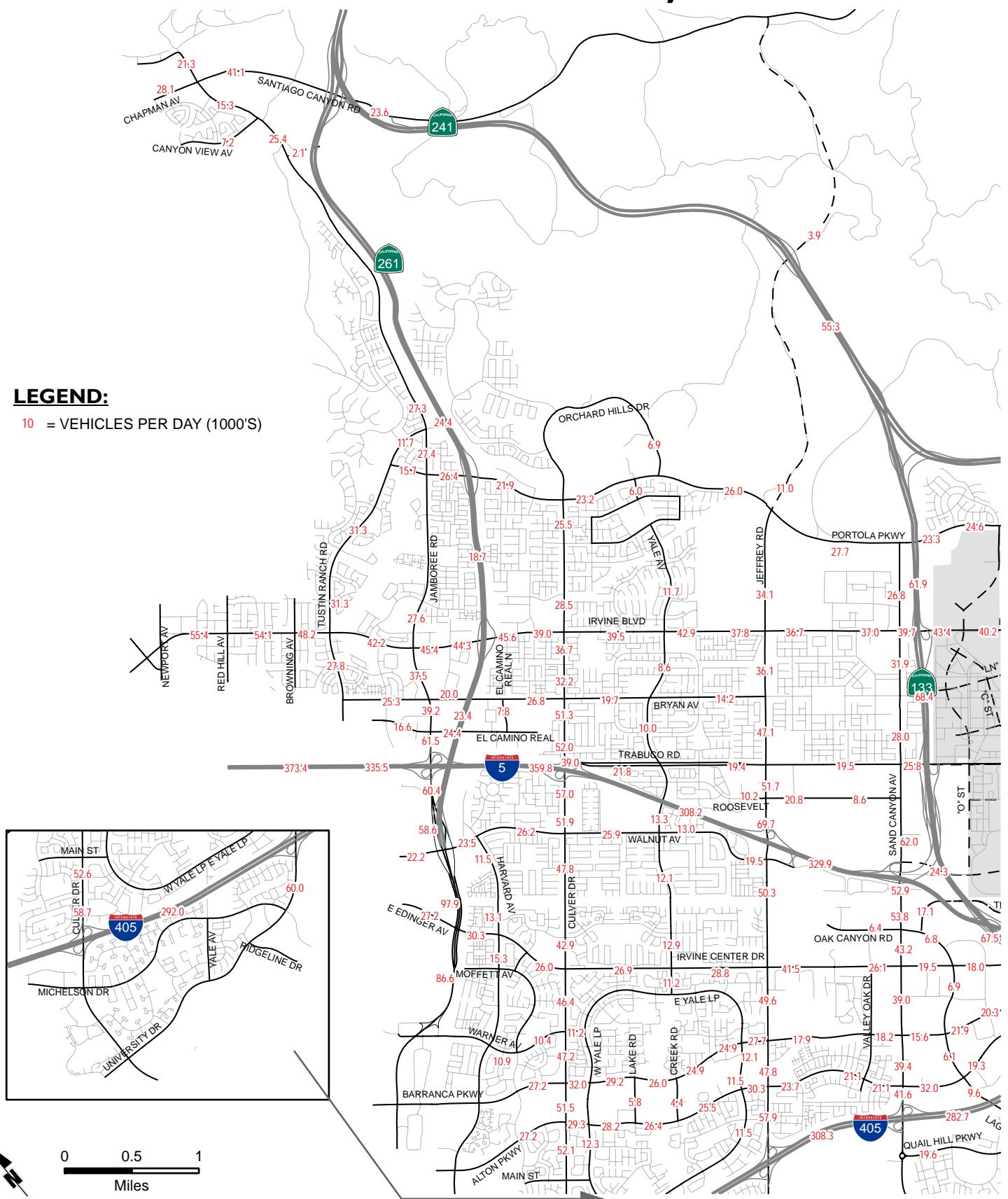
LEGEND:

10 = VEHICLES PER DAY (1000'S)

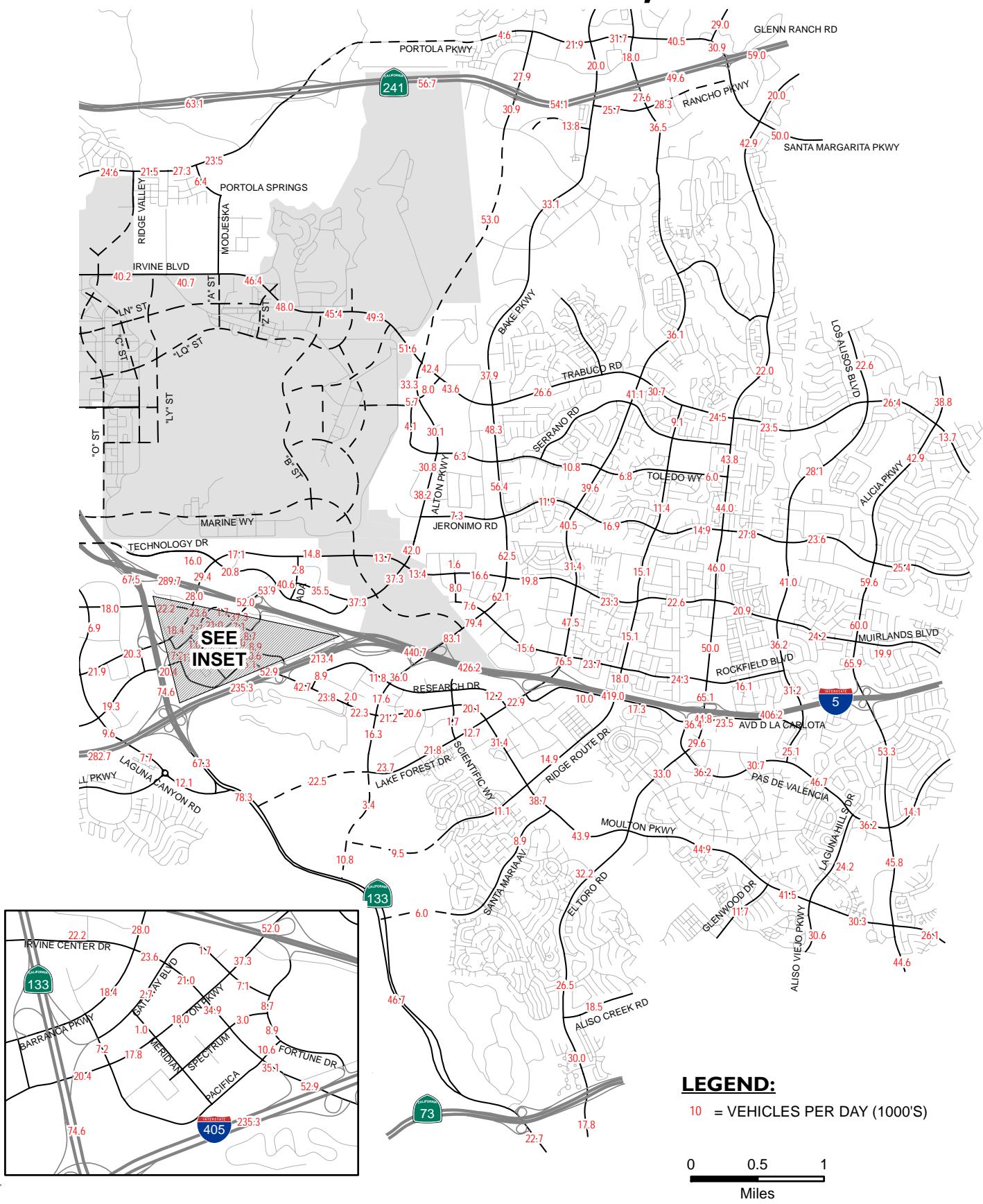


A horizontal scale bar with tick marks at 0, 1,400, and 2,800. The word "Feet" is written below the scale.

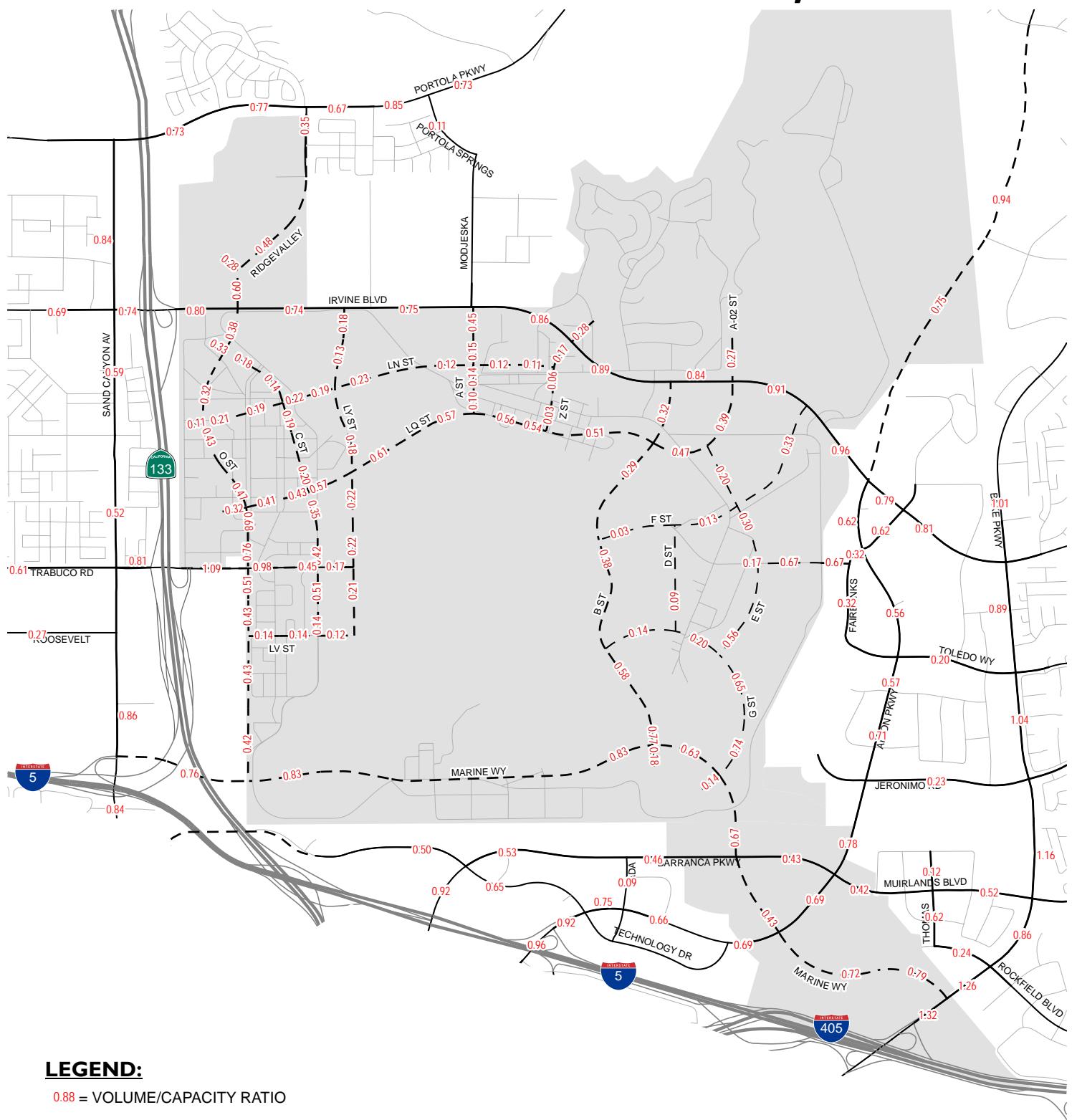
POST-2030 ADT VOLUMES WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, WEST STUDY AREA



POST-2030 ADT VOLUMES WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, EAST STUDY AREA



POST-2030 ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, PROJECT AREA



LEGEND:

0.88 = VOLUME/CAPACITY RATIO



0 1,400 2,800
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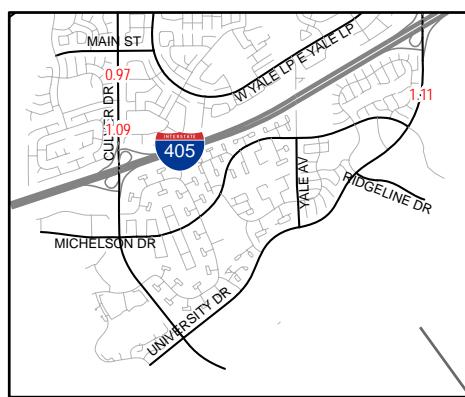
Heritage Fields Project 2012 - GPA/ZC Traffic Study
City of Irvine, CA (JN - 07151:p2030_vc_hs_site.mxd)



POST-2030 ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, WEST STUDY AREA

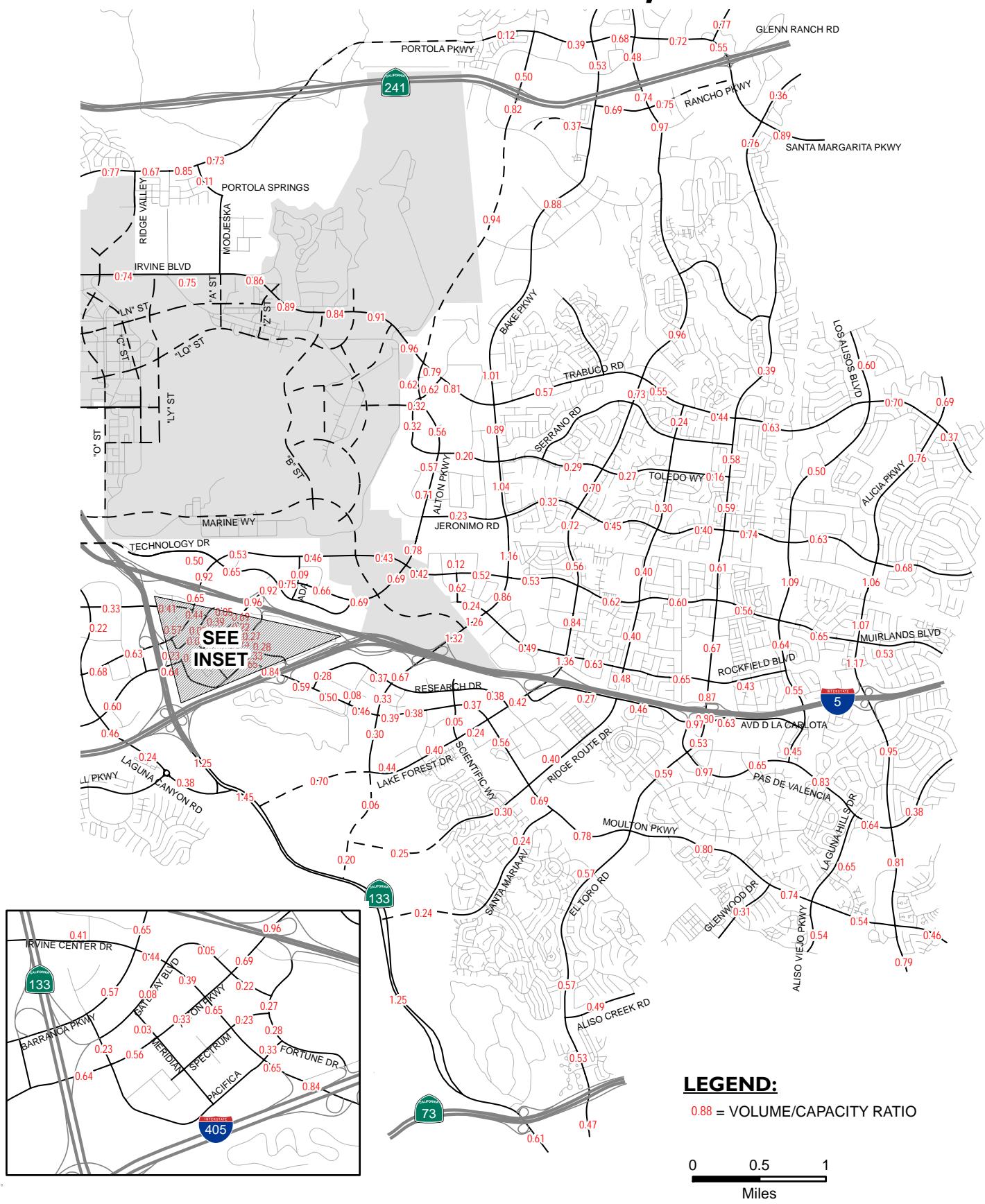
LEGEND:

0.88 = VOLUME/CAPACITY RATIO

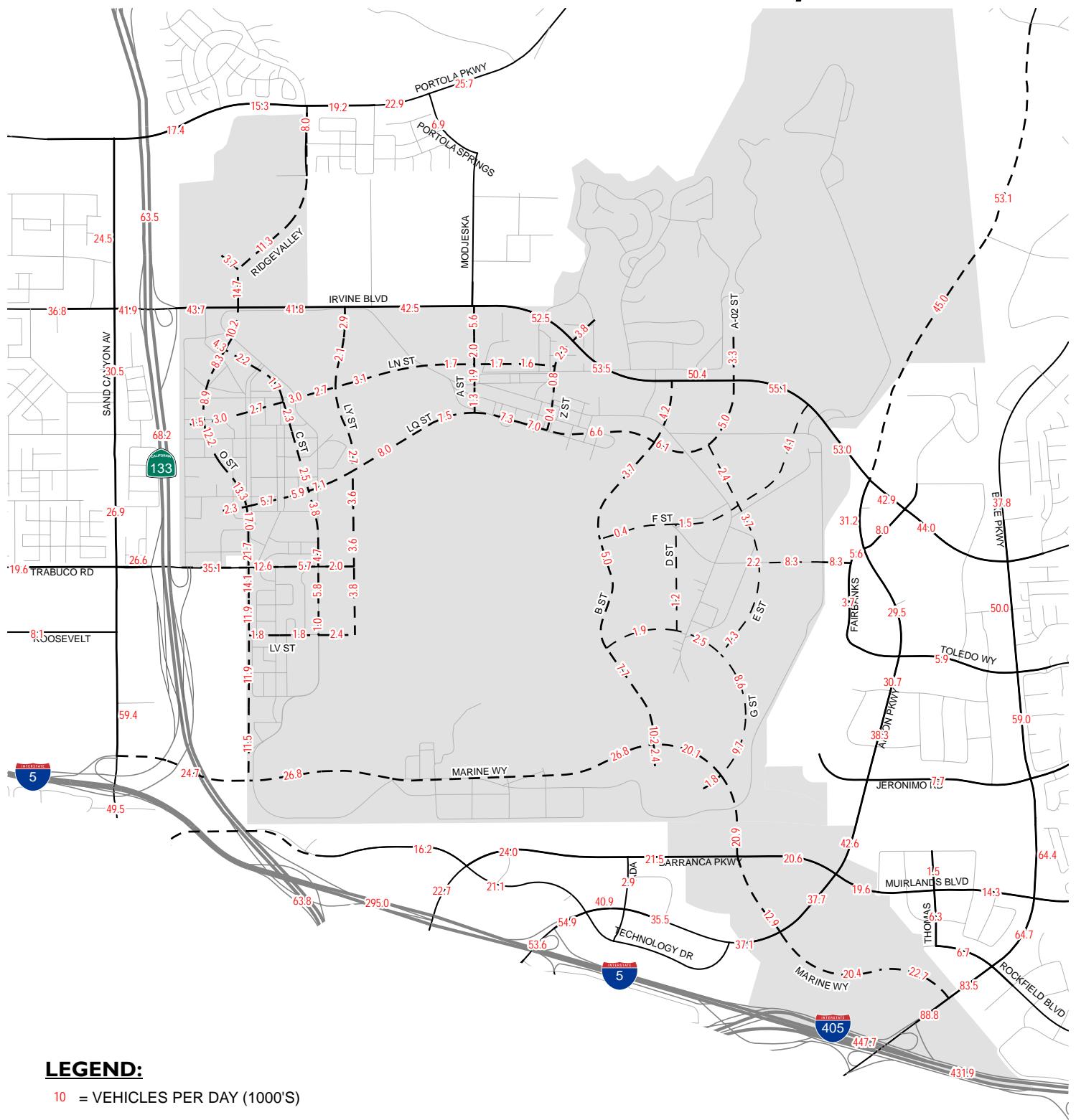


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Miles

POST-2030 ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, EAST STUDY AREA



YEAR 2030 PENDING PROJECTS ADT VOLUMES WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, PROJECT AREA



LEGEND:

10 = VEHICLES PER DAY (1000'S)

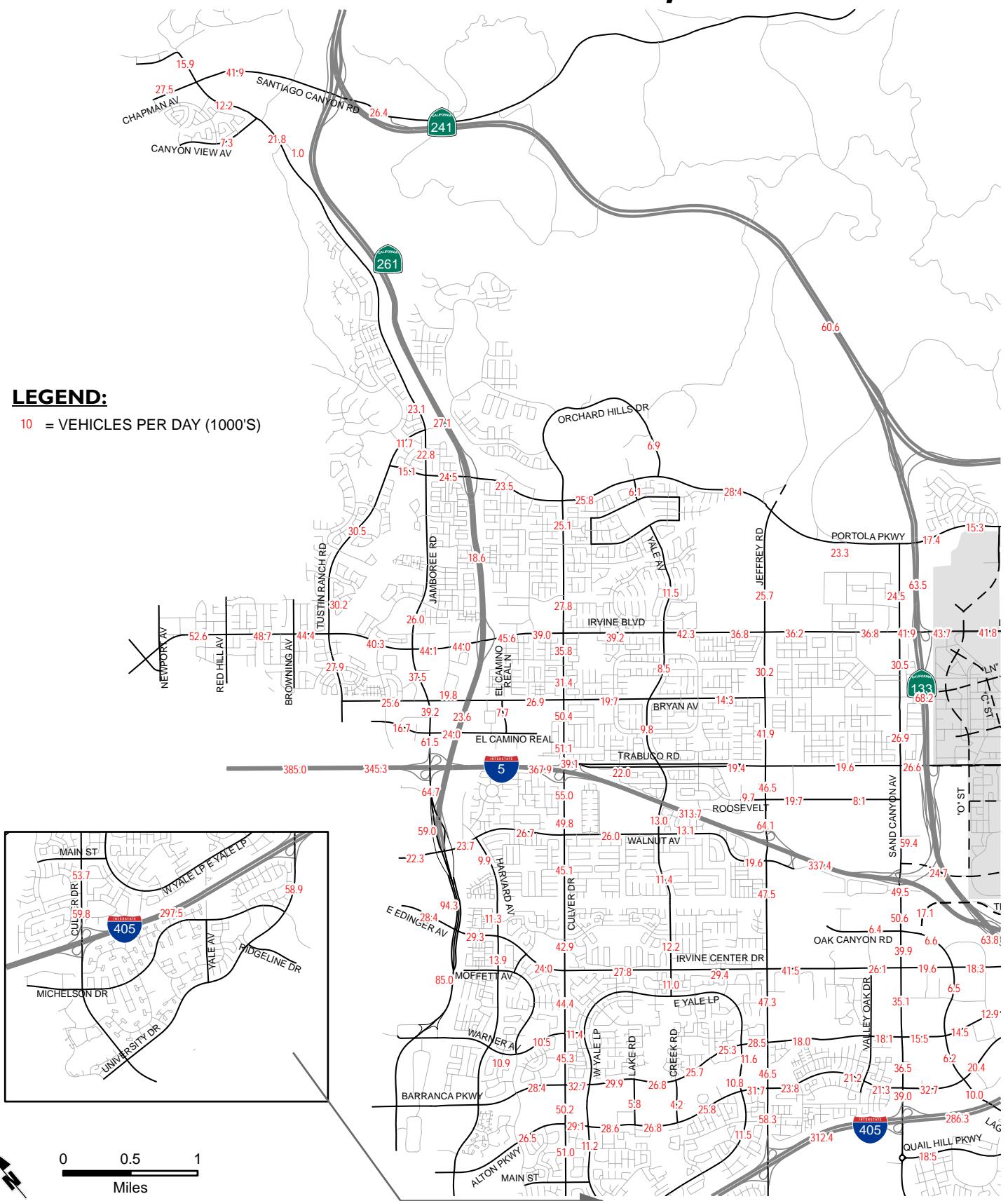


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Feet

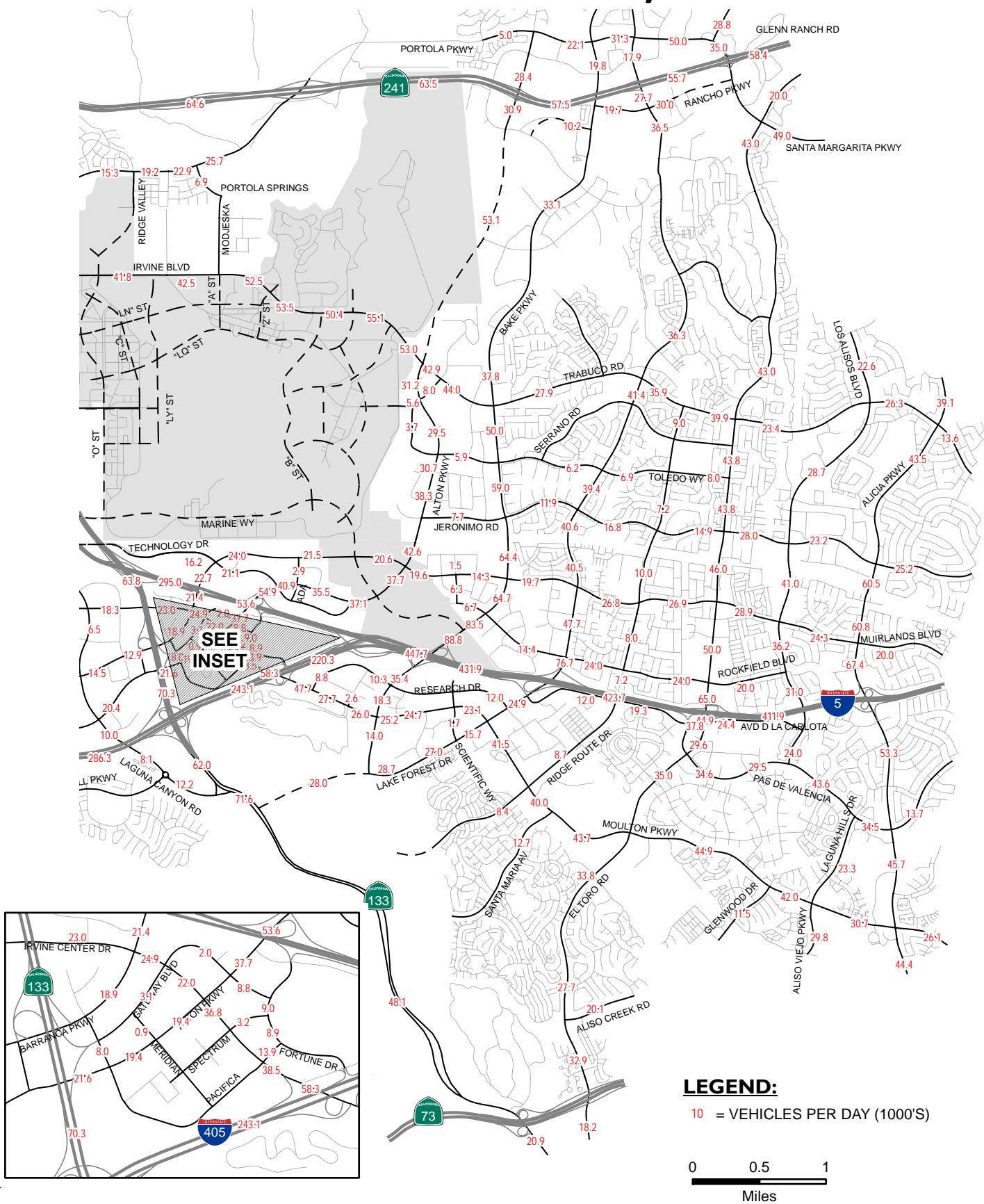
Heritage Fields Project 2012 - GPA/ZC Traffic Study City of Irvine, CA (JN - 07151:pending_2030_adt_hs_site.mxd)



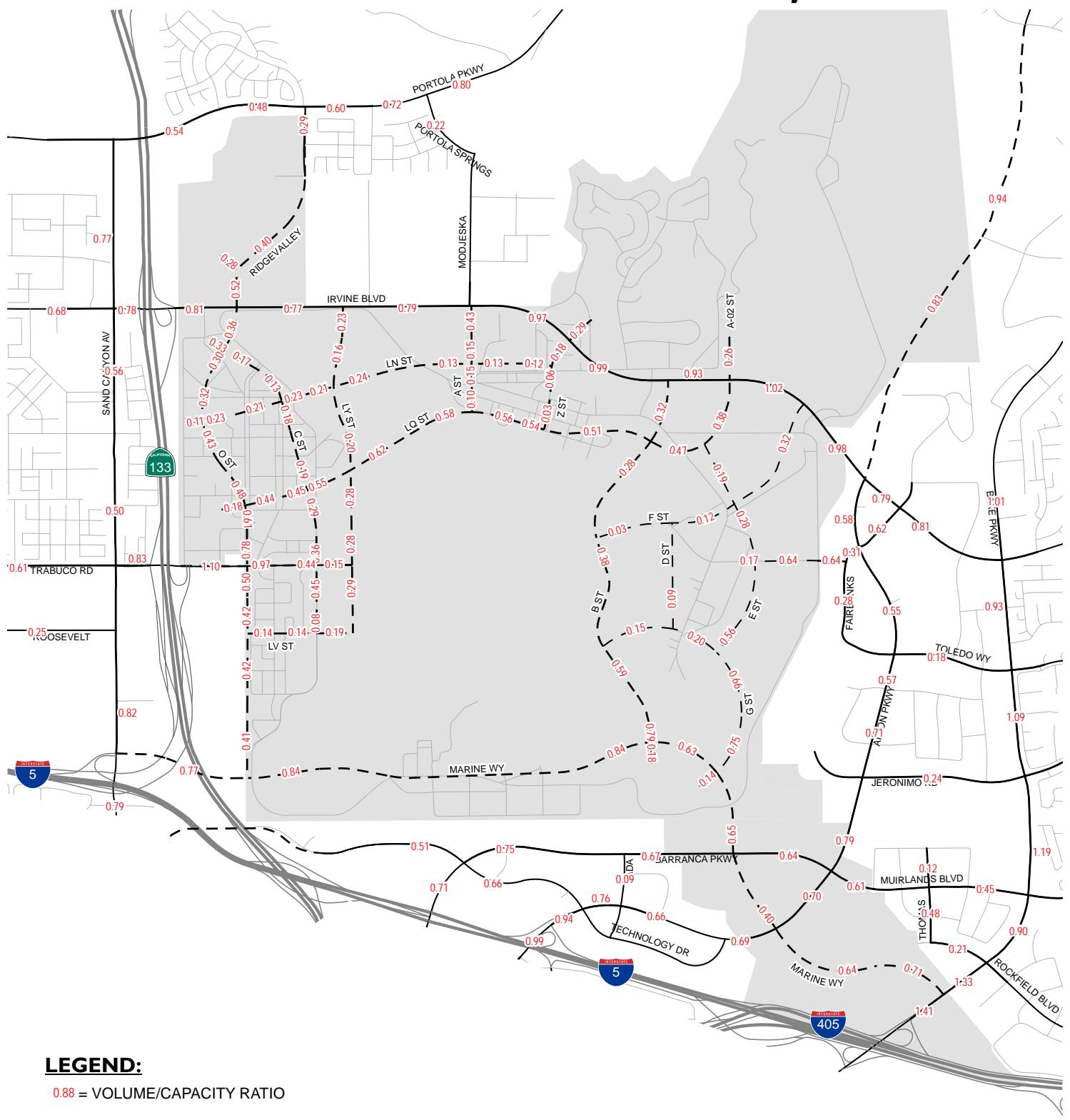
YEAR 2030 PENDING PROJECTS ADT VOLUMES WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, WEST STUDY AREA



YEAR 2030 PENDING PROJECTS ADT VOLUMES WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, EAST STUDY AREA



YEAR 2030 PENDING PROJECTS ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, PROJECT AREA

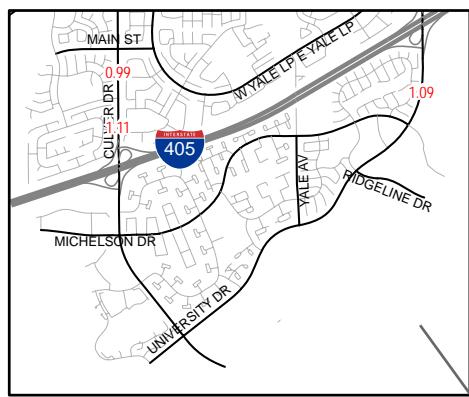


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Feet

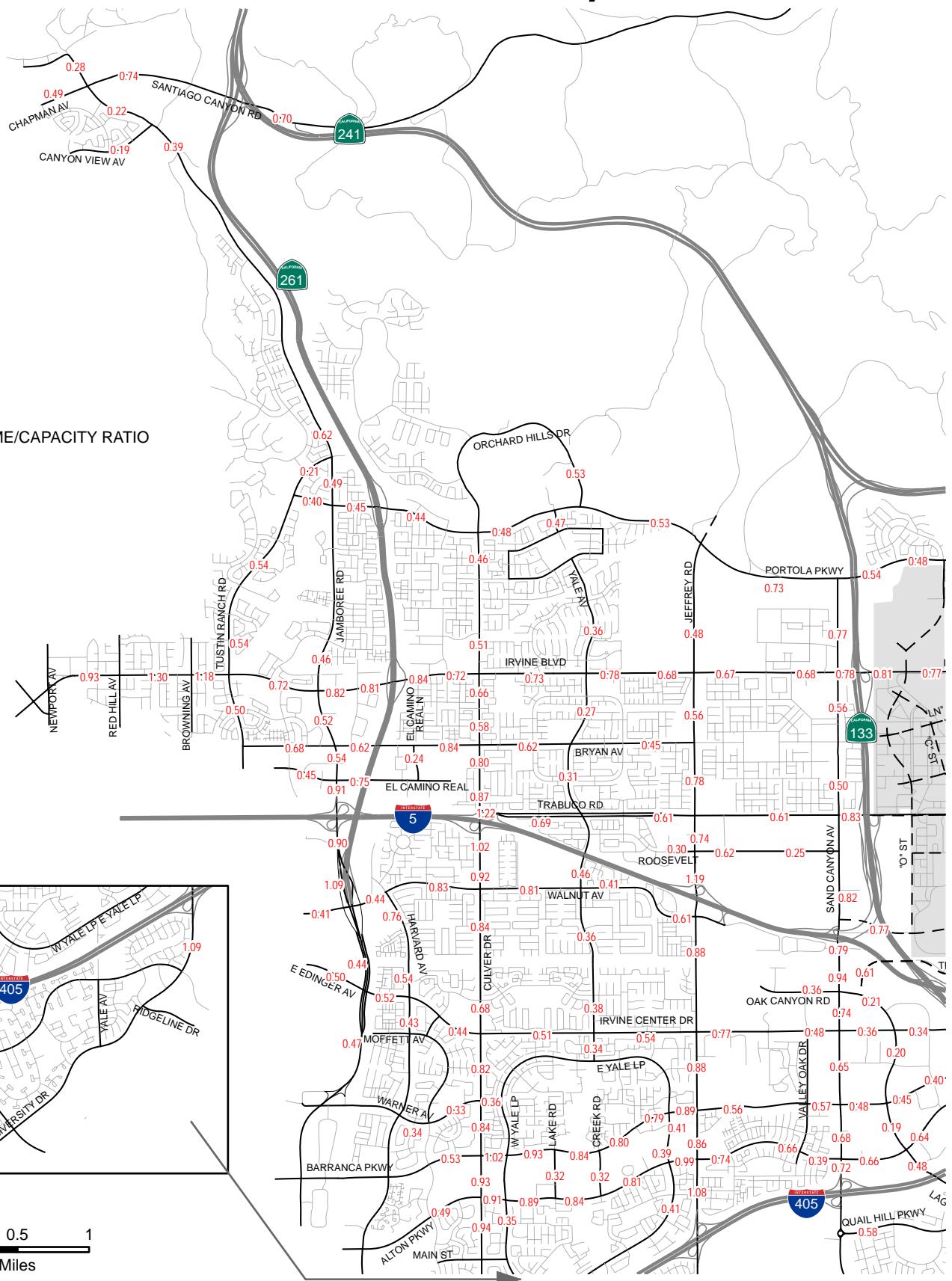
YEAR 2030 PENDING PROJECTS ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, WEST STUDY AREA

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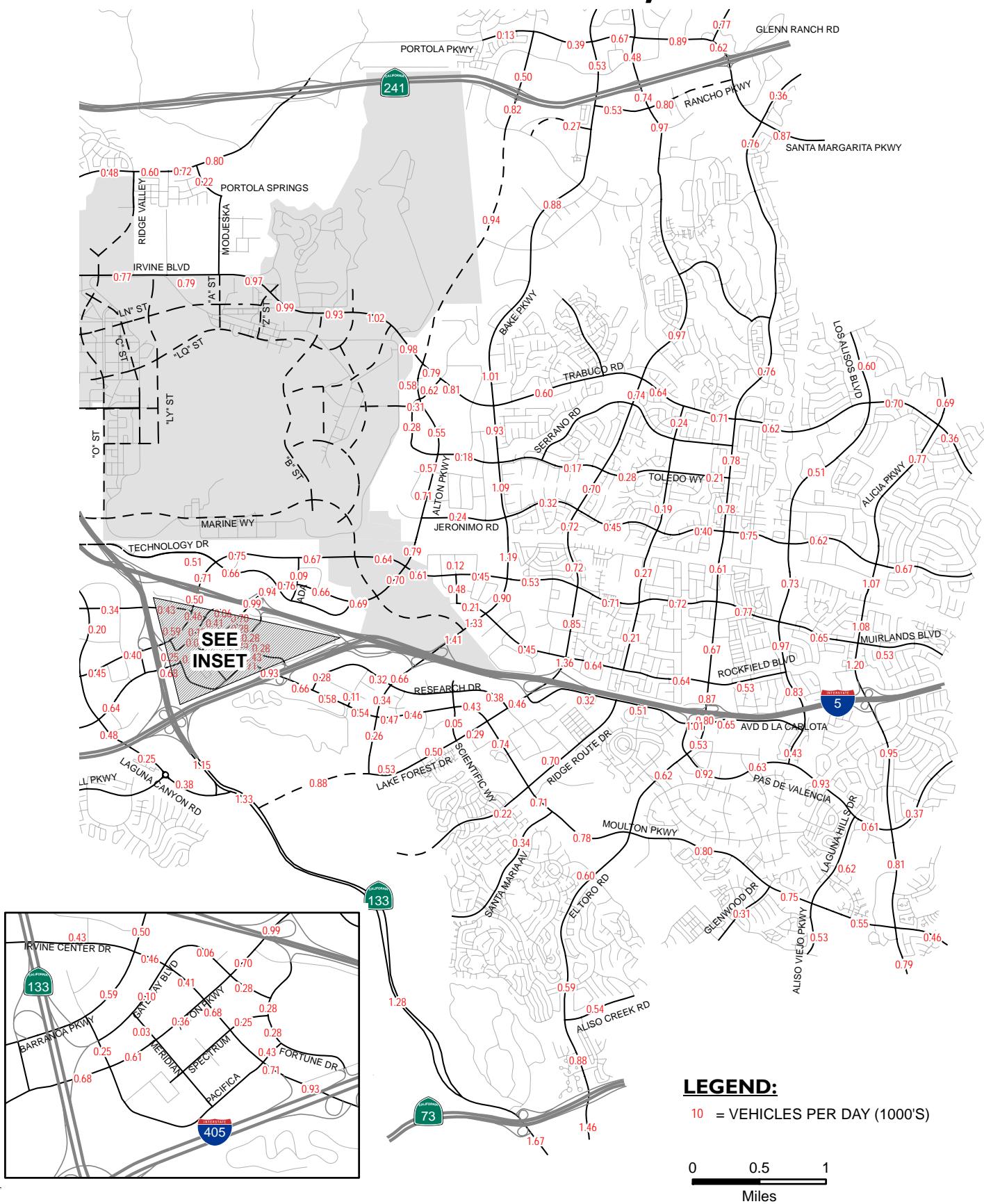
0.88 = VOLUME/CAPACITY RATIO



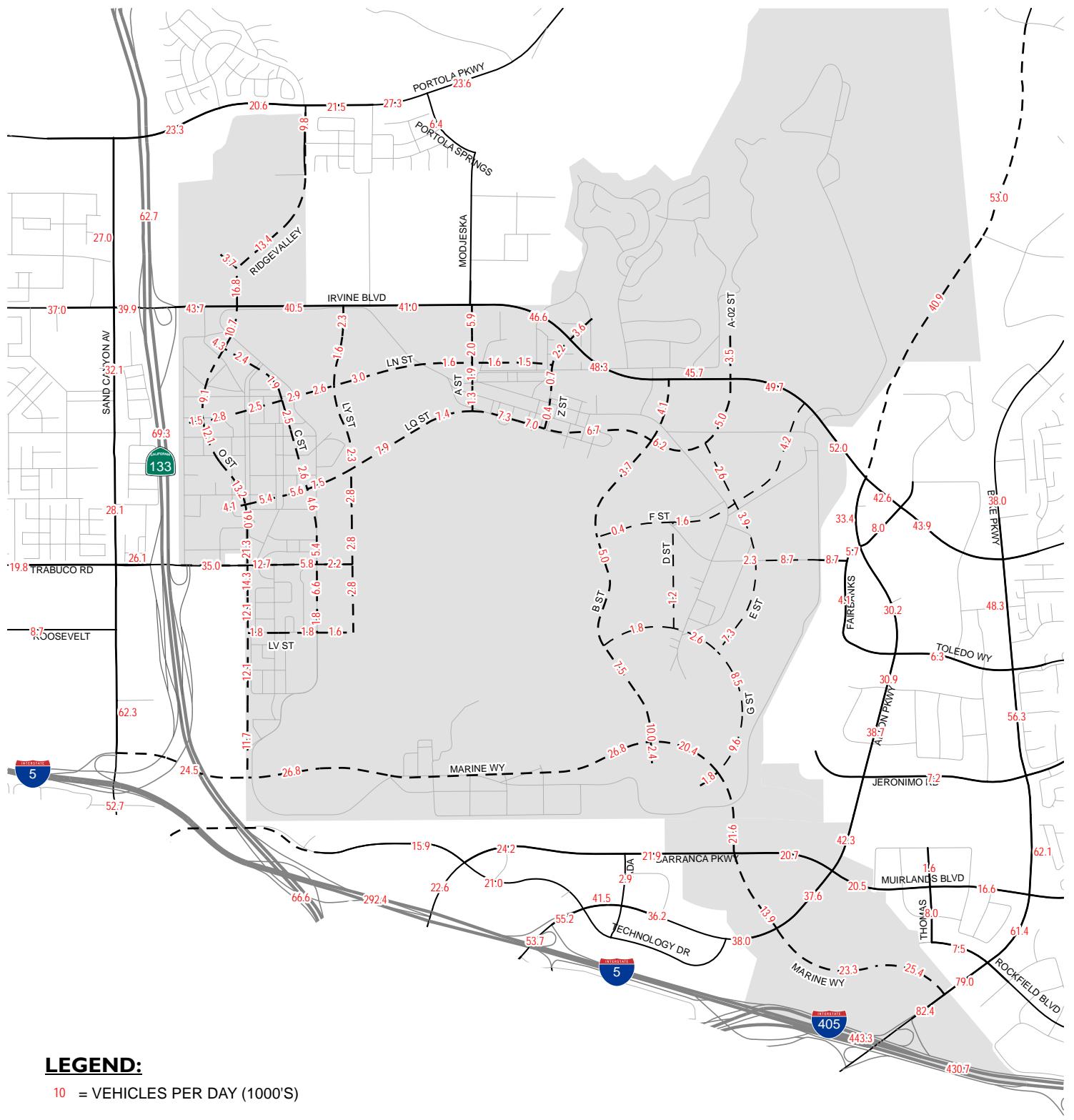
0 0.5 1
Miles



YEAR 2030 PENDING PROJECTS ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL ALTERNATIVE, EAST STUDY AREA



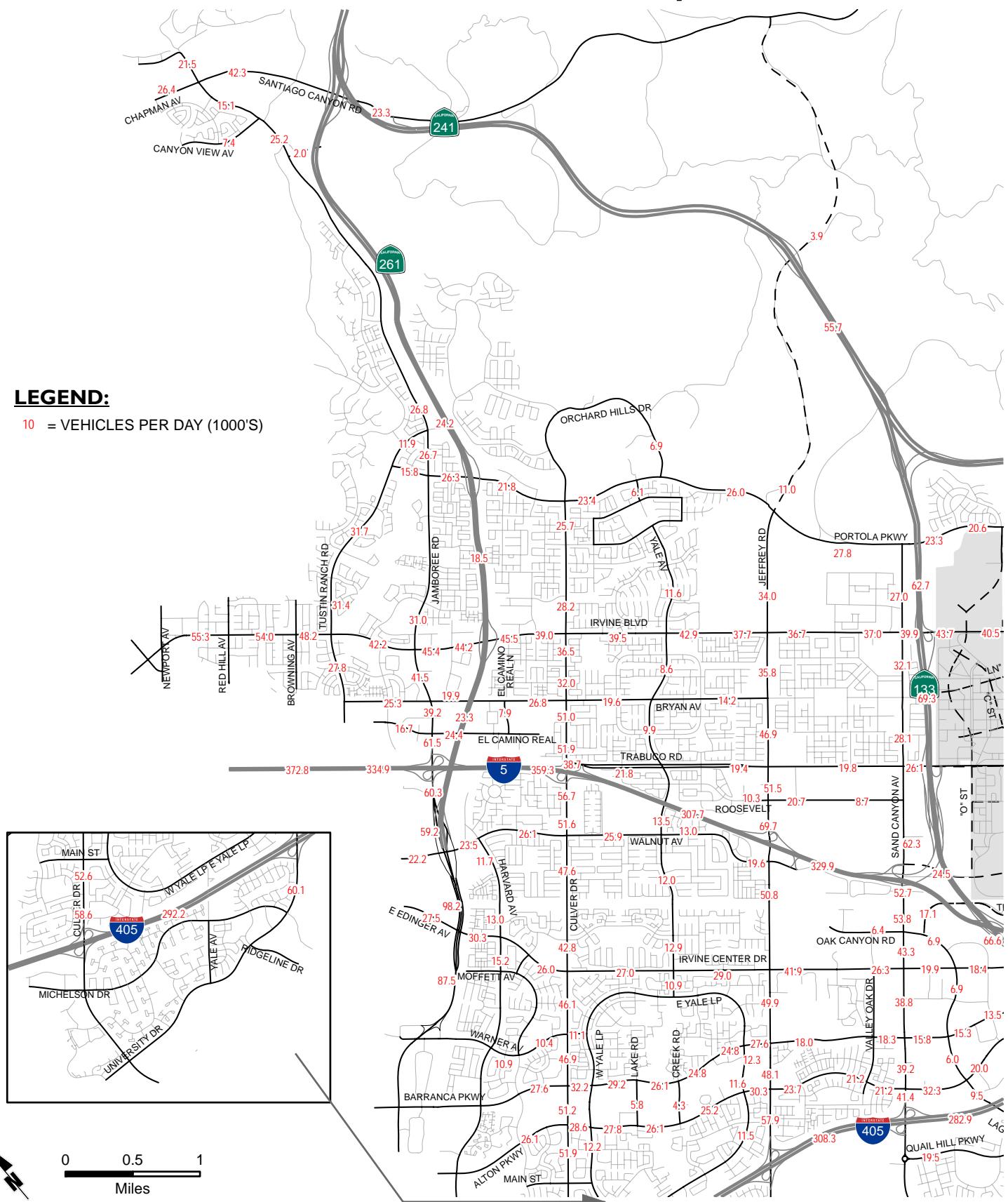
POST-2030 PENDING PROJECTS ADT VOLUMES WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, PROJECT AREA

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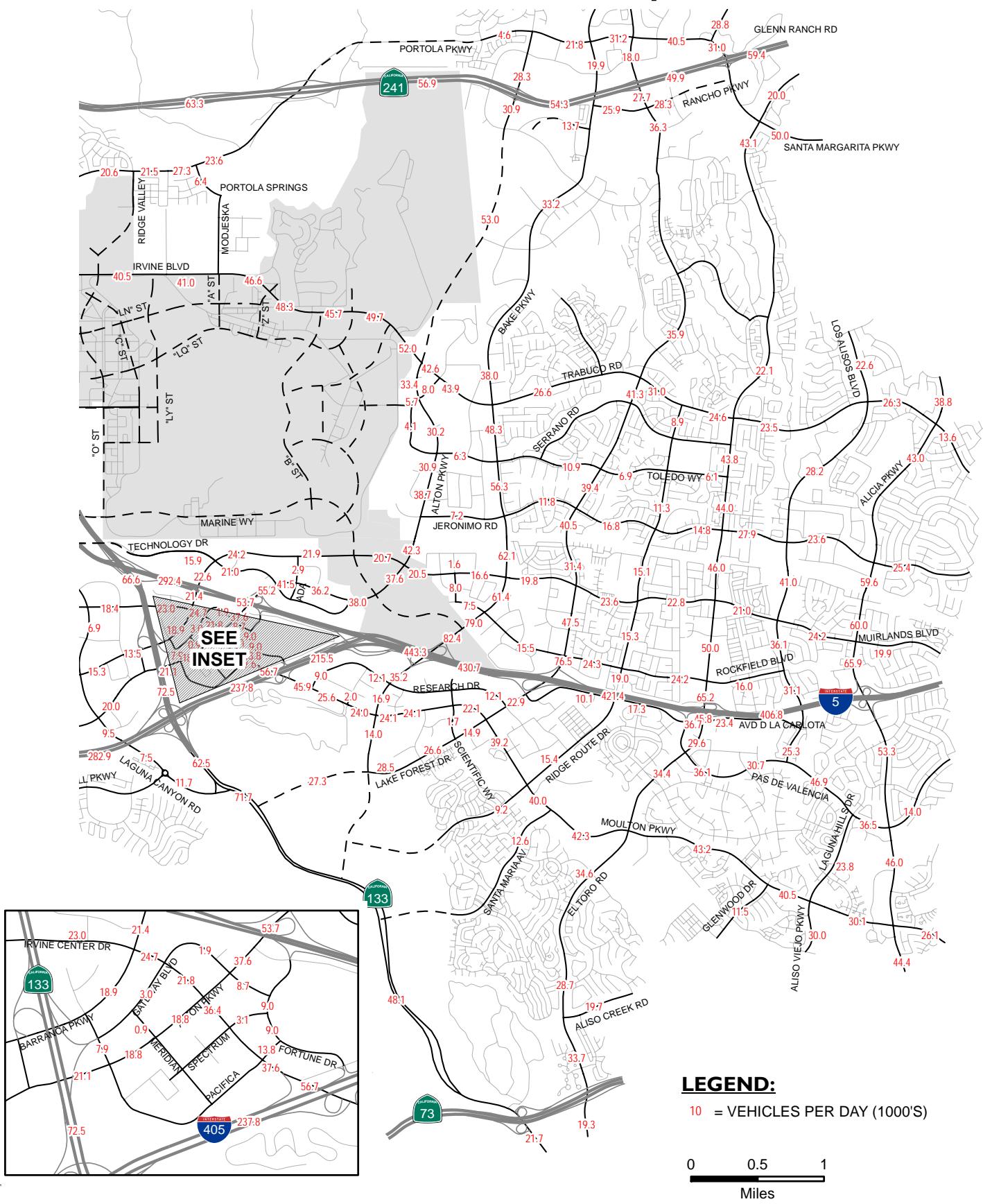
10 = VEHICLES PER DAY (1000'S)

0 1,400 2,800
Feet

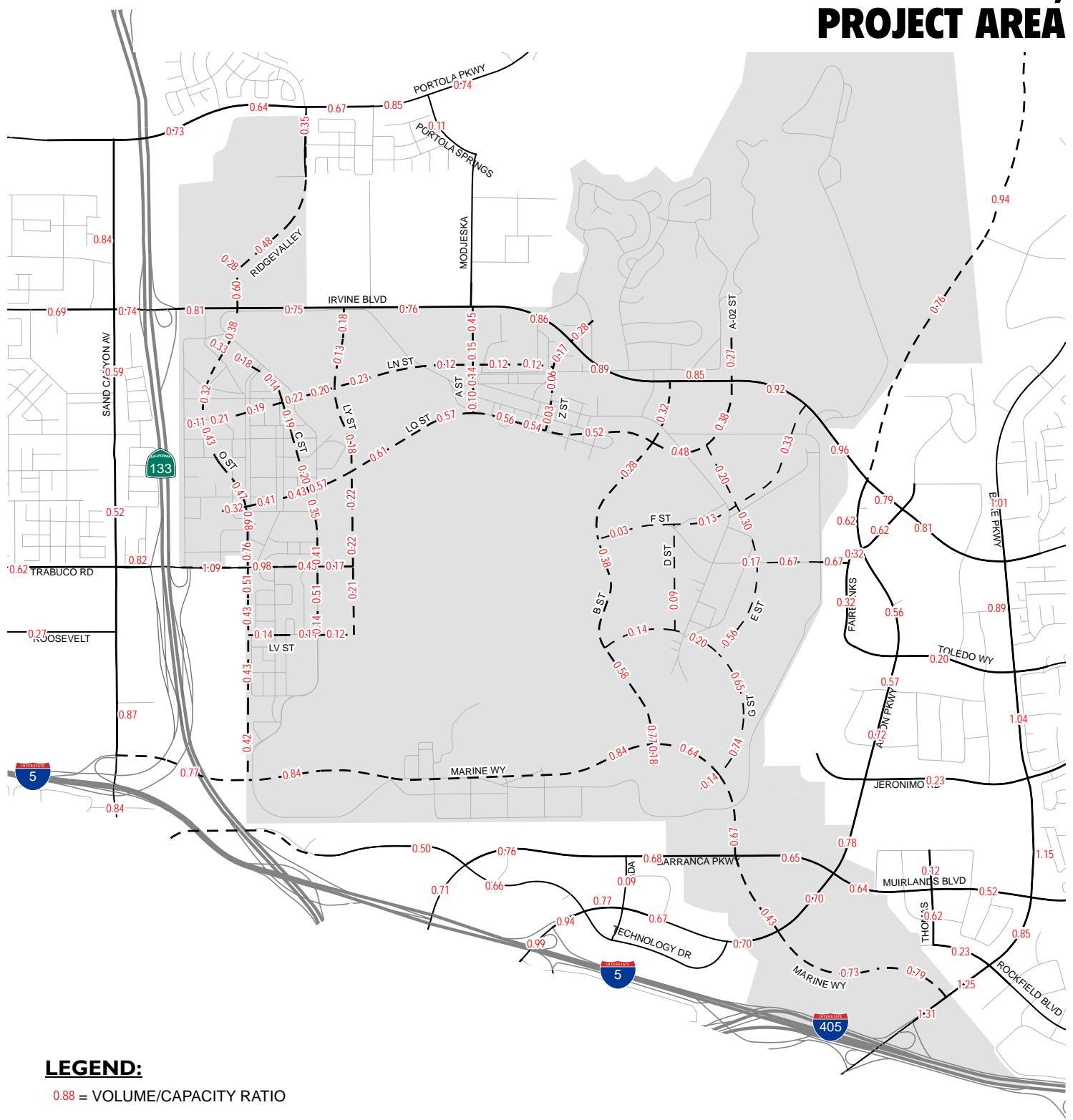
POST-2030 PENDING PROJECTS ADT VOLUMES WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, WEST STUDY AREA



POST-2030 PENDING PROJECTS ADT VOLUMES WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, EAST STUDY AREA

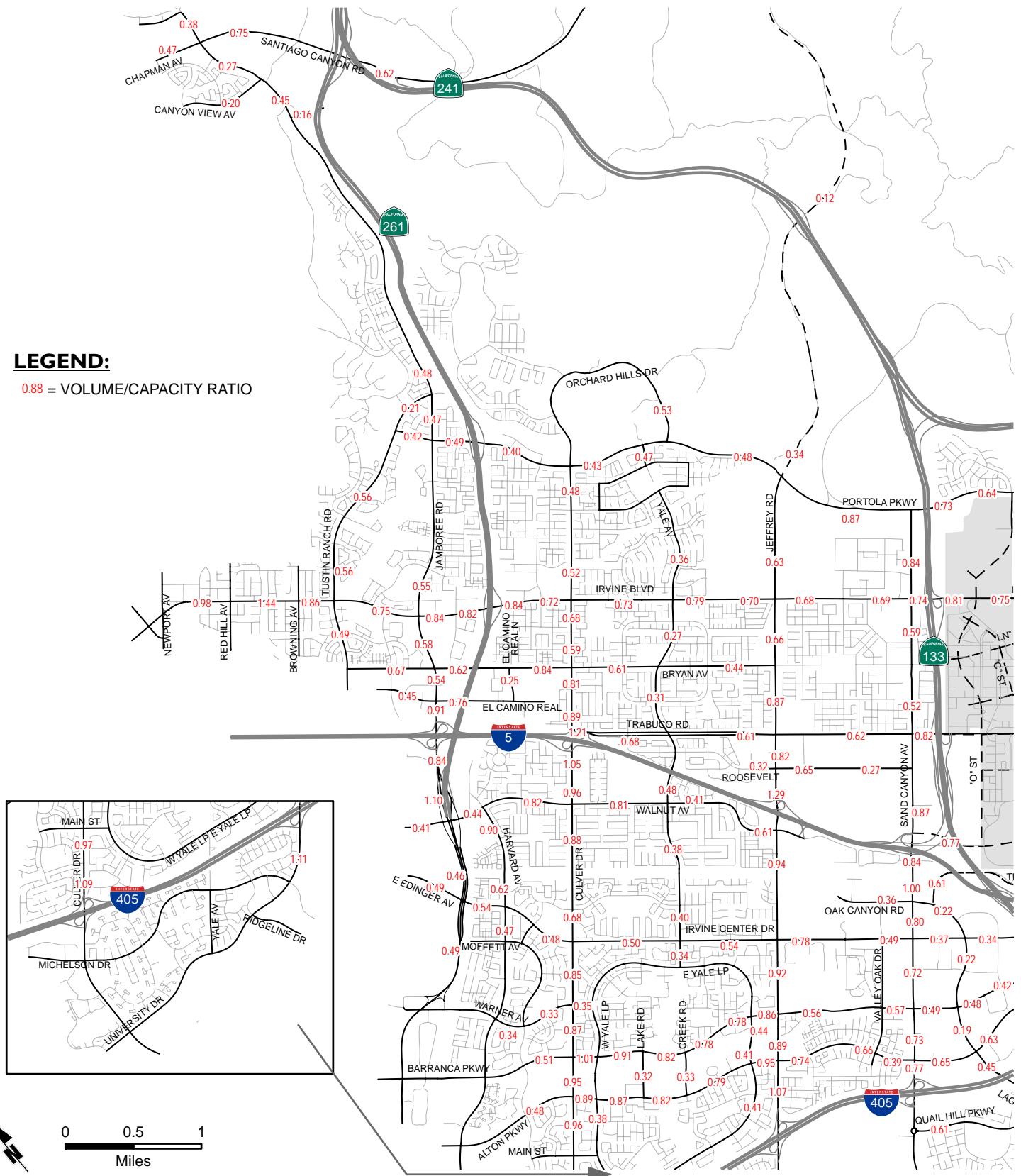


POST-2030 PENDING PROJECTS ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, PROJECT AREA



0 1,400 2,800
Feet

POST-2030 PENDING PROJECTS ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, WEST STUDY AREA



POST-2030 PENDING PROJECTS ADT V/C RATIOS WITH OPTION 2 HIGH SCHOOL LOCATION ALTERNATIVE, EAST STUDY AREA

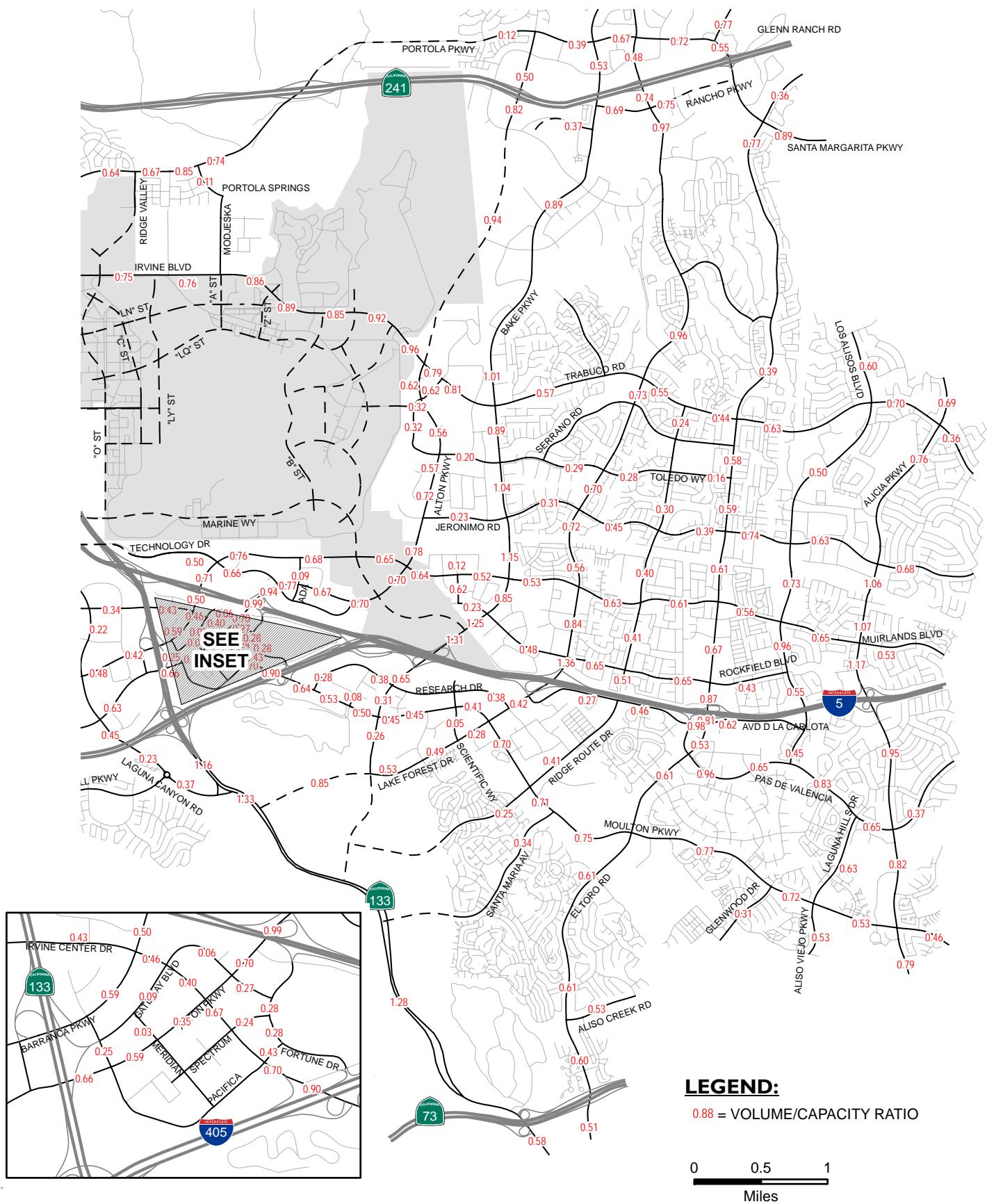


Table 1
Combined PA 51 Land Use Summary by District
2030/Post-2030 Conditions

DISTRICT	BUILDOUT LAND USE QUANTITIES	
	2012 MODIFIED PROJECT - OPTION 2	2012 MODIFIED PROJECT - OPTION 2 - HS ALTERNATIVE
1N	10 TSF Church	10 TSF Church
	5 TSF Child Care	5 TSF Child Care
	258 Multi-Family (DB)	258 Multi-Family (DB)
	494 SFD	494 SFD
	650 Student K-8	650 Student K-8
	759 Multi-Family	759 Multi-Family
	362 Multi-Family	362 Multi-Family
	182 Senior	182 Senior
	360 TSF R&D	360 TSF R&D
	449 TSF Multi-Use	449 TSF Multi-Use
1S	171 Multi-Family (DB)	171 Multi-Family (DB)
	150 TSF Retail	150 TSF Retail
	255.3 TSF Multi-Use	255.3 TSF Multi-Use
2	1,954 TSF R&D	1,954 TSF R&D
3	1,050 TSF R&D	1,050 TSF R&D
4	70 TSF Retail	70 TSF Retail
	494 SFD	494 SFD
	608 Multi-Family	608 Multi-Family
5	1,194 SFD (DB)	1,194 SFD (DB)
	1,690 Multi-Family	2,050 Multi-Family
6	1,722 Multi-Family	1,362 Multi-Family
	577.9 TSF Multi-Use	577.9 TSF Multi-Use
7	692 SFD (DB)	692 SFD (DB)
	148 Multi-Family (DB)	148 Multi-Family (DB)
8	15 TSF Church	15 TSF Church
	6 TSF Child Care	6 TSF Child Care
	484 SFD	484 SFD
	242 Multi-Family	242 Multi-Family
Additional Public Uses	350 Student K-8, District 1 North	350 Student K-8, District 1 North
	1,000 Student K-8, District 5	1,000 Student K-8, District 5
	2,600 Student H.S.	--
	100 Ac Park	100 Ac Park
City/Other Property	90 Ac Agriculture	90 Ac Agriculture
	1,180 Ac Habitat, WLC & Drainage	1,180 Ac Habitat, WLC & Drainage
	263 TSF Warehousing	263 TSF Warehousing
	176 TSF OCTA Facility/Terminal	176 TSF OCTA Facility/Terminal
	1,050 space Trans. Ctr/ Fly-Away	1,050 space Trans. Ctr/ Fly-Away
	300 TSF Cult/Inst	300 TSF Cult/Inst
	--	2,600 Student H.S.
	70.9 TSF Government Facility	70.9 TSF Government Facility
	5,037 Parking (OCGP)	5,037 Parking (OCGP)

Bold = Change in quantity / location of land use between alternatives

Heritage Fields Project 2012 GPA/ZC Traffic Study
 City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 2

2030 / Post-2030 Daily Trip End Summary By District (ITAM 8.4-10 Derived ADT Rates)

DISTRICT	LAND USE	ADT RATE	2012 Modified Project	
			Option 2	Option 2 - HS Alternative
District 8	Res - SFD	8.79	4,254	4,254
District 8	Multi Family	7.15	1,730	1,730
District 8	Child Care	41.93	252	252
District 8	Church, Synagogue	8.14	122	122
District 8	Subtotal		6,358	6,358
District 1 North	Medical and Science (R&D)	10.42	3,751	3,751
District 1 North	Multi Family	7.15	9,860	9,860
District 1 North	Res - SFD	8.79	4,342	4,342
District 1 North	Res - Senior	5.11	930	930
District 1 North	K-8 School (Elementary & Middle), approved	1.24	806	806
District 1 North	Church, Synagogue	8.14	81	81
District 1 North	Child Care	41.93	210	210
District 1 North	Multi-Use (Non-Residential)	12.55	5,635	5,635
District 1 North	Subtotal		25,615	25,615
District 1 South	Multi Family	7.15	1,223	1,223
District 1 South	Retail	54.72	8,208	8,208
District 1 South	Multi-Use (Non-Residential)	12.55	3,204	3,204
District 1 South	Subtotal		12,635	12,635
District 4	Retail	54.72	3,830	3,830
District 4	Multi Family	7.15	4,347	4,347
District 4	Res - SFD	8.79	4,342	4,342
District 4	Subtotal		12,519	12,519
District 7	Res - SFD	8.79	6,083	6,083
District 7	Multi Family	7.15	1,058	1,058
District 7	Subtotal		7,141	7,141
District 5	Multi Family	7.15	12,084	14,658
District 5	Res - SFD	8.79	10,495	10,495
District 5	Subtotal		22,579	25,153
District 6	Multi-Use (Res - Multi Family)	7.15	12,312	9,738
District 6	Multi-Use (Non-Residential)	12.55	7,253	7,253
District 6	Subtotal		19,565	16,991
District 3	Medical and Science (R&D)	10.42	10,941	10,941
District 3	Subtotal		10,941	10,941
District 2	Medical and Science (R&D)	10.42	20,361	20,361
District 2	Subtotal		20,361	20,361
HERITAGE FIELD	SUB TOTAL		137,714	137,714

Table 2 (Cont.)

2030 / Post-2030 Daily Trip End Summary By District (ITAM 8.4-10 Derived ADT Rates)

DISTRICT	LAND USE	ADT RATE	2012 Modified Project	
			Option 2	Option 2 - HS Alternative
District 8	Park	3.59	24	24
District 8	Subtotal		24	24
District 1 North	K-8 School (Elementary & Middle), add'l students	1.24	434	434
District 1 North	Park	3.59	75	75
District 1 North	Subtotal		509	509
District 1 South	Park	3.59	12	12
District 1 South	Subtotal		12	12
District 4	Park	3.59	34	34
District 4	Subtotal		34	34
District 7	Park	3.59	25	25
District 7	Subtotal		25	25
District 5	K-8 School (Elementary & Middle)	1.24	1,240	1,240
District 5	High School	1.24	3,224	0
District 5	Park	3.59	98	110
District 5	Subtotal		4,562	1,350
District 6	Park	3.59	90	78
District 6	Subtotal		90	78
ADDITIONAL PUBLIC USES	SUB TOTAL		5,256	2,032
Marshburn Basin	OS, Habitat, Wildlife Corridor & Drainage	0.1675	5	5
Marshburn Basin	Subtotal		5	5
F	Transportation Center	2.50	938	938
F	Subtotal		938	938
County	Agriculture	2.01	181	181
County	Subtotal		181	181
G / H / L / M	OS, Habitat, Wildlife Corridor & Drainage	0.1675	22	22
G / H / L / M	Subtotal		22	22
L	Parking (GP)	3.742	18,628	18,628
L	High School	1.24	-	3,224
L	Subtotal		18,628	21,852
M	Parking (GP)	3.742	221	221
M	Subtotal		221	221
EL TORO WILDLIFE REFUGE	OS, Habitat, Wildlife Corridor & Drainage	0.1675	163	163
EL TORO WILDLIFE REFUGE	Subtotal		163	163
J	Cultural / Institutional	23.08	6,924	6,924
J	OCTA Facility	6.70	821	821
J	Warehousing	6.29	1,654	1,654
J	Subtotal		9,399	9,399
CIVIC SITE	Government Facility	23.88	1,693	1,693
CIVIC SITE	Subtotal		1,693	1,693
E	Transportation Center	2.50	1,238	1,238
E	Subtotal		1,238	1,238
B	Transportation Center	2.50	450	450
B	OCTA Facility	6.70	358	358
B	Subtotal		808	808
A / B / C / G	OS, Habitat, Wildlife Corridor & Drainage	0.1675	8	8
A / B / C / G	Subtotal		8	8
CITY / OTHER PROPERTY	SUB TOTAL		33,304	36,528
TOTAL			176,274	176,274

Heritage Fields Project 2012 GPA/ZC Traffic Study
 City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 3

2030/Post-2030 Morning Peak Hour Trip Generation Summary By District (ITAM 8.4-10 Derived Trip Generation)

DISTRICT	LAND USE	AM RATE	2012 Modified Project	
			Option 2	Option 2 - HS Alternative
District 8	Res - SFD	0.80	387	387
District 8	Multi Family	0.68	165	165
District 8	Child Care	3.21	19	19
District 8	Church, Synagogue	0.70	11	11
District 8	Subtotal		582	582
District 1 North	Medical and Science (R&D)	0.92	331	331
District 1 North	Multi Family	0.68	938	938
District 1 North	Res - SFD	0.80	395	395
District 1 North	Res - Senior	0.44	80	80
District 1 North	K-8 School (Elementary & Middle), approved	0.18	117	117
District 1 North	Church, Synagogue	0.70	7	7
District 1 North	Child Care	3.21	16	16
District 1 North	Multi-Use (Non-Residential)	1.13	507	507
District 1 North	Subtotal		2,391	2,391
District 1 South	Multi Family	0.68	116	116
District 1 South	Retail	3.39	509	509
District 1 South	Multi-Use (Non-Residential)	1.13	288	288
District 1 South	Subtotal		913	913
District 4	Retail	3.39	237	237
District 4	Multi Family	0.68	413	413
District 4	Res - SFD	0.80	395	395
District 4	Subtotal		1,045	1,045
District 7	Res - SFD	0.80	554	554
District 7	Multi Family	0.68	101	101
District 7	Subtotal		655	655
District 5	Multi Family	0.68	1,149	1,394
District 5	Res - SFD	0.80	955	955
District 5	Subtotal		2,104	2,349
District 6	Multi-Use (Res - Multi Family)	0.68	1,171	926
District 6	Multi-Use (Non-Residential)	1.13	653	653
District 6	Subtotal		1,824	1,579
HERITAGE FIELD PA 51	Subtotal		9,514	9,514
District 3	Medical and Science (R&D)	0.92	966	966
District 3	Subtotal		966	966
District 2	Medical and Science (R&D)	0.92	1,798	1,798
District 2	Subtotal		1,798	1,798
HERITAGE FIELD	SUB TOTAL		12,278	12,278

Table 3 (Cont.)

2030/Post-2030 Morning Peak Hour Trip Generation Summary By District (ITAM 8.4-10 Derived Trip Generation)

DISTRICT	LAND USE	AM RATE	2012 Modified Project	
			Option 2	Option 2 HS Alternative
District 8	Park	0.28	2	2
District 8	Subtotal		2	2
District 1 North	K-8 School (Elementary & Middle), add'l students	0.18	63	63
District 1 North	Park	0.28	6	6
District 1 North	Subtotal		69	69
District 1 South	Park	0.28	1	1
District 1 South	Subtotal		1	1
District 4	Park	0.28	3	3
District 4	Subtotal		3	3
District 7	Park	0.28	2	2
District 7	Subtotal		2	2
District 5	K-8 School (Elementary & Middle)	0.18	180	180
District 5	High School	0.18	468	0
District 5	Park	0.28	8	10
District 5	Subtotal		656	190
District 6	Park	0.28	7	6
District 6	Subtotal		7	6
ADDITIONAL PUBLIC USES	SUB TOTAL		740	273
Marshburn Basin	OS, Habitat, Wildlife Corridor & Drainage	0.0200	1	1
Marshburn Basin	Subtotal		1	1
F	Transportation Center	0.25	94	94
F	Subtotal		94	94
County	Agriculture	0.20	18	18
County	Subtotal		18	18
G / H / L / M	OS, Habitat, Wildlife Corridor & Drainage	0.0200	3	3
G / H / L / M	Subtotal		3	3
L	Parking (GP) TAZs 931, 993-995	0.240	85	85
L	Parking (GP) TAZs 932, 933, 991, 992, 996	0.050	107	107
L	Parking (GP) TAZs 927-929, 977, 978	0.220	546	546
L	High School	0.18	0	468
L	Subtotal		738	1,206
M	Parking (GP)	0.240	14	14
M	Subtotal		14	14
EL TORO WILDLIFE REFUGE	OS, Habitat, Wildlife Corridor & Drainage	0.0200	19	19
EL TORO WILDLIFE REFUGE	Subtotal		19	19
J	Cultural / Institutional	1.69	507	507
J	OCTA Facility	0.67	82	82
J	Warehousing	0.62	163	163
J	Subtotal		752	752
CIVIC SITE	Government Facility	1.87	133	133
CIVIC SITE	Subtotal		133	133
CITY / OTHER PROPERTY PA 51	Subtotal		1,772	1,772
E	Transportation Center	0.25	124	124
E	Subtotal		124	124
B	Transportation Center	0.25	45	45
B	OCTA Facility	0.67	36	36
B	Subtotal		81	81
A / B / C / G	OS, Habitat, Wildlife Corridor & Drainage	0.0200	1	1
A / B / C / G	Subtotal		1	1
CITY / OTHER PROPERTY	SUB TOTAL		1,978	2,446
TOTAL			14,997	14,997

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 4

2030/Post-2030 Evening Peak Hour Trip Generation Summary By District (ITAM 8.4-10 Derived Trip Generation)

DISTRICT	LAND USE	PM RATE	2012 Modified Project	
			Option 2	Option 2 - HS Alternative
District 8	Res - SFD	0.81	392	392
District 8	Multi Family	0.66	160	160
District 8	Child Care	4.04	24	24
District 8	Church, Synagogue	0.79	12	12
District 8	Subtotal		588	588
District 1 North	Medical and Science (R&D)	1.01	364	364
District 1 North	Multi Family	0.66	910	910
District 1 North	Res - SFD	0.81	400	400
District 1 North	Res - Senior	0.47	86	86
District 1 North	K-8 School (Elementary & Middle), approved	0.11	72	72
District 1 North	Church, Synagogue	0.79	8	8
District 1 North	Child Care	4.04	20	20
District 1 North	Multi-Use (Non-Residential)	1.21	543	543
District 1 North	Subtotal		2,403	2,403
District 1 South	Multi Family	0.66	113	113
District 1 South	Retail	5.23	785	785
District 1 South	Multi-Use (Non-Residential)	1.21	309	309
District 1 South	Subtotal		1,207	1,207
District 4	Retail	5.23	366	366
District 4	Multi Family	0.66	401	401
District 4	Res - SFD	0.81	400	400
District 4	Subtotal		1,167	1,167
District 7	Res - SFD	0.81	561	561
District 7	Multi Family	0.66	98	98
District 7	Subtotal		659	659
District 5	Multi Family	0.66	1,115	1,353
District 5	Res - SFD	0.81	967	967
District 5	Subtotal		2,082	2,320
District 6	Multi-Use (Res - Multi Family)	0.66	1,137	899
District 6	Multi-Use (Non-Residential)	1.21	699	699
District 6	Subtotal		1,836	1,598
HERITAGE FIELD PA 51	Subtotal		9,942	9,942
District 3	Medical and Science (R&D)	1.01	1,061	1,061
District 3	Subtotal		1,061	1,061
District 2	Medical and Science (R&D)	1.01	1,974	1,974
District 2	Subtotal		1,974	1,974
HERITAGE FIELD	SUB TOTAL		12,977	12,977

Table 4 (Cont.)

2030/Post-2030 Evening Peak Hour Trip Generation Summary By District (ITAM 8.4-10 Derived Trip Generation)

DISTRICT	LAND USE	PM RATE	2012 Modified Project	
			Option 2	Option 2 HS Alternative
District 8	Park	0.35	2	2
District 8	Subtotal		2	2
District 1 North	K-8 School (Elementary & Middle), add'l students	0.11	39	39
District 1 North	Park	0.35	7	7
District 1 North	Subtotal		46	46
District 1 South	Park	0.35	1	1
District 1 South	Subtotal		1	1
District 4	Park	0.35	3	3
District 4	Subtotal		3	3
District 7	Park	0.35	2	2
District 7	Subtotal		2	2
District 5	K-8 School (Elementary & Middle)	0.11	110	110
District 5	High School	0.11	286	0
District 5	Park	0.35	10	12
District 5	Subtotal		406	122
District 6	Park	0.35	9	8
District 6	Subtotal		9	8
ADDITIONAL PUBLIC USES	SUB TOTAL		469	184
Marshburn Basin	OS, Habitat, Wildlife Corridor & Drainage	0.0200	1	1
Marshburn Basin	Subtotal		1	1
F	Transportation Center	0.24	90	90
F	Subtotal		90	90
County	Agriculture	0.19	17	17
County	Subtotal		17	17
G / H / L / M	OS, Habitat, Wildlife Corridor & Drainage	0.0200	3	3
G / H / L / M	Subtotal		3	3
L	Parking (GP) TAZs 931, 993-995	0.360	128	128
L	Parking (GP) TAZs 932, 933, 991, 992, 996	0.890	1,906	1,906
L	Parking (GP) TAZs 927-929, 977, 978	0.360	893	893
L	High School	0.11	0	286
L	Subtotal		2,927	3,213
M	Parking (GP)	0.360	21	21
M	Subtotal		21	21
EL TORO WILDLIFE REFUGE	OS, Habitat, Wildlife Corridor & Drainage	0.0200	19	19
EL TORO WILDLIFE REFUGE	Subtotal		19	19
J	Cultural / Institutional	2.22	666	666
J	OCTA Facility	0.65	80	80
J	Warehousing	0.61	160	160
J	Subtotal		906	906
CIVIC SITE	Government Facility	2.30	163	163
CIVIC SITE	Subtotal		163	163
CITY / OTHER PROPERTY PA 51	Subtotal		4,147	4,147
E	Transportation Center	0.24	119	119
E	Subtotal		119	119
B	Transportation Center	0.24	43	43
B	OCTA Facility	0.65	35	35
B	Subtotal		78	78
A / B / C / G	OS, Habitat, Wildlife Corridor & Drainage	0.0200	1	1
A / B / C / G	Subtotal		1	1
CITY / OTHER PROPERTY	SUB TOTAL		4,345	4,631
TOTAL			17,792	17,792

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 5**2030 Option 2 High School Alternative Arterial Roadway Peak Hour Analysis Summary**

Segment	Segment Limits	Juris	2030 with 2012 Modified Project Option 2 - HS Alternative					
			# of Lanes	Peak Hour Capacity	Refined ADT	Highest Peak Volume	Peak Hour V/C	Peak Hour LOS
Bake Pkwy.	b/w Rockfield Bl. and Marine Wy.	Irv	8D	6,400	83,300	4,022 (AM Northbound)	0.63	B
Irvine Bl.	b/w A St. and Z St.	Irv	6D	4,800	52,400	3,005 (PM Westbound)	0.63	B
Irvine Bl.	b/w Z St. and B St.	Irv	6D	4,800	53,300	3,048 (PM Westbound)	0.64	B
Trabuco Rd.	b/w SR-133 and O St.	Irv	4D	3,200	35,000	1,664 (PM Eastbound)	0.52	A
Jeffrey Rd.	b/w Roosevelt and I-5 NB Ramps	Irv	6D	4,800	64,100	3,356 (AM Southbound)	0.70	B
Alton Pkwy.	e/o Culver Dr.	Irv	4D	3,200	29,200	1,729 (AM Westbound)	0.54	A

*Heritage Fields Project 2012 GPA/ZC Traffic Study**City of Irvine, CA (JN:07151-12.1 Report Tables)*

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Table 6

**ITAM 8.4-10 2030 Baseline ICU Comparison
With Approved Project (Baseline) and With Modified Project, Option 2 HS Alternative**

ID	Intersection	Juris	Funded NITM ¹	ATMS App.	LOS E OK	2011 Approved Project				2012 Modified Project - HS Alt.			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
16	Newport Av at Irvine Bl	Tus				0.81	D	0.92	E	0.79	C	0.94	E
34	Red Hill Av at Irvine Bl	Tus/OC		Yes		0.75	C	0.85	D	0.76	C	0.86	D
54	Browning Av at Irvine Bl	Tus/OC				1.00	E	0.88	D	1.03	F	0.88	D
91	Tustin Ranch Rd at Irvine Bl	Tus	F	Yes		0.81	D	0.87	D	0.80	C	0.86	D
123	Jamboree Rd at Tustin Ranch Rd	Tus	P			0.74	C	0.66	B	0.78	C	0.67	B
124	Jamboree Rd at Portola Pw	Tus				0.67	B	0.62	B	0.71	C	0.64	B
125	Jamboree Rd at Irvine Bl	Tus	F		Yes	0.81	D	0.75	C	0.84	D	0.77	C
126	Jamboree Rd at Bryan Av	Tus				0.72	C	0.62	B	0.71	C	0.63	B
127	Jamboree Rd at El Camino Real	Tus				0.72	C	0.68	B	0.72	C	0.70	B
128	Jamboree Rd at I-5 NB Ramps	Irv/Tus				0.66	B	0.71	C	0.67	B	0.71	C
129	Jamboree Rd at I-5 SB Ramps	Irv				0.67	B	0.65	B	0.68	B	0.64	B
131	Jamboree Rd SB at Walnut Av	Irv				0.47	A	0.56	A	0.46	A	0.57	A
132	Jamboree Rd NB at Walnut Av	Irv				0.50	A	0.74	C	0.48	A	0.73	C
133	Jamboree Rd at Edinger Av	Tus			Yes	0.51	A	0.69	B	0.50	A	0.68	B
135	Jamboree Rd NB at Warner Av	Irv				0.42	A	0.41	A	0.43	A	0.42	A
136	Jamboree Rd at Barranca Pw	Irv			Yes	0.90	D	0.96	E	0.89	D	0.97	E
157	SR-261 SB Ramps at Portola Pw	Irv				0.43	A	0.49	A	0.44	A	0.50	A
158	SR-261 NB Ramps at Portola Pw	Irv				0.45	A	0.41	A	0.48	A	0.42	A
159	SR-261 SB Ramps at Irvine Bl	Irv				0.62	B	0.54	A	0.60	A	0.54	A
160	SR-261 NB Ramps at Irvine Bl	Irv				0.71	C	0.66	B	0.73	C	0.66	B
218	Culver Dr at Portola Pk	Irv				0.71	C	0.67	B	0.73	C	0.69	B
220	Culver Dr at Irvine Bl	Irv				0.79	C	0.88	D	0.81	D	0.88	D
221	Culver Dr at Bryan Av	Irv				0.89	D	0.74	C	0.91	E	0.74	C
222	Culver Dr at Trabuco Rd	Irv	F			0.77	C	0.78	C	0.76	C	0.77	C
223	Culver Dr at I-5 SB Ramps	Irv	F			0.60	A	0.68	B	0.61	B	0.69	B
224	Culver Dr at Walnut Av	Irv	F			0.82	D	0.87	D	0.84	D	0.87	D
226	Culver Dr at ICD	Irv				0.77	C	0.74	C	0.78	C	0.74	C
227	Culver Dr at Warner Av	Irv				0.80	C	0.63	B	0.82	D	0.64	B
228	Culver Dr at Barranca Pw	Irv	P			0.91	E	0.78	C	0.93	E	0.78	C
229	Culver Dr at Alton Pkwy	Irv				0.83	D	0.86	D	0.85	D	0.88	D
232	Culver Dr at I-405 NB Ramps	Irv				0.83	D	0.73	C	0.84	D	0.74	C
233	Culver Dr at I-405 SB Ramps	Irv				0.62	B	0.66	B	0.62	B	0.67	B
235	Culver Dr at University	Irv	F			0.71	C	0.82	D	0.71	C	0.82	D
249	Yale Av at Irvine Bl	Irv	F			0.74	C	0.88	D	0.76	C	0.89	D
252	Yale Av at Bryan Av	Irv				0.48	A	0.44	A	0.49	A	0.46	A
255	Yale Av at Trabuco Rd	Irv				0.62	B	0.52	A	0.63	B	0.52	A
259	Yale Av at Walnut Av	Irv				0.60	A	0.71	C	0.63	B	0.73	C
261	Yale Av at ICD	Irv				0.70	B	0.69	B	0.70	B	0.69	B
264	W Yale Lp at Barranca Pw	Irv				0.65	B	0.62	B	0.67	B	0.63	B
267	E Yale Lp at Barranca Pw	Irv				0.71	C	0.67	B	0.72	C	0.68	B
268	W Yale Loop at Alton Pw	Irv				0.65	B	0.63	B	0.67	B	0.65	B
271	E Yale Lp at Alton Pw	Irv				0.76	C	0.70	B	0.75	C	0.69	B
282	Jeffrey Rd at Portola Pw	Irv				0.63	B	0.61	B	0.62	B	0.59	A
283	Jeffrey Rd at Irvine Bl	Irv				0.68	B	0.67	B	0.70	B	0.67	B
284	Jeffrey Rd at Bryan Av	Irv				0.70	B	0.64	B	0.71	C	0.65	B
285	Jeffrey Rd at Trabuco Rd	Irv				0.65	B	0.72	C	0.65	B	0.73	C
286	Jeffrey Rd at Roosevelt	Irv				0.86	D	0.85	D	0.89	D	0.85	D
287	Jeffrey Rd at I-5 NB Ramps	Irv				0.68	B	0.79	C	0.70	B	0.80	C
288	Jeffrey Rd at Walnut Av	Irv	F			0.76	C	0.77	C	0.76	C	0.78	C
289	Jeffrey Rd at ICD	Irv	F			0.83	D	0.77	C	0.83	D	0.78	C

Table 6 (Cont.)

ITAM 8.4-10 2030 Baseline ICU Comparison
With Approved Project (Baseline) and With Modified Project, Option 2 HS Alternative

ID	Intersection	Juris	Funded NITM ¹	ATMS App.	LOS E OK	2011 Approved Project				2012 Modified Project - HS Alt.			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
290	Jeffrey Rd at Barranca Pw	Irv	P			0.90	D	0.80	C	0.92	E	0.78	C
291	Jeffrey Rd at Alton Pw	Irv	F	Yes		0.93	E	0.79	C	0.95	E	0.79	C
293	Jeffrey Rd at I-405 NB Ramps	Irv	P			0.74	C	0.88	D	0.75	C	0.88	D
294	University Dr at I-405 SB Ramps	Irv				0.63	B	0.70	B	0.64	B	0.70	B
300	Sand Canyon Av at Portola Pw	Irv				0.40	A	0.56	A	0.42	A	0.56	A
301	Sand Canyon Av at Irvine Bl	Irv				0.74	C	0.75	C	0.74	C	0.73	C
302	Sand Canyon Av at Trabuco Pw	Irv	F			0.76	C	0.78	C	0.77	C	0.77	C
303	Sand Canyon Av at I-5 NB Ramps/Marine Wy	Irv	F			0.84	D	0.83	D	0.90	D	0.95	E
305	Sand Canyon Av at I-5 SB Ramps	Irv	F			0.83	D	0.81	D	0.84	D	0.84	D
306	Sand Canyon Av at Oak Canyon	Irv	F			0.79	C	0.91	E	0.78	C	0.93	E
307	Sand Canyon Av at ICD	Irv				0.60	A	0.62	B	0.59	A	0.63	B
309	Sand Canyon Av at Barranca Pw	Irv				0.55	A	0.57	A	0.55	A	0.58	A
310	Sand Canyon Av at Alto	Irv	F			0.66	B	0.73	C	0.66	B	0.73	C
311	Sand Canyon Av at I-405 NB Ramps	Irv	F			0.59	A	0.42	A	0.59	A	0.41	A
312	Sand Canyon Av at I-405 SB Ramps	Irv				0.87	D	0.61	B	0.88	D	0.62	B
313	Laguna Canyon Rd at ICD	Irv				0.36	A	0.42	A	0.36	A	0.42	A
314	Laguna Canyon Rd at Barranca Pw	Irv				0.41	A	0.42	A	0.42	A	0.41	A
315	Laguna Canyon Rd at Alton Pw	Irv				0.56	A	0.59	A	0.56	A	0.60	A
316	SR-133 SB Ramps at Irvine Bl	Irv				0.55	A	0.61	B	0.55	A	0.61	B
317	SR-133 NB Ramps at Irvine Bl	Irv				0.75	C	0.72	C	0.70	B	0.76	C
318	Banting at Barranca Pkwy	Irv				0.66	B	0.52	A	0.68	B	0.53	A
319	Banting at Alton Pw	Irv				0.58	A	0.55	A	0.58	A	0.55	A
321	Laguna Canyon Rd at Old Laguna Canyon Rd	Irv	F			0.87	D	0.77	C	0.87	D	0.79	C
322	Laguna Canyon Rd at SR-73 NB Ramps	LB			Yes	0.99	E	0.65	B	0.98	E	0.65	B
323	Laguna Canyon Rd at SR-73 SB Ramps	LB			Yes	0.35	A	0.41	A	0.36	A	0.40	A
324	Portola Pw at SR-241 NB Ramps	Irv				0.27	A	0.19	A	0.27	A	0.19	A
325	Portola Pw at SR-241 SB Ramps	Irv				0.27	A	0.31	A	0.26	A	0.31	A
327	Barranca Pw at Technology	Irv	P			0.59	A	0.82	D	0.60	A	0.80	C
328	Barranca Pw at I-5 HOV Ramp	Irv			Yes	0.66	B	0.44	A	0.64	B	0.44	A
329	Barranca Pw at ICD	Irv			Yes	0.68	B	0.67	B	0.67	B	0.68	B
330	Barranca Pw at Pacifica	Irv			Yes	0.60	A	0.76	C	0.60	A	0.76	C
333	Pacifica at Gateway	Irv			Yes	0.71	C	0.76	C	0.70	B	0.76	C
335	Alton Pw at Portola Pw	LF				0.49	A	0.36	A	0.49	A	0.37	A
336	Alton Pw at SR-241 Ramps	LF				0.68	B	0.58	A	0.66	B	0.57	A
338	Alton Pw at Irvine Bl	Irv	F		Yes	1.04	F	0.98	E	1.03	F	0.95	E
339	Alton Pw at Toledo Wy	Irv				0.70	B	0.61	B	0.81	D	0.65	B
340	Alton Pw at Jeronimo Rd	Irv				0.70	B	0.56	A	0.71	C	0.55	A
341	Alton Pw at Barranca Pw	Irv				0.60	A	0.77	C	0.59	A	0.74	C
343	Alton Pw at Ada	Irv				0.48	A	0.71	C	0.52	A	0.73	C
344	Alton Pw at Technology	Irv	P			0.58	A	0.85	D	0.59	A	0.84	D
345	Alton Pw at I-5 NB Ramps	Irv	F		Yes	0.88	D	0.51	A	0.87	D	0.52	A
346	Alton Pw at Enterprise	Irv			Yes	0.71	C	0.75	C	0.70	B	0.78	C
348	Alton Pw at ICD	Irv	P		Yes	0.73	C	0.78	C	0.73	C	0.80	C
350	Alton Pw at Pacifica	Irv			Yes	0.59	A	0.55	A	0.60	A	0.55	A
351	Fortune Dr /I-5 SB Ramps	Irv			Yes	0.47	A	0.77	C	0.48	A	0.75	C
357	Enterprise Dr at Fortune Dr	Irv			Yes	0.49	A	0.51	A	0.49	A	0.50	A
358	ICD at Enterprise Dr	Irv	P		Yes	0.67	B	0.55	A	0.68	B	0.55	A
359	ICD at I-405 SB Ramps	Irv	P		Yes	0.61	B	0.57	A	0.61	B	0.58	A
361	Bake Pw at Portola Pw	LF				0.63	B	0.89	D	0.61	B	0.88	D
362	Bake Pw at Irvine Bl	Irv	F		Yes	0.83	D	0.89	D	0.82	D	0.90	D

Table 6 (Cont.)

ITAM 8.4-10 2030 Baseline ICU Comparison
With Approved Project (Baseline) and With Modified Project, Option 2 HS Alternative

ID	Intersection	Juris	Funded NITM ¹	ATMS App.	LOS E OK	2011 Approved Project				2012 Modified Project - HS Alt.			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
363	Bake Pw at Toledo Wy	Irv				0.84	D	0.68	B	0.84	D	0.68	B
364	Bake Pw at Jeronimo Rd	Irv	F			0.86	D	0.70	B	0.86	D	0.70	B
365	Bake Pw at Muirlands Bl	Irv				0.74	C	0.91	E	0.72	C	0.90	D
366	Bake Pw at Rockfield Bl	Irv				0.78	C	0.98	E	0.76	C	1.01	F
367	Bake Pw at I-5 NB Ramps	Irv			Yes	0.83	D	0.61	B	0.81	D	0.62	B
368	Bake Pw at I-5 SB Ramps	Irv	F		Yes	0.81	D	0.89	D	0.80	C	0.90	D
371	Bake Pw at Research Dr	Irv				0.52	A	0.83	D	0.54	A	0.84	D
372	Bake Pw at ICD	Irv				0.57	A	0.57	A	0.56	A	0.56	A
373	Lake Forest Dr at SR-241 NB Ramp	LF				0.34	A	0.44	A	0.33	A	0.43	A
374	Lake Forest Dr at Portola Pw	LF				0.63	B	0.89	D	0.62	B	0.88	D
375	Lake Forest Dr at SR-241 SB Ramp	LF				0.57	A	0.53	A	0.54	A	0.51	A
376	Lake Forest Dr at Trabuco Rd	LF				0.84	D	0.89	D	0.83	D	0.89	D
377	Lake Forest Dr at Toledo Wy	LF				0.62	B	0.59	A	0.65	B	0.59	A
378	Lake Forest Dr at Jeronimo Rd	LF	P			0.77	C	0.92	E	0.77	C	0.93	E
379	Lake Forest Dr at Muirlands Bl	LF	F			0.75	C	0.84	D	0.73	C	0.84	D
380	Lake Forest Dr at Rockfield Bl	LF	P			0.83	D	0.93	E	0.83	D	0.93	E
381	Lake Forest Dr at I-5 NB Ramps	LF				0.71	C	0.74	C	0.69	B	0.76	C
383	Lake Forest Dr at Avenida Carlota/I-5 SB	Irv	F		Yes	0.65	B	0.82	D	0.64	B	0.82	D
385	Lake Forest Dr at ICD	Irv			Yes	0.52	A	0.76	C	0.53	A	0.77	C
386	Ridge Route Dr at Muirlands Bl	LF				0.57	A	0.70	B	0.57	A	0.69	B
387	Ridge Route Dr at Rockfield Bl	LF	P			0.50	A	0.64	B	0.50	A	0.64	B
388	Ridge Route Dr at Avenida Carlota	LH				0.40	A	0.73	C	0.39	A	0.73	C
389	Ridge Route at Moulton Pw	LH/LW				0.58	A	0.72	C	0.57	A	0.72	C
390	Paseo de Valencia at Ave	LH/LW	P			0.81	D	0.95	E	0.81	D	0.96	E
391	Santa Maria Av at Moulton Pw	LH/LW				0.67	B	0.80	C	0.65	B	0.79	C
392	El Toro Rd at Muirlands Bl	LF				0.76	C	0.87	D	0.77	C	0.87	D
393	El Toro Rd at Rockfield Bl	LF				0.61	B	0.74	C	0.60	A	0.74	C
394	El Toro Rd at I-5 NB Ramps	LF			Yes	0.82	D	0.85	D	0.83	D	0.84	D
396	El Toro Rd at Avenida Carlota	LH	P		Yes	0.74	C	0.96	E	0.74	C	0.95	E
397	El Toro Rd at Paseo de Valencia	LH/LW				0.66	B	0.84	D	0.68	B	0.84	D
398	El Toro Rd at Moulton Pw	LW			Yes	0.85	D	0.96	E	0.87	D	0.96	E
399	El Toro Rd at Aliso Creek Rd	AV				0.57	A	0.69	B	0.57	A	0.70	B
400	El Toro Rd at SR-73 NB Ramps	LB			Yes	0.65	B	0.61	B	0.66	B	0.62	B
401	El Toro Rd at SR-73 SB Ramps	LB			Yes	0.43	A	0.64	B	0.43	A	0.65	B
402	I-5 NB Ramps at Trabuco Rd	Irv				0.63	B	0.65	B	0.65	B	0.66	B
405	Laguna Canyon Rd at Quail Hill Pw	Irv				0.44	A	0.37	A	0.43	A	0.39	A
406	Laguna Canyon Rd at Lake Forest Dr	Irv	F			0.81	D	0.74	C	0.81	D	0.75	C
409	Bake Pw at Commercentre Dr	LF				0.66	B	0.74	C	0.66	B	0.74	C
412	Ridge Route Dr at Trabuco Rd	LF				0.57	A	0.70	B	0.56	A	0.71	C
413	Ridge Route Dr at Toledo Wy	LF				0.42	A	0.40	A	0.43	A	0.39	A
414	Ridge Route Dr at Jeronimo Rd	LF				0.50	A	0.66	B	0.52	A	0.66	B
415	Glenn Ranch Rd at Portola Pw	LF				0.65	B	0.67	B	0.64	B	0.66	B
416	Portola Pw East at SR-241 Ramps	LF				0.51	A	0.67	B	0.51	A	0.67	B
417	El Toro Rd at Portola Pw	LF				0.82	D	1.01	F	0.82	D	1.00	E
418	El Toro Rd at Trabuco Rd	LF			Yes	0.78	C	0.78	C	0.77	C	0.77	C
419	El Toro Rd at Toledo Wy	LF				0.56	A	0.63	B	0.56	A	0.62	B
420	El Toro Rd at Jeronimo Rd	LF	P			0.77	C	0.78	C	0.76	C	0.78	C
421	Los Alisos Bl at Trabuco Rd	MV				0.78	C	0.71	C	0.77	C	0.71	C
422	Los Alisos Bl at Jeronimo Rd	LF/MV	P			0.89	D	0.89	D	0.89	D	0.89	D
423	Muirlands Bl at Los Alisos Bl	LF/MV	P			1.01	F	1.06	F	0.99	E	1.03	F

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ID	Intersection	Juris	Funded NITM ¹	ATMS App.	LOS E OK	2011 Approved Project				2012 Modified Project - HS Alt.			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
424	Los Alisos Bl at Rockfield Bl	LF	P			0.92	E	0.92	E	0.92	E	0.92	E
425	Los Alisos Bl at Avenida Carlota	LH				0.61	B	0.70	B	0.62	B	0.70	B
426	Los Alisos Bl at Paseo de Valencia	LH/LW				0.59	A	0.73	C	0.59	A	0.73	C
427	Moulton Pw at Glenwood/Indian Creek	AV/LH				0.72	C	0.71	C	0.71	C	0.71	C
428	Laguna Hills Dr at Paseo de Valencia	LH/LW				0.74	C	0.77	C	0.74	C	0.77	C
429	Moulton Pw at Laguna Hills Dr	AV/LH				0.82	D	0.82	D	0.82	D	0.80	C
430	Trabuco Rd at Alicia Pw	MV				0.74	C	0.73	C	0.74	C	0.74	C
431	Jeronimo Rd at Alicia Pw	MV				0.77	C	0.77	C	0.78	C	0.77	C
432	Alicia Pw at Muirlands Bl	MV	P			0.72	C	0.88	D	0.72	C	0.88	D
433	I-5 NB Ramps at Alicia Pw	MV				0.45	A	0.70	B	0.44	A	0.70	B
434	I-5 SB Ramps at Alicia Pw	LH				0.70	B	0.76	C	0.69	B	0.76	C
435	Alicia Pw at Paseo de Valencia	LH				0.67	B	0.76	C	0.67	B	0.76	C
436	Moulton Pw at Alicia Pw	LH				0.74	C	0.79	C	0.74	C	0.78	C
437	Scientific Wy at ICD	Irv				0.34	A	0.42	A	0.34	A	0.41	A
441	Loop Rd at Jamboree Rd	Tus				0.27	A	0.19	A	0.28	A	0.19	A
444	Sand Canyon Av at Burt Rd	Irv				0.81	D	0.80	C	0.83	D	0.82	D
452	Jamboree Rd at Santiago Canyon Rd	Ora				0.52	A	0.52	A	0.60	A	0.58	A
463	Jamboree Rd at Chapman Av	Ora				0.71	C	0.73	C	0.70	B	0.74	C
464	SR-241/SR-261 SB Ramps at Chapman Av	OC				0.65	B	0.62	B	0.63	B	0.60	A
465	SR-241/SR-261 NB Ramps at Chapman Av	OC				0.59	A	0.70	B	0.60	A	0.63	B
466	SR-241 NB Ramp at Santiago Canyon Rd	OC				0.54	A	0.62	B	0.56	A	0.62	B
468	Jamboree Rd at Canyon View	Ora				0.65	B	0.39	A	0.58	A	0.39	A
477	El Camino Real N at Bryan Av	Irv				0.44	A	0.48	A	0.43	A	0.48	A
481	Laguna Canyon Rd at Technology	Irv				0.45	A	0.42	A	0.45	A	0.43	A
482	Visions (formerly Road A) at Trabuco Rd	Irv				0.40	A	0.33	A	0.42	A	0.35	A
483	Road C at Trabuco Rd	Irv				0.37	A	0.34	A	0.39	A	0.35	A
484	Sand Canyon at Roosevelt	Irv				0.65	B	0.52	A	0.63	B	0.51	A
485	Sand Canyon at Nightmist	Irv				0.73	C	0.60	A	0.73	C	0.59	A
486	SR-133 SB Ramps at Trabuco Rd	Irv				0.55	A	0.57	A	0.56	A	0.59	A
487	SR-133 NB Ramps at Trabuco Rd	Irv				0.52	A	0.65	B	0.55	A	0.66	B
514	Alton Pw at Rancho Pw	LF				0.69	B	0.76	C	0.69	B	0.74	C
515	Bake Pw N at Rancho Pw North	LF				0.66	B	0.86	D	0.65	B	0.85	D
516	Lake Forest Dr at Rancho Pw North	LF				0.93	E	1.16	F	0.92	E	1.16	F
517	Portola Pw at Rancho Pw	LF				0.63	B	0.70	B	0.63	B	0.70	B
518	Alton Pw at Commercentre	LF				0.63	B	0.76	C	0.61	B	0.75	C
555	Bake Pw at Rancho Pkw	LF				0.70	B	0.73	C	0.70	B	0.73	C
556	Ridge Valley at Portola Pw	Irv				0.52	A	0.54	A	0.54	A	0.52	A
557	O St at C St	Irv				0.39	A	0.36	A	0.38	A	0.35	A
558	O St at Irvine Bl	Irv				0.65	B	0.76	C	0.62	B	0.75	C
559	O St at Trabuco Rd	Irv				0.73	C	0.69	B	0.81	D	0.67	B
560	O St at Marine Wy	Irv				0.44	A	0.61	B	0.52	A	0.63	B
562	D St. at Marine Wy	Irv				0.40	A	0.46	A	0.49	A	0.44	A
563	B St. at Irvine Bl	Irv				0.69	B	0.71	C	0.65	B	0.71	C
564	C St. at Marine Wy	Irv				0.47	A	0.58	A	0.63	B	0.59	A
566	Marine Wy at Barranca Pw	Irv				0.67	B	0.63	B	0.64	B	0.61	B
567	Marine Wy at Alton Pw	Irv				0.62	B	0.62	B	0.67	B	0.60	A
568	Marine Wy at Rockfield Bl	Irv				0.69	B	0.54	A	0.43	A	0.39	A
569	Bake Pw at Marine Wy	Irv				0.64	B	0.65	B	0.79	C	0.72	C
571	Portola Springs at Portola Pkwy	Irv				0.56	A	0.48	A	0.56	A	0.47	A

Table 6 (Cont.)

**ITAM 8.4-10 2030 Baseline ICU Comparison
With Approved Project (Baseline) and With Modified Project, Option 2 HS Alternative**

ID	Intersection	Juris	Funded NITM ¹	ATMS App.	LOS E OK	2011 Approved Project				2012 Modified Project - HS Alt.			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
572	Modjeska at Irvine Bl	Irv				0.67	B	0.73	C	0.64	B	0.74	C
603	O St at LN St	Irv				0.40	A	0.33	A	0.38	A	0.31	A
605	O St at LQ St	Irv				0.57	A	0.54	A	0.56	A	0.50	A
608	O St at LV St	Irv				0.35	A	0.32	A	0.37	A	0.35	A
626	LY St at LQ St	Irv				0.39	A	0.38	A	0.49	A	0.45	A
627	LY St at Irvine Bl	Irv				0.54	A	0.59	A	0.54	A	0.59	A
631	LY St at Trabuco Rd	Irv				0.11	A	0.15	A	0.17	A	0.20	A
633	Sterling at Rockfield Bl	Irv				0.28	A	0.35	A	Not Applicable			
637	Sterling at Muirlands Bl	Irv				0.34	A	0.41	A	0.34	A	0.41	A
640	Thomas at Muirlands Bl.	Irv				0.26	A	0.36	A	0.26	A	0.38	A
782	A St at LQ St	Irv				0.31	A	0.29	A	0.34	A	0.34	A
787	Z St at LQ St	Irv				0.30	A	0.28	A	0.29	A	0.27	A
790	Z St at Irvine Bl	Irv				0.72	C	0.70	B	0.69	B	0.70	B
798	B St at LQ St	Irv				0.48	A	0.38	A	0.37	A	0.38	A
799	"B" Street at Marine Way	Irv				0.48	A	0.56	A	0.75	C	0.66	B
800	LQ St at Irvine Bl	Irv				0.80	C	0.74	C	0.78	C	0.72	C
820	Fairbanks at Irvine Bl.	Irv				0.72	C	0.78	C	0.72	C	0.81	D
821	Alton Pkwy. at Fairbanks	Irv				0.54	A	0.55	A	0.67	B	0.72	C
822	"F" Street at Irvine Bl.	Irv				Not Applicable				0.71	C	0.72	C
831	"G" Street at Marine Way	Irv				Not Applicable				0.55	A	0.59	A
832	Fairbanks at Astor St.	Irv				0.14	A	0.17	A	0.53	A	0.57	A

Bold = Deficient Intersection

1. Fully Funded (F), Partially Funded (P)

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 7

**Year 2030 Intersection ICU LOS with 2012 Modified Project
Option 2, High School Alternative Impact Locations**

Location	Peak Hour	2011 Approved Project (Baseline)		With 2012 Modified Project Option 2 - HS Alternative	
		ICU	LOS	ICU	LOS
Intersection					
16. Newport Ave. & Irvine Blvd.	PM	0.92	E	0.94	E
54. Browning Ave. & Irvine Blvd.	AM	1.00	E	1.03	F
221. Culver Dr. & Bryan Ave.	AM	0.89	D	0.91	E
228. Culver Dr. & Barranca Pkwy.	AM	0.91	E	0.93	E
290. Jeffrey Rd. & Barranca Pkwy.	AM	0.90	D	0.92	E
291. Jeffrey Rd. & Alton Pkwy.	AM	0.93	E	0.95	E
303. Sand Canyon Ave. & I-5 NB Ramp/Marine	PM	0.83	D	0.95	E
306. Sand Canyon Ave. & Oak Canyon	PM	0.91	E	0.93	E
366. Bake Pkwy. & Rockfield Blvd.	PM	0.98	E	1.01	F
Ramp					
I-5 NB Off-Ramp to Jamboree Rd.	AM	1.05	F	1.07	F
Mainline (Directional Segments)					
I-5 NB, n/o Culver Dr.	AM	1.32	F	1.36	F
I-5 NB, n/o Jeffrey Rd.	AM	1.15	F	1.19	F
I-405 Northbound, n/o Jeffrey	AM	1.33	F	1.37	F

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 8

**Year 2030 Freeway/Tollway Ramp LOS Summary
With Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project (Baseline)						2012 Project Modified - HS Alternative					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	LOS
I-5 at Jamboree	SB Direct On	1	1,500	407	0.27	A	1,110	0.74	C	418	0.28	A	1,100	0.73	C
	SB Loop On	1	1,080	519	0.48	A	450	0.42	A	520	0.48	A	470	0.44	A
	NB Direct On	1	1,080	470	0.44	A	480	0.44	A	470	0.44	A	480	0.44	A
	NB Loop On	1	1,080	670	0.62	B	690	0.64	B	670	0.62	B	730	0.68	B
	SB Off	1	1,500	1,428	0.95	E	1,439	0.96	E	1,429	0.95	E	1,472	0.98	E
	NB Off	1	1,500	1,573	1.05	F	1,272	0.85	D	1,602	1.07	F	1,283	0.86	D
I-5 at Culver	SB Direct On	1	900	240	0.27	A	300	0.33	A	240	0.27	A	300	0.33	A
	SB Loop On	1	900	340	0.38	A	230	0.26	A	320	0.36	A	220	0.24	A
	NB Direct On	1	900	727	0.81	D	180	0.20	A	719	0.80	C	179	0.20	A
	NB Loop On	1	1,500	1,120	0.75	C	590	0.39	A	1,150	0.77	C	600	0.40	A
	SB Off	2	2,250	958	0.43	A	2,163	0.96	E	959	0.43	A	2,198	0.98	E
	NB Off	1	1,500	313	0.21	A	447	0.30	A	322	0.21	A	434	0.29	A
I-5 at Jeffrey	SB On	1	1,080	1,216	1.13	F	749	0.69	B	1,192	1.10	F	770	0.71	C
	NB Direct On	1	1,080	700	0.65	B	220	0.20	A	780	0.72	C	230	0.21	A
	NB Loop On	1	1,500	250	0.17	A	270	0.18	A	250	0.17	A	270	0.18	A
	SB Off	1	1,500	610	0.41	A	989	0.66	B	610	0.41	A	1,020	0.68	B
	NB Off	2	2,250	912	0.41	A	1,437	0.64	B	919	0.41	A	1,425	0.63	B
	SB On	1	1,500	640	0.43	A	730	0.49	A	669	0.45	A	731	0.49	A
I-5 at Sand Canyon	NB On	1	1,500	760	0.51	A	1,500	1.00	E	940	0.63	B	1,480	0.99	E
	SB Off	1	1,500	1,804	1.20	F	850	0.57	A	1,714	1.14	F	920	0.61	B
	NB Off	2	2,250	681	0.30	A	700	0.31	A	682	0.30	A	710	0.32	A
	NB On	1	1,500	20	0.01	A	200	0.13	A	20	0.01	A	191	0.13	A
	SB Off	1	1,500	308	0.21	A	101	0.07	A	259	0.17	A	90	0.06	A
	SB On	1	1,500	341	0.23	A	580	0.39	A	351	0.23	A	610	0.41	A
I-5 at Alton	NB Direct On	2	1,800	250	0.14	A	1,172	0.65	B	281	0.16	A	1,170	0.65	B
	NB Loop On	1	1,500	562	0.37	A	157	0.10	A	559	0.37	A	151	0.10	A
	SB Off	2	2,250	2,103	0.93	E	940	0.42	A	2,089	0.93	E	957	0.43	A
	NB Off	2	2,250	1,151	0.51	A	319	0.14	A	1,141	0.51	A	310	0.14	A
	SB Direct On	1	1,500	103	0.07	A	134	0.09	A	110	0.07	A	126	0.08	A
	SB Loop On	1	1,080	351	0.33	A	848	0.79	C	380	0.35	A	825	0.76	C
I-5 at Bake	NB Direct On	2	3,400	1,876	0.55	A	1,643	0.48	A	1,926	0.57	A	1,633	0.48	A
	NB Loop On	1	1,500	320	0.21	A	1,000	0.67	B	320	0.21	A	1,000	0.67	B
	SB Off	2	3,000	2,993	1.00	E	2,438	0.81	D	2,993	1.00	E	2,440	0.81	D
	NB Off	2	3,000	1,427	0.48	A	589	0.20	A	1,333	0.44	A	570	0.19	A

Table 8 (Cont.)

**Year 2030 Freeway/Tollway Ramp LOS Summary
With Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project (Baseline)						2012 Project Modified - HS Alternative					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	LOS
I-5 at Lake Forest	SB Direct On	1	1,500	329	0.22	A	862	0.57	A	330	0.22	A	851	0.57	A
	SB Loop On	1	1,080	406	0.38	A	658	0.61	B	406	0.38	A	644	0.60	A
	NB On	2	1,800	1,543	0.87	D	1,320	0.78	C	1,412	0.78	C	1,043	0.58	A
	SB Off	2	3,000	1,759	0.59	A	2,325	0.78	C	1,758	0.59	A	2,326	0.78	C
	NB Off	1	1,500	892	0.63	B	585	0.39	A	1,511	1.01	F	732	0.49	A
	SB Direct On	1	1,080	139	0.13	A	136	0.13	A	152	0.14	A	140	0.13	A
	SB Loop On	1	1,500	455	0.30	A	519	0.35	A	441	0.29	A	515	0.34	A
	NB Direct On	1	1,500	1,437	0.96	E	1,101	0.73	C	1,479	0.99	E	1,105	0.74	C
I-5 at El Toro	NB Loop On	1	1,500	1,273	0.85	D	1,270	0.85	D	1,269	0.85	D	1,263	0.84	D
	SB Off	1	2,250	2,773	1.23	F	2,814	1.25	F	2,793	1.24	F	2,819	1.25	F
	NB Off	1	1,500	1,330	0.89	D	1,211	0.81	D	1,334	0.89	D	1,211	0.81	D
	SB Direct On	1	1,080	150	0.14	A	203	0.19	A	151	0.14	A	203	0.19	A
	SB Loop On	1	1,500	801	0.53	A	750	0.50	A	805	0.54	A	750	0.50	A
	NB Direct On	1	1,500	1,296	0.86	D	880	0.59	A	1,324	0.88	D	900	0.60	A
	NB Loop On	1	1,500	1,427	0.95	E	870	0.58	A	1,414	0.94	E	870	0.58	A
	SB Off	1	3,000	2,097	0.70	B	2,199	0.73	C	2,097	0.70	B	2,199	0.73	C
I-5 at Alicia	NB Off	1	1,500	311	0.21	A	1,070	0.71	C	310	0.21	A	1,072	0.71	C
	SB Direct On	1	1,500	230	0.15	A	560	0.37	A	230	0.15	A	580	0.39	A
	SB Loop On	1	900	250	0.28	A	340	0.38	A	250	0.28	A	340	0.38	A
	NB Direct On	1	1,500	930	0.62	B	670	0.45	A	930	0.62	B	680	0.45	A
	NB Loop On	1	1,500	690	0.46	A	490	0.33	A	690	0.46	A	480	0.32	A
	SB Off	2	3,000	924	0.31	A	1,490	0.50	A	931	0.31	A	1,513	0.50	A
	NB Off	1	1,500	1,378	0.92	E	1,279	0.85	D	1,402	0.93	E	1,271	0.85	D
	SB Direct On	1	1,500	1,020	0.68	B	1,210	0.81	D	1,020	0.68	B	1,200	0.80	C
I-405 at Culver	SB Loop On	1	900	370	0.41	A	290	0.32	A	370	0.41	A	280	0.31	A
	NB Direct On	1	1,500	1,342	0.89	D	650	0.43	A	1,350	0.90	D	640	0.43	A
	NB Loop On	1	900	361	0.40	A	110	0.12	A	350	0.39	A	110	0.12	A
	SB Off	1	1,500	645	0.43	A	812	0.54	A	645	0.43	A	822	0.55	A
	NB Off	1	2,250	1,257	0.56	A	1,873	0.83	D	1,222	0.54	A	1,850	0.82	D
	SB On	1	1,500	188	0.13	A	520	0.35	A	360	0.24	A	510	0.34	A
	NB Direct On	1	1,500	630	0.42	A	371	0.25	A	630	0.42	A	370	0.25	A
	SB Off	1	1,500	1,846	1.23	F	1,031	0.69	B	1,821	1.21	F	1,064	0.71	C
I-405 at Sand Canyon	NB Off	1	1,500	627	0.42	A	497	0.33	A	637	0.42	A	507	0.34	A

Table 8 (Cont.)

**Year 2030 Freeway/Tollway Ramp LOS Summary
With Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project (Baseline)				2012 Project Modified - HS Alternative			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²
I-405 at Irvine Center	SB Direct On	1	900	60	0.07	A	90	0.10	A	60	0.07
	SB Loop On	1	900	240	0.27	A	380	0.42	A	240	0.27
	NB Direct On	1	1,500	223	0.15	A	558	0.37	A	257	0.17
	NB Loop On	1	1,500	249	0.17	A	1,238	0.83	D	249	0.17
	SB Off	1	2,250	2,093	0.93	E	1,472	0.65	B	2,067	0.92
	NB Off	1	3,000	1,210	0.40	A	410	0.14	A	1,210	0.40
	SR-133 at SR-241										
	NB SR-133 to SB SR-241	2	4,000	809	0.20	A	2,428	0.61	B	794	0.20
SR-241 to SB SR-133	NB SR-241 to SB SR-133	2	4,000	3,079	0.77	C	1,350	0.34	A	3,051	0.76
	NB SR-133 to NB SR-241	2	4,000	1,844	0.46	A	2,877	0.72	C	1,944	0.49
	SB SR-241 to SB SR-133	2	4,000	3,377	0.84	D	1,918	0.48	A	3,372	0.84
	SB On	1	1,500	290	0.19	A	280	0.19	A	295	0.20
	NB Direct On	1	1,500	190	0.13	A	290	0.19	A	261	0.17
	NB Loop On	1	1,500	140	0.09	A	200	0.13	A	120	0.08
	SB Off	2	2,250	438	0.19	A	309	0.14	A	440	0.20
	NB Off	1	1,500	171	0.11	A	469	0.31	A	160	0.11
SR-133 at Trabuco	SB On	1	1,500	740	0.49	A	680	0.45	A	780	0.52
	NB On	1	1,500	180	0.12	A	480	0.32	A	170	0.11
	SB Off	1	1,500	620	0.41	A	380	0.25	A	602	0.40
	NB Off	1	1,500	827	0.55	A	930	0.62	B	817	0.54
	SR-133 at I-5										
	NB I-5 to NB SR-133	1	2,000	1,161	0.58	A	1,539	0.77	C	1,186	0.59
	SB SR-133 to SB I-5	1	2,000	1,681	0.84	D	1,197	0.60	A	1,680	0.84
	SB SR-133 to NB I-5	1	2,000	1,451	0.73	C	699	0.35	A	1,462	0.73
SR-133 at Barranca	SB I-5 to NB SR-133	1	2,000	789	0.39	A	1,453	0.73	C	781	0.39
	SB I-5 to SB SR-133	2	4,000	2,046	0.51	A	1,726	0.43	A	2,063	0.52
	NB SR-133 to NB I-5	2	4,000	2,142	0.54	A	2,136	0.53	A	2,117	0.53
	SB Loop On	1	1,080	149	0.14	A	1,200	1.11	F	140	0.13
	NB Direct On	1	1,080	180	0.17	A	610	0.56	A	157	0.15
	NB Loop On	1	1,080	440	0.41	A	1,499	1.39	F	450	0.42
	SB Off	2	3,000	2,130	0.71	C	581	0.19	A	2,130	0.71
	NB Off	2	2,250	1,535	0.68	B	432	0.19	A	1,500	0.67
SR-133 at I-405	SB SR-133 to SB I-405	1	2,000	1,010	0.51	A	926	0.46	A	1,014	0.51
	NB SR-133 to SB I-405	1	2,000	60	0.03	A	88	0.04	A	58	0.03
	SB SR-133 to NB I-405	2	4,000	815	0.20	A	587	0.15	A	870	0.22
	NB Off	2	2,250	1,535	0.68	B	432	0.19	A	1,500	0.67

Table 8 (Cont.)

**Year 2030 Freeway/Tollway Ramp LOS Summary
With Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project (Baseline)				2012 Project Modified - HS Alternative				
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
				Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	
NB SR-133 to NB I-405	2	4,000	1,234	0.31	A	924	0.23	A	1,287	0.32	A	
SB I-405 to NB SR-133	1	2,000	1,689	0.84	D	1,530	0.77	C	1,654	0.83	D	
SB I-405 to SB SR-133	1	2,000	555	0.28	A	608	0.30	A	554	0.28	A	
NB I-405 to SB SR-133	1	2,000	292	0.15	A	346	0.17	A	290	0.15	A	
SR-241 at Chapman / Santiago Cyn	SB On	2	1,800	970	0.54	A	291	0.16	A	950	0.53	A
	NB On	1	1,500	479	0.32	A	470	0.31	A	449	0.30	A
	SB Off	1	1,500	947	0.63	B	501	0.33	A	477	0.32	A
	NB Off	1	1,500	648	0.43	A	984	0.66	B	734	0.49	A
SR-241 at Portola (West)	SB On	1	1,500	349	0.23	A	410	0.27	A	345	0.23	A
	NB On	1	1,500	20	0.01	A	30	0.02	A	20	0.01	A
	SB Off	1	1,500	29	0.02	A	61	0.04	A	40	0.03	A
	NB Off	1	1,500	664	0.44	A	384	0.26	A	664	0.44	A
SR-241 at Alton	SB On	1	1,500	420	0.15	A	1,148	0.53	A	453	0.30	A
	NB On	1	1,500	460	0.35	A	628	0.21	A	464	0.31	A
	SB Off	1	1,500	729	0.19	A	459	0.24	A	687	0.46	A
	NB Off	2	2,250	1,098	0.68	B	621	0.21	A	1,031	0.46	A
SR-241 at Lake Forest	NB On	2	2,250	220	0.10	A	870	0.28	A	227	0.10	A
	SB Off	1	1,500	820	0.52	A	420	0.22	A	804	0.54	A
	SB On	1	1,500	330	0.22	A	1,430	0.95	E	332	0.22	A
	NB On	2	2,250	830	0.37	A	440	0.20	A	825	0.37	A
SR-241 at Portola (East)	SB Off	1	1,500	530	0.35	A	621	0.41	A	522	0.35	A
	NB Off	2	2,250	2,190	0.97	E	570	0.25	A	2,176	0.97	E
SR-261 at Chapman	SB On	1	1,500	1,010	0.67	B	250	0.17	A	990	0.66	B
	NB Off	1	1,500	91	0.06	A	778	0.52	A	100	0.07	A
SR-261 at Portola	SB On	1	1,500	160	0.11	A	100	0.07	A	160	0.11	A
	NB On	1	1,500	460	0.31	A	250	0.17	A	480	0.32	A
	SB Off	1	1,500	111	0.07	A	282	0.19	A	100	0.07	A
	NB Off	1	1,500	100	0.07	A	100	0.07	A	100	0.07	A
SR-261 at Irvine	SB On	1	1,500	860	0.57	A	320	0.21	A	870	0.58	A
	NB On	1	1,500	270	0.18	A	270	0.18	A	270	0.18	A
	SB Off	1	1,500	151	0.10	A	120	0.08	A	131	0.09	A
	NB Off	1	1,500	223	0.15	A	223	0.15	A	233	0.16	A

¹ NB = Northbound; SB = Southbound. ² V/C = Volume/Capacity Ratio.

BOLD = Unsatisfactory level of service.

Table 9

ITAM 8.4-10 2030 Baseline Peak Hour Volume / Capacity Comparison
Modified Project - Option 2 HS Alternative

Location	Direction	Lanes	Capacity	2011 Approved Project						2012 Proposed Project - HS Alternative						
				AM Peak			PM Peak			AM Peak			PM Peak			
				Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	
I-5	n/o Newport	NB	5+1H	11,600	15,774	1.36	F	12,399	1.07	F	16,061	1.38	F	12,407	1.07	F
		SB	5+1H	11,600	9,920	0.86	D	10,649	0.92	E	9,927	0.86	D	10,802	0.93	E
	n/o Red Hill	NB	5+1H	11,600	15,046	1.30	F	11,806	1.02	F	15,355	1.32	F	11,793	1.02	F
		SB	5+1H	11,600	12,035	1.04	F	12,756	1.10	F	11,894	1.03	F	13,003	1.12	F
	n/o Justin Ranch	NB	5+1H	11,600	15,703	1.35	F	12,384	1.07	F	16,030	1.38	F	12,367	1.07	F
		SB	5+1H	11,600	12,695	1.09	F	13,383	1.15	F	12,559	1.08	F	13,639	1.18	F
	n/o Jamboree	NB	5+1H	11,600	15,215	1.31	F	12,043	1.04	F	15,563	1.34	F	12,037	1.04	F
		SB	5+1H	11,600	12,349	1.06	F	12,904	1.11	F	12,236	1.05	F	13,155	1.13	F
	n/o Culver	NB	5+1H	11,600	15,330	1.32	F	11,931	1.03	F	15,723	1.36	F	11,901	1.03	F
		SB	5+1H	11,600	11,933	1.03	F	12,855	1.11	F	11,839	1.02	F	13,078	1.13	F
I-405	n/o Jeffrey	NB	5+1H	11,600	13,367	1.15	F	11,093	0.96	E	13,754	1.19	F	11,056	0.95	E
		SB	5+1H	11,600	11,539	0.99	E	11,487	0.99	E	11,432	0.99	E	11,664	1.01	F
	n/o Sand Cyn	NB	5+1H	11,600	13,252	1.14	F	11,263	0.97	E	13,567	1.17	F	11,199	0.97	E
		SB	5+1H	11,600	12,118	1.04	F	11,765	1.01	F	11,959	1.03	F	11,934	1.03	F
	n/o Alton	NB	4+1H	9,600	10,666	1.11	F	8,788	0.92	E	10,842	1.13	F	8,778	0.91	E
		SB	4+1H	9,600	9,272	0.97	E	9,496	0.99	E	9,268	0.97	E	9,597	1.00	E
	n/o I-405	NB	4+1H	9,600	11,163	1.16	F	7,818	0.81	D	11,300	1.18	F	7,823	0.81	D
		SB	4+1H	9,600	7,715	0.80	C	9,788	1.02	F	7,734	0.81	D	9,856	1.03	F
	n/o Bake	NB	9+2H	21,500	22,371	1.04	F	14,430	0.67	B	22,635	1.05	F	14,475	0.67	B
		SB	9+2H	21,500	11,840	0.55	A	16,842	0.78	C	11,897	0.55	A	16,930	0.79	C
I-405	n/o Lake Forest	NB	8+2H	19,500	21,751	1.12	F	12,868	0.66	B	21,861	1.12	F	12,918	0.66	B
		SB	8+2H	19,500	12,130	0.62	B	17,471	0.90	D	12,229	0.63	B	17,530	0.90	D
	n/o El Toro	NB	5+2H	13,500	20,752	1.54	F	12,040	0.89	D	20,810	1.54	F	12,078	0.89	D
		SB	5+2H	13,500	10,007	0.74	C	16,041	1.19	F	10,116	0.75	C	16,032	1.19	F
	n/o Alicia	NB	4+1H	9,600	17,648	1.84	F	10,161	1.06	F	17,611	1.83	F	10,186	1.06	F
		SB	4+1H	9,600	7,712	0.80	C	13,095	1.36	F	7,790	0.81	D	13,083	1.36	F
	s/o Alicia	NB	4+1H	9,600	13,547	1.41	F	7,620	0.79	C	13,497	1.41	F	7,628	0.79	C
		SB	4+1H	9,600	6,371	0.66	B	10,731	1.12	F	6,471	0.67	B	10,715	1.12	F
	n/o Jeffrey	NB	4+1H	9,600	12,809	1.33	F	9,128	0.95	E	13,128	1.37	F	9,156	0.95	E
		SB	4+1H	9,600	9,178	0.96	E	10,596	1.10	F	9,144	0.95	E	10,835	1.13	F
I-405	n/o Sand Cyn	NB	4+1H	9,600	12,935	1.35	F	9,478	0.99	E	13,220	1.38	F	9,486	0.99	E
		SB	4+1H	9,600	9,378	0.98	E	10,532	1.10	F	9,344	0.97	E	10,756	1.12	F
	n/o SR-133	NB	4+1H	9,600	12,661	1.32	F	8,490	0.88	D	12,923	1.35	F	8,510	0.89	D
		SB	4+1H	9,600	8,257	0.86	D	9,934	1.03	F	8,241	0.86	D	10,115	1.05	F
	n/o Irvine Center	NB	4+1H	9,600	10,904	1.14	F	7,325	0.76	C	11,056	1.15	F	7,333	0.76	C
I-405		SB	4+1H	9,600	7,083	0.74	C	8,810	0.92	E	7,106	0.74	C	8,875	0.92	E
	n/o I-5	NB	4+1H	9,600	7,864	0.82	D	4,131	0.43	A	7,965	0.83	D	4,146	0.43	A
		SB	4+1H	9,600	6,119	0.64	B	8,587	0.89	D	6,169	0.64	B	8,625	0.90	D

Table 9 (Cont.)

ITAM 8.4-10 2030 Baseline Peak Hour Volume / Capacity Comparison
Modified Project - Option 2 HS Alternative

Location	Direction	Lanes	Capacity	2011 Approved Project						2012 Proposed Project - HS Alternative					
				AM Peak			PM Peak			AM Peak			PM Peak		
				Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS
SR-133	n/o Irvine Blvd	NB	4	8,000	2,652	0.33	A	5,305	0.66	B	2,738	0.34	A	5,305	0.66
		SB	4	8,000	6,456	0.81	D	3,268	0.41	A	6,422	0.80	C	3,337	0.42
	s/o Irvine Blvd	NB	3	6,000	2,347	0.39	A	4,979	0.83	D	2,357	0.39	A	5,041	0.84
		SB	3	6,000	5,764	0.96	E	2,957	0.49	A	5,776	0.96	E	2,992	0.50
	n/o I-5	NB	3	6,000	2,175	0.36	A	4,498	0.75	C	2,192	0.37	A	4,563	0.76
		SB	3	6,000	3,697	0.62	B	1,884	0.31	A	3,741	0.62	B	1,900	0.32
SR-241	s/o I-5	NB	3	6,000	3,188	0.53	A	4,571	0.76	C	3,150	0.53	A	4,596	0.77
		SB	3	6,000	4,796	0.80	C	3,085	0.51	A	4,870	0.81	D	3,096	0.52
	n/o I-405	NB	3	6,000	3,933	0.66	B	3,467	0.58	A	3,878	0.65	B	3,563	0.59
		SB	3	6,000	3,255	0.54	A	3,146	0.52	A	3,323	0.55	A	3,163	0.53
	n/o SR-133	NB	3	6,000	5,294	0.88	D	4,934	0.82	D	5,477	0.91	E	4,924	0.82
		SB	3	6,000	5,733	0.96	E	4,791	0.80	C	5,682	0.95	E	4,903	0.82
SR-261	n/o Portola (West)	NB	4	8,000	6,530	0.82	D	3,407	0.43	A	6,583	0.82	D	3,400	0.43
		SB	4	8,000	3,165	0.40	A	5,301	0.66	B	3,104	0.39	A	5,347	0.67
	n/o Alton	NB	4	8,000	7,143	0.89	D	3,812	0.48	A	7,164	0.90	D	3,790	0.47
		SB	4	8,000	3,720	0.47	A	5,839	0.73	C	3,649	0.46	A	5,858	0.73
	n/o Lake Forest	NB	4	8,000	7,563	0.95	E	3,416	0.43	A	7,526	0.94	E	3,402	0.43
		SB	4	8,000	3,113	0.39	A	6,075	0.76	C	3,107	0.39	A	6,059	0.76
	n/o Portola	NB	3	6,000	1,289	0.21	A	3,002	0.50	A	1,310	0.22	A	3,032	0.51
		SB	3	6,000	3,738	0.62	B	1,380	0.23	A	3,818	0.64	B	1,428	0.24
	n/o Irvine Blvd	NB	3	6,000	534	0.09	A	2,380	0.40	A	540	0.09	A	2,436	0.41
		SB	3	6,000	3,104	0.52	A	795	0.13	A	3,198	0.53	A	838	0.14
	s/o Irvine Blvd	NB	3	6,000	780	0.13	A	3,097	0.52	A	795	0.13	A	3,181	0.53
		SB	3	6,000	3,749	0.62	B	1,130	0.19	A	3,868	0.64	B	1,184	0.20
	n/o Chapman/Sant. Cyn	NB	3	6,000	5,574	0.93	E	6,892	1.15	F	5,639	0.94	E	6,751	1.13
		SB	3	6,000	8,614	1.44	F	5,181	0.86	D	8,205	1.37	F	5,181	0.86

BOLD = Deficient Segment

*Heritage Fields Project 2012 GPAZC Traffic Study
City of Irvine, CA (JN:07151-12.1 Report Tables)*

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Table 10

**Year 2030 Intersection ICU LOS with 2012 Modified Project
Option 2, High School Alternative Impact Locations with Proposed Mitigation**

Location	Peak Hour	2011 Approved Project (Baseline)		With 2012 Modified Project Option 2 - HS		With Improvement	
		ICU	LOS	ICU	LOS	ICU	LOS
Intersection							
16. Newport Ave. & Irvine Blvd.	PM	0.92	E	0.94	E	0.90	D
54. Browning Ave. & Irvine Blvd.	AM	1.00	E	1.03	F	0.98	E
221. Culver Dr. & Bryan Ave.	AM	0.89	D	0.91	E	0.88	D
228. Culver Dr. & Barranca Pkwy.	AM	0.91	E	0.93	E	0.89	D
290. Jeffrey Rd. & Barranca Pkwy.	AM	0.90	D	0.92	E	0.87	D
291. Jeffrey Rd. & Alton Pkwy.	AM	0.93	E	0.95	E	0.91	E
303. Sand Canyon Ave. & I-5 NB Ramp/Marine	PM	0.83	D	0.95	E	0.82	D
306. Sand Canyon Ave. & Oak Canyon	PM	0.91	E	0.93	E	0.74	C
366. Bake Pkwy. & Rockfield Blvd.	PM	0.98	E	1.01	F	0.90	D
Ramp							
I-5 NB Off-Ramp to Jamboree Rd.	AM	1.05	F	1.07	F	0.71	C
Mainline (Directional Segments)							
I-5 NB, n/o Culver Dr.	AM	1.32	F	1.36	F	1.16	F
I-5 NB, n/o Jeffrey Rd.	AM	1.15	F	1.19	F	1.01	F
I-405 Northbound, n/o Jeffrey	AM	1.33	F	1.37	F	1.13	F

Heritage Fields Project 2012 GPAZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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TABLE 11

POST 2030 OPTION 2 HIGH SCHOOL ALTERNATIVE ARTERIAL ROADWAY PEAK HOUR ANALYSIS SUMMARY

Arterial	ADT Segment Limits	Juris	# of Lanes	Peak Hour Capacity	P2030 Option 2 - HS Alternative		
					Refined ADT	Highest Peak Volume	Peak Hour V/C
Bake Pkwy.	b/w Rockfield Bl. and Marine Wy.	IrV	8D	6,400	79,400	4,129 (AM Northbound)	0.65
Alton Pkwy.	e/o Culver Dr.	IrV	4D	3,200	29,300	1,719 (AM Westbound)	0.54
Trabuco Rd.	b/w SR-133 and O St.	IrV	4D	3,200	34,900	1,624 (PM Eastbound)	0.51
Barranca Pkwy.	s/o Technology Dr.	IrV	4D	3,200	29,400	1,990 (PM Southbound)	0.62
Jeffrey Rd.	b/w Roosevelt and I-5 NB Ramps	IrV	6D	4,800	69,700	3,493 (AM Southbound)	0.73
						C	

*Heritage Fields Project 2012 GPAZC Traffic Study
 City of Irvine, CA (JN:07151-12.1 Report Tables)
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Table 12
ITAM 8.4-10 Post 2030 Baseline ICU Comparison
With 2012 Modified Project, Option 2 HS Alternative

ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	Post 2030 2011 Approved Project (Baseline)				Post 2030 With Modified Project - HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
16	Newport Av at Irvine Bl	Tus		Yes		0.78	C	0.88	D	0.79	C	0.89	D
34	Red Hill Av at Irvine Bl	Tus/OC	F	Yes		0.76	C	0.85	D	0.77	C	0.85	D
54	Browning Av at Irvine Bl	Tus/OC				0.85	D	0.75	C	0.86	D	0.75	C
91	Tustin Ranch Rd at Irvine Bl	Tus	F	Yes		0.78	C	0.85	D	0.80	C	0.85	D
123	Jamboree Rd at Tustin Ranch Rd	Tus	P			0.63	B	0.54	A	0.66	B	0.55	A
124	Jamboree Rd at Portola Pw	Tus				0.73	C	0.69	B	0.75	C	0.71	C
125	Jamboree Rd at Irvine Bl	Tus	F		Yes	0.81	D	0.80	C	0.82	D	0.80	C
126	Jamboree Rd at Bryan Av	Tus				0.69	B	0.62	B	0.70	B	0.63	B
127	Jamboree Rd at El Camino Real	Tus				0.71	C	0.70	B	0.71	C	0.70	B
128	Jamboree Rd at I-5 NB Ramps	Irv/Tus				0.63	B	0.71	C	0.64	B	0.71	C
129	Jamboree Rd at I-5 SB Ramps	Irv				0.63	B	0.63	B	0.64	B	0.63	B
131	Jamboree Rd SB at Walnut Av	Irv				0.47	A	0.59	A	0.47	A	0.58	A
132	Jamboree Rd NB at Walnut Av	Irv				0.54	A	0.76	C	0.54	A	0.75	C
133	Jamboree Rd at Edinger Av	Tus			Yes	0.50	A	0.70	B	0.51	A	0.70	B
135	Jamboree Rd NB at Warner Av	Irv				0.39	A	0.43	A	0.40	A	0.45	A
136	Jamboree Rd at Barranca Pw	Irv			Yes	0.84	D	0.95	E	0.85	D	0.95	E
157	SR-261 SB Ramps at Portola Pw	Irv				0.46	A	0.46	A	0.49	A	0.46	A
158	SR-261 NB Ramps at Portola Pw	Irv				0.46	A	0.46	A	0.49	A	0.46	A
159	SR-261 SB Ramps at Irvine Bl	Irv				0.58	A	0.52	A	0.57	A	0.53	A
160	SR-261 NB Ramps at Irvine Bl	Irv				0.70	B	0.63	B	0.71	C	0.63	B
218	Culver Dr at Portola Pk	Irv				0.70	B	0.67	B	0.71	C	0.67	B
220	Culver Dr at Irvine Bl	Irv				0.80	C	0.88	D	0.80	C	0.88	D
221	Culver Dr at Bryan Av	Irv				0.88	D	0.74	C	0.90	D	0.74	C
222	Culver Dr at Trabuco Rd	Irv	F			0.76	C	0.78	C	0.78	C	0.78	C
223	Culver Dr at I-5 SB Ramps	Irv	F			0.59	A	0.65	B	0.60	A	0.67	B
224	Culver Dr at Walnut Av	Irv	F			0.80	C	0.87	D	0.82	D	0.89	D
226	Culver Dr at ICD	Irv				0.77	C	0.70	B	0.78	C	0.72	C
227	Culver Dr at Warner Av	Irv				0.81	D	0.65	B	0.82	D	0.66	B
228	Culver Dr at Barranca Pw	Irv	P			0.89	D	0.79	C	0.89	D	0.80	C
229	Culver Dr at Alton Pkwy	Irv				0.85	D	0.88	D	0.86	D	0.89	D
232	Culver Dr at I-405 NB Ramps	Irv				0.78	C	0.72	C	0.80	C	0.73	C
233	Culver Dr at I-405 SB Ramps	Irv				0.57	A	0.62	B	0.57	A	0.62	B
235	Culver Dr at University	Irv	F			0.63	B	0.76	C	0.63	B	0.77	C
249	Yale Av at Irvine Bl	Irv	F			0.74	C	0.88	D	0.75	C	0.88	D
252	Yale Av at Bryan Av	Irv				0.46	A	0.45	A	0.47	A	0.44	A
255	Yale Av at Trabuco Rd	Irv				0.61	B	0.51	A	0.62	B	0.50	A
259	Yale Av at Walnut Av	Irv				0.60	A	0.73	C	0.60	A	0.74	C
261	Yale Av at ICD	Irv				0.69	B	0.68	B	0.67	B	0.69	B
264	W Yale Lp at Barranca Pw	Irv				0.64	B	0.62	B	0.64	B	0.62	B
267	E Yale Lp at Barranca Pw	Irv				0.68	B	0.65	B	0.69	B	0.64	B
268	W Yale Loop at Alton Pw	Irv				0.67	B	0.68	B	0.70	B	0.69	B
271	E Yale Lp at Alton Pw	Irv				0.75	C	0.67	B	0.74	C	0.68	B
282	Jeffrey Rd at Portola Pw	Irv				0.69	B	0.64	B	0.68	B	0.64	B
283	Jeffrey Rd at Irvine Bl	Irv				0.74	C	0.71	C	0.75	C	0.71	C
284	Jeffrey Rd at Bryan Av	Irv				0.74	C	0.67	B	0.74	C	0.68	B
285	Jeffrey Rd at Trabuco Rd	Irv				0.66	B	0.74	C	0.67	B	0.75	C
286	Jeffrey Rd at Roosevelt	Irv				0.89	D	0.89	D	0.91	E	0.89	D
287	Jeffrey Rd at I-5 NB Ramps	Irv				0.73	C	0.82	D	0.73	C	0.82	D
288	Jeffrey Rd at Walnut Av	Irv	F			0.79	C	0.80	C	0.79	C	0.80	C
289	Jeffrey Rd at ICD	Irv	F			0.82	D	0.79	C	0.84	D	0.79	C

Table 12 (Cont.)

**ITAM 8.4-10 Post 2030 Baseline ICU Comparison
With 2012 Modified Project, Option 2 HS Alternative**

ID	Intersection	Juris.				Post 2030 2011 Approved Project (Baseline)				Post 2030 With Modified Project - HS Alternative			
			Funded NITM ¹	ATMS App.	LOS E OK	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
290	Jeffrey Rd at Barranca Pw	Irv	P			0.85	D	0.75	C	0.84	D	0.76	C
291	Jeffrey Rd at Alton Pw	Irv	F	Yes		0.90	D	0.81	D	0.91	E	0.79	C
293	Jeffrey Rd at I-405 NB Ramps	Irv	P			0.68	B	0.79	C	0.69	B	0.79	C
294	University Dr at I-405 SB Ramps	Irv				0.67	B	0.70	B	0.68	B	0.71	C
300	Sand Canyon Av at Portola Pw	Irv				0.48	A	0.59	A	0.48	A	0.60	A
301	Sand Canyon Av at Irvine Bl	Irv				0.74	C	0.76	C	0.73	C	0.76	C
302	Sand Canyon Av at Trabuco Pw	Irv	F			0.76	C	0.77	C	0.77	C	0.79	C
303	Sand Canyon Av at I-5 NB Ramps/Marine Wy	Irv	F			0.80	C	0.83	D	0.85	D	0.89	D
305	Sand Canyon Av at I-5 SB Ramps	Irv	F			0.88	D	0.83	D	0.90	D	0.87	D
306	Sand Canyon Av at Oak Canyon	Irv	F			0.88	D	0.77	C	0.86	D	0.79	C
307	Sand Canyon Av at ICD	Irv				0.60	A	0.65	B	0.59	A	0.67	B
309	Sand Canyon Av at Barranca Pw	Irv				0.58	A	0.61	B	0.56	A	0.60	A
310	Sand Canyon Av at Alto	Irv	F			0.65	B	0.74	C	0.62	B	0.75	C
311	Sand Canyon Av at I-405 NB Ramps	Irv	F			0.66	B	0.47	A	0.66	B	0.47	A
312	Sand Canyon Av at I-405 SB Ramps	Irv				0.80	C	0.54	A	0.80	C	0.54	A
313	Laguna Canyon Rd at ICD	Irv				0.34	A	0.42	A	0.33	A	0.43	A
314	Laguna Canyon Rd at Barranca Pw	Irv				0.45	A	0.45	A	0.44	A	0.45	A
315	Laguna Canyon Rd at Alton Pw	Irv				0.52	A	0.57	A	0.53	A	0.58	A
316	SR-133 SB Ramps at Irvine Bl	Irv				0.54	A	0.58	A	0.55	A	0.58	A
317	SR-133 NB Ramps at Irvine Bl	Irv				0.77	C	0.76	C	0.71	C	0.81	D
318	Banting at Barranca Pkwy	Irv				0.70	B	0.55	A	0.72	C	0.54	A
319	Banting at Alton Pw	Irv				0.57	A	0.53	A	0.58	A	0.53	A
321	Laguna Canyon Rd at Old Laguna Canyon Rd	Irv	F			0.92	E	0.81	D	0.94	E	0.81	D
322	Laguna Canyon Rd at SR-73 NB Ramps	Irv			Yes	0.93	E	0.62	B	0.93	E	0.62	B
323	Laguna Canyon Rd at SR-73 SB Ramps	LB			Yes	0.40	A	0.45	A	0.40	A	0.45	A
324	Portola Pw at SR-241 NB Ramps	LB				0.59	A	0.39	A	0.58	A	0.39	A
325	Portola Pw at SR-241 SB Ramps	Irv				0.44	A	0.43	A	0.43	A	0.44	A
327	Barranca Pw at Technology	Irv	P			0.58	A	0.70	B	0.61	B	0.69	B
328	Barranca Pw at I-5 HOV Ramp	Irv			Yes	0.66	B	0.45	A	0.64	B	0.43	A
329	Barranca Pw at ICD	Irv			Yes	0.67	B	0.67	B	0.68	B	0.68	B
330	Barranca Pw at Pacifica	Irv			Yes	0.59	A	0.77	C	0.59	A	0.77	C
333	Pacifica at Gateway	Irv			Yes	0.66	B	0.75	C	0.69	B	0.77	C
335	Alton Pw at Portola Pw	Irv				0.55	A	0.47	A	0.49	A	0.37	A
336	Alton Pw at SR-241 Ramps	LF				0.68	B	0.58	A	0.66	B	0.58	A
338	Alton Pw at Irvine Bl	LF	F		Yes	0.92	E	0.90	D	0.94	E	0.88	D
339	Alton Pw at Toledo Wy	Irv				0.69	B	0.63	B	0.80	C	0.67	B
340	Alton Pw at Jeronimo Rd	Irv				0.66	B	0.54	A	0.67	B	0.54	A
341	Alton Pw at Barranca Pw	Irv				0.58	A	0.73	C	0.57	A	0.75	C
343	Alton Pw at Ada	Irv				0.47	A	0.73	C	0.51	A	0.77	C
344	Alton Pw at Technology	Irv	P			0.58	A	0.88	D	0.59	A	0.87	D
345	Alton Pw at I-5 NB Ramps	Irv	F		Yes	0.90	D	0.52	A	0.88	D	0.52	A
346	Alton Pw at Enterprise	Irv			Yes	0.72	C	0.76	C	0.70	B	0.77	C
348	Alton Pw at ICD	Irv	P		Yes	0.57	A	0.75	C	0.57	A	0.75	C
350	Alton Pw at Pacifica	Irv			Yes	0.56	A	0.55	A	0.58	A	0.55	A
351	Fortune Dr /I-5 SB Ramps	Irv			Yes	0.49	A	0.79	C	0.49	A	0.78	C
357	Enterprise Dr at Fortune Dr	Irv			Yes	0.49	A	0.50	A	0.49	A	0.50	A
358	ICD at Enterprise Dr	Irv	P		Yes	0.63	B	0.50	A	0.64	B	0.52	A
359	ICD at I-405 SB Ramps	Irv	P		Yes	0.57	A	0.53	A	0.58	A	0.53	A
361	Bake Pw at Portola Pw	LF				0.56	A	0.82	D	0.55	A	0.81	D
362	Bake Pw at Irvine Bl	Irv	F		Yes	0.81	D	0.89	D	0.81	D	0.91	E

Table 12 (Cont.)

**ITAM 8.4-10 Post 2030 Baseline ICU Comparison
With 2012 Modified Project, Option 2 HS Alternative**

ID	Intersection	Juris.				Post 2030 2011 Approved Project (Baseline)				Post 2030 With Modified Project - HS Alternative			
			Funded NITM ¹	ATMS App.	LOS E OK	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
363	Bake Pw at Toledo Wy	Irv				0.78	C	0.66	B	0.77	C	0.67	B
364	Bake Pw at Jeronimo Rd	Irv	F			0.82	D	0.67	B	0.81	D	0.68	B
365	Bake Pw at Muirlands Bl	Irv				0.75	C	0.91	E	0.74	C	0.91	E
366	Bake Pw at Rockfield Bl	Irv				0.71	C	0.86	D	0.70	B	0.88	D
367	Bake Pw at I-5 NB Ramps	Irv			Yes	0.84	D	0.59	A	0.82	D	0.59	A
368	Bake Pw at I-5 SB Ramps	Irv	F		Yes	0.81	D	0.85	D	0.81	D	0.87	D
371	Bake Pw at Research Dr	Irv				0.57	A	0.81	D	0.58	A	0.81	D
372	Bake Pw at ICD	Irv				0.53	A	0.52	A	0.54	A	0.52	A
373	Lake Forest Dr at SR-241 NB Ramp	LF				0.33	A	0.44	A	0.33	A	0.42	A
374	Lake Forest Dr at Portola Pw	LF				0.63	B	0.89	D	0.62	B	0.89	D
375	Lake Forest Dr at SR-241 SB Ramp	LF				0.57	A	0.53	A	0.56	A	0.51	A
376	Lake Forest Dr at Trabuco Rd	LF				0.84	D	0.89	D	0.84	D	0.89	D
377	Lake Forest Dr at Toledo Wy	LF				0.62	B	0.59	A	0.64	B	0.59	A
378	Lake Forest Dr at Jeronimo Rd	LF	P			0.73	C	0.86	D	0.74	C	0.86	D
379	Lake Forest Dr at Muirlands Bl	LF	F			0.75	C	0.84	D	0.75	C	0.85	D
380	Lake Forest Dr at Rockfield Bl	LF	P			0.86	D	0.87	D	0.86	D	0.87	D
381	Lake Forest Dr at I-5 NB Ramps	LF				0.71	C	0.74	C	0.70	B	0.76	C
383	Lake Forest Dr at Avenida Carlota/I-5 SB	Irv	F		Yes	0.63	B	0.79	C	0.64	B	0.79	C
385	Lake Forest Dr at ICD	Irv			Yes	0.43	A	0.55	A	0.44	A	0.56	A
386	Ridge Route Dr at Muirlands Bl	LF				0.57	A	0.70	B	0.57	A	0.69	B
387	Ridge Route Dr at Rockfield Bl	LF	P			0.52	A	0.73	C	0.48	A	0.60	A
388	Ridge Route Dr at Avenida Carlota	LH				0.53	A	0.68	B	0.53	A	0.68	B
389	Ridge Route at Moulton Pw	LH/LW				0.53	A	0.77	C	0.52	A	0.77	C
390	Paseo de Valencia at Ave	LH/LW	P			0.79	C	0.88	D	0.79	C	0.88	D
391	Santa Maria Av at Moulton Pw	LH/LW				0.50	A	0.74	C	0.50	A	0.75	C
392	El Toro Rd at Muirlands Bl	LF				0.71	C	0.85	D	0.71	C	0.84	D
393	El Toro Rd at Rockfield Bl	LF				0.61	B	0.74	C	0.61	B	0.74	C
394	El Toro Rd at I-5 NB Ramps	LF			Yes	0.82	D	0.85	D	0.82	D	0.85	D
396	El Toro Rd at Avenida Carlota	LH	P		Yes	0.60	A	0.87	D	0.59	A	0.87	D
397	El Toro Rd at Paseo de Valencia	LH/LW				0.68	B	0.84	D	0.69	B	0.84	D
398	El Toro Rd at Moulton Pw	LW			Yes	0.85	D	0.93	E	0.85	D	0.92	E
399	El Toro Rd at Aliso Creek Rd	AV				0.53	A	0.63	B	0.53	A	0.64	B
400	El Toro Rd at SR-73 NB Ramps	LB			Yes	0.58	A	0.57	A	0.58	A	0.58	A
401	El Toro Rd at SR-73 SB Ramps	LB			Yes	0.44	A	0.61	B	0.44	A	0.61	B
402	I-5 NB Ramps at Trabuco Rd	Irv				0.63	B	0.64	B	0.59	A	0.66	B
403	SR-241 NB Ramps at Jeffery Rd	OC				0.35	A	0.25	A	0.34	A	0.26	A
404	SR-241 SB Ramps at Jeffery Rd	OC				0.27	A	0.21	A	0.27	A	0.22	A
405	Laguna Canyon Rd at Quail Hill Pw	Irv				0.42	A	0.38	A	0.43	A	0.38	A
406	Laguna Canyon Rd at Lake Forest Dr	Irv	F			0.66	B	0.54	A	0.67	B	0.55	A
407	Laguna Canyon Rd at Bake Pw	Irv	F			0.75	C	0.66	B	0.76	C	0.67	B
408	Laguna Canyon Rd at Santa Maria Dr	OC				0.80	C	0.59	A	0.80	C	0.60	A
409	Bake Pw at Commercentre Dr	LF				0.66	B	0.74	C	0.65	B	0.74	C
410	Bake Pw at Lake Forest Dr	Irv				0.46	A	0.45	A	0.46	A	0.45	A
411	Bake Pw at Ridge Route	Irv				0.51	A	0.45	A	0.52	A	0.46	A
412	Ridge Route Dr at Trabuco Rd	LF				0.57	A	0.70	B	0.57	A	0.71	C
413	Ridge Route Dr at Toledo Wy	LF				0.42	A	0.40	A	0.43	A	0.39	A
414	Ridge Route Dr at Jeronimo Rd	LF				0.50	A	0.66	B	0.51	A	0.66	B
415	Glenn Ranch Rd at Portola Pw	LF				0.65	B	0.67	B	0.65	B	0.66	B
416	Portola Pw East at SR-241 Ramps	LF				0.51	A	0.67	B	0.51	A	0.66	B
417	El Toro Rd at Portola Pw	LF				0.82	D	1.01	F	0.83	D	0.99	E

Table 12 (Cont.)

**ITAM 8.4-10 Post 2030 Baseline ICU Comparison
With 2012 Modified Project, Option 2 HS Alternative**

ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	Post 2030 2011 Approved Project (Baseline)				Post 2030 With Modified Project - HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
418	El Toro Rd at Trabuco Rd	LF			Yes	0.77	C	0.78	C	0.76	C	0.77	C
419	El Toro Rd at Toledo Wy	LF				0.52	A	0.52	A	0.51	A	0.52	A
420	El Toro Rd at Jeronimo Rd	LF	P			0.73	C	0.67	B	0.72	C	0.67	B
421	Los Alisos Bl at Trabuco Rd	MV				0.76	C	0.70	B	0.76	C	0.70	B
422	Los Alisos Bl at Jeronimo Rd	LF/MV	P			0.89	D	0.89	D	0.89	D	0.89	D
423	Muirlands Bl at Los Alisos Bl	LF/MV	P			0.86	D	0.84	D	0.86	D	0.84	D
424	Los Alisos Bl at Rockfield Bl	LF	P			0.63	B	0.79	C	0.64	B	0.80	C
425	Los Alisos Bl at Avenida Carlota	LH				0.52	A	0.60	A	0.53	A	0.60	A
426	Los Alisos Bl at Paseo de Valencia	LH/LW				0.60	A	0.84	D	0.60	A	0.83	D
427	Moulton Pw at Glenwood/Indian Creek	AV/LH				0.73	C	0.69	B	0.71	C	0.69	B
428	Laguna Hills Dr at Paseo de Valencia	LH/LW				0.75	C	0.83	D	0.76	C	0.83	D
429	Moulton Pw at Laguna Hills Dr	AV/LH				0.82	D	0.84	D	0.82	D	0.82	D
430	Trabuco Rd at Alicia Pw	MV				0.72	C	0.73	C	0.71	C	0.73	C
431	Jeronimo Rd at Alicia Pw	MV				0.78	C	0.77	C	0.78	C	0.76	C
432	Alicia Pw at Muirlands Bl	MV	P			0.68	B	0.83	D	0.67	B	0.82	D
433	I-5 NB Ramps at Alicia Pw	MV				0.44	A	0.68	B	0.43	A	0.69	B
434	I-5 SB Ramps at Alicia Pw	LH				0.67	B	0.75	C	0.67	B	0.75	C
435	Alicia Pw at Paseo de Valencia	LH				0.68	B	0.78	C	0.68	B	0.79	C
436	Moulton Pw at Alicia Pw	LH				0.75	C	0.78	C	0.74	C	0.77	C
437	Scientific Wy at ICD	Irv				0.32	A	0.38	A	0.33	A	0.38	A
441	Loop Rd at Jamboree Rd	Tus				0.27	A	0.18	A	0.27	A	0.18	A
444	Sand Canyon Av at Burt Rd	OC				0.87	D	0.88	D	0.90	D	0.89	D
452	Jamboree Rd at Santiago Canyon Rd	Irv				0.67	B	0.67	B	0.73	C	0.70	B
459	Jeffrey at Santiago Canyon Rd	Ora				0.29	A	0.26	A	0.29	A	0.27	A
463	Jamboree Rd at Chapman Av	OC				0.77	C	0.84	D	0.78	C	0.85	D
464	SR-241/SR-261 SB Ramps at Chapman Av	Ora				0.69	B	0.64	B	0.66	B	0.63	B
465	SR-241/SR-261 NB Ramps at Chapman Av	OC				0.58	A	0.69	B	0.60	A	0.61	B
466	SR-241 NB Ramp at Santiago Canyon Rd	OC				0.56	A	0.63	B	0.59	A	0.64	B
468	Jamboree Rd at Canyon View	OC				0.65	B	0.41	A	0.64	B	0.42	A
469	Jamboree Rd at Handy Creek Rd	Ora				0.55	A	0.51	A	0.55	A	0.52	A
470	SR-261 SB Ramps at Handy Creek Rd	Ora				0.34	A	0.15	A	0.33	A	0.14	A
471	SR-261 NB Ramps at Handy Creek Rd	OC				0.14	A	0.29	A	0.15	A	0.29	A
477	El Camino Real N at Bryan Av	Irv				0.43	A	0.47	A	0.43	A	0.47	A
481	Laguna Canyon Rd at Technology	Irv				0.45	A	0.43	A	0.45	A	0.43	A
482	Visions (formerly Road A) at Trabuco Rd	Irv				0.38	A	0.32	A	0.40	A	0.34	A
483	Road C at Trabuco Rd	Irv				0.37	A	0.34	A	0.37	A	0.34	A
484	Sand Canyon at Roosevelt	Irv				0.68	B	0.54	A	0.68	B	0.54	A
485	Sand Canyon at Nightmist	Irv				0.80	C	0.61	B	0.77	C	0.61	B
486	SR-133 SB Ramps at Trabuco Rd	Irv				0.56	A	0.60	A	0.58	A	0.60	A
487	SR-133 NB Ramps at Trabuco Rd	Irv				0.55	A	0.68	B	0.55	A	0.69	B
514	Alton Pw at Rancho Pw	LF				0.64	B	0.76	C	0.62	B	0.76	C
515	Bake Pw N at Rancho Pw North	LF				0.66	B	0.86	D	0.65	B	0.86	D
516	Lake Forest Dr at Rancho Pw North	LF				0.67	B	0.83	D	0.71	C	0.89	D
517	Portola Pw at Rancho Pw	LF				0.63	B	0.70	B	0.62	B	0.70	B
518	Alton Pw at Commercentre	LF				0.63	B	0.76	C	0.61	B	0.76	C
555	Bake Pw at Rancho Pkw	LF				0.70	B	0.73	C	0.69	B	0.74	C
556	Ridge Valley at Portola Pw	Irv				0.71	C	0.68	B	0.69	B	0.67	B
557	O St at C St	Irv				0.40	A	0.36	A	0.39	A	0.36	A
558	O St at Irvine Bl	Irv				0.64	B	0.80	C	0.63	B	0.80	C
559	O St at Trabuco Rd	Irv				0.72	C	0.69	B	0.83	D	0.67	B

Table 12 (Cont.)
ITAM 8.4-10 Post 2030 Baseline ICU Comparison
With 2012 Modified Project, Option 2 HS Alternative

ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	Post 2030 2011 Approved Project (Baseline)				Post 2030 With Modified Project - HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
560	O St at Marine Wy	Irv				0.46	A	0.61	B	0.50	A	0.63	B
562	D St. at Marine Wy	Irv				0.42	A	0.69	B	0.54	A	0.71	C
563	B St. at Irvine Bl	Irv				0.68	B	0.70	B	0.64	B	0.70	B
564	C St. at Marine Wy	Irv				0.46	A	0.59	A	0.61	B	0.58	A
566	Marine Wy at Barranca Pw	Irv				0.64	B	0.63	B	0.63	B	0.62	B
567	Marine Wy at Alton Pw	Irv				0.62	B	0.65	B	0.65	B	0.61	B
568	Marine Wy at Rockfield Bl	Irv				0.70	B	0.59	A	0.47	A	0.42	A
569	Bake Pw at Marine Wy	Irv				0.68	B	0.64	B	0.77	C	0.72	C
571	Portola Springs at Portola Pkwy	Irv				0.70	B	0.59	A	0.70	B	0.57	A
572	Modjeska / A St at Irvine Bl	Irv				0.67	B	0.73	C	0.63	B	0.72	C
603	O St at LN St	Irv				0.39	A	0.32	A	0.37	A	0.30	A
605	O St at LQ St	Irv				0.56	A	0.52	A	0.59	A	0.54	A
608	O St at LV St	Irv				0.36	A	0.33	A	0.39	A	0.36	A
626	LY St at LQ St	Irv				0.37	A	0.36	A	0.45	A	0.40	A
627	LY St at Irvine Bl	Irv				0.53	A	0.59	A	0.51	A	0.59	A
631	LY St at Trabuco Rd	Irv				0.12	A	0.13	A	0.14	A	0.16	A
633	Sterling at Rockfield Bl	Irv				0.24	A	0.31	A	Not Applicable			
637	Sterling at Muirlands Bl	Irv				0.35	A	0.39	A	0.35	A	0.47	A
640	Thomas at Muirlands Bl.	Irv				0.26	A	0.40	A	0.26	A	0.43	A
782	A St at LQ St	Irv				0.32	A	0.28	A	0.33	A	0.32	A
787	Z St at LQ St	Irv				0.30	A	0.27	A	0.27	A	0.27	A
790	Z St at Irvine Bl	Irv				0.71	C	0.69	B	0.68	B	0.70	B
798	B St at LQ St	Irv				0.47	A	0.38	A	0.36	A	0.38	A
799	"B" Street at Marine Way	Irv				0.47	A	0.55	A	0.72	C	0.65	B
800	LQ St at Irvine Bl	Irv				0.82	D	0.72	C	0.77	C	0.71	C
820	Fairbanks at Irvine Bl.	Irv				0.70	B	0.80	C	0.71	C	0.81	D
821	Alton Pkwy. at Fairbanks	Irv				0.55	A	0.56	A	0.66	B	0.69	B
822	"F" Street at Irvine Bl.	Irv				Not Applicable				0.70	B	0.73	C
831	"G" Street at Marine Way	Irv				Not Applicable				0.55	A	0.59	A
832	Fairbanks at Astor St.	Irv				0.14	A	0.17	A	0.54	A	0.58	A

Bold = Deficient Intersection

1. Fully Funded (F), Partially Funded (P)

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 13

Post-2030 Intersection ICU LOS with 2012 Modified Project
Option 2, High School Alternative Impact Locations

Location	Peak Hour	2011 Approved Project (Baseline)		With 2012 Modified Project Option 2 - HS Alternative	
		ICU	LOS	ICU	LOS
Intersection					
286. Jeffrey Rd. & Roosevelt	AM	0.89	D	0.92	E
291. Jeffrey Rd. & Alton Pkwy.	AM	0.90	D	0.92	E
321. Laguna Canyon & Old Laguna Canyon	AM	0.92	E	0.94	E
Mainline (Directional Segments)					
I-405 Northbound, n/o Jeffrey	AM	1.25	F	1.29	F

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 14

**Post-2030 Freeway/Tollway Ramp LOS Summary
2012 Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project (Baseline)						2012 Modified Project - HS Alternative					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	LOS
I-5 at Jambooree	SB Direct On	1	1,500	414	0.28	A	1,140	0.76	C	407	0.27	A	1,130	0.75	C
	SB Loop On	1	1,080	556	0.51	A	480	0.44	A	570	0.53	A	490	0.45	A
	NB Direct On	1	1,080	476	0.44	A	480	0.44	A	474	0.44	A	480	0.44	A
	NB Loop On	1	1,080	678	0.63	B	660	0.61	B	676	0.63	B	690	0.64	B
	SB Off	1	1,500	1,428	0.95	E	1,435	0.96	E	1,429	0.95	E	1,457	0.97	E
	NB Off	1	1,500	1,559	1.04	F	1,314	0.88	D	1,570	1.05	F	1,328	0.89	D
	SB Direct On	1	900	240	0.27	A	300	0.33	A	240	0.27	A	300	0.33	A
I-5 at Culver	SB Loop On	1	900	350	0.39	A	250	0.28	A	341	0.38	A	240	0.27	A
	NB Direct On	1	900	714	0.79	C	179	0.20	A	718	0.80	C	179	0.20	A
	NB Loop On	1	1,500	1,080	0.72	C	590	0.39	A	1,080	0.72	C	590	0.39	A
	SB Off	2	2,250	935	0.42	A	2,033	0.90	D	929	0.41	A	2,060	0.92	E
	NB Off	1	1,500	333	0.22	A	490	0.33	A	334	0.22	A	480	0.32	A
	SB On	1	1,080	1,269	1.18	F	829	0.77	C	1,264	1.17	F	840	0.78	C
	NB Direct On	1	1,080	610	0.56	A	240	0.22	A	680	0.63	B	260	0.24	A
I-5 at Jeffrey	NB Loop On	1	1,500	250	0.17	A	280	0.19	A	250	0.17	A	280	0.19	A
	SB Off	1	1,500	610	0.41	A	1,111	0.74	C	609	0.41	A	1,120	0.75	C
	NB Off	2	2,250	940	0.42	A	1,433	0.64	B	950	0.42	A	1,420	0.63	B
	SB On	1	1,500	631	0.42	A	750	0.50	A	641	0.43	A	750	0.50	A
	NB On	1	1,500	751	0.50	A	1,600	1.07	F	920	0.61	B	1,591	1.06	F
	SB Off	1	1,500	1,855	1.24	F	828	0.55	A	1,785	1.19	F	901	0.60	A
	NB Off	2	2,250	711	0.32	A	709	0.32	A	710	0.32	A	729	0.32	A
I-5 at Barranca	NB On	1	1,500	30	0.02	A	240	0.16	A	30	0.02	A	210	0.14	A
	SB Off	1	1,500	299	0.20	A	111	0.07	A	268	0.18	A	102	0.07	A
	SB On	1	1,500	341	0.23	A	581	0.39	A	361	0.24	A	610	0.41	A
	NB Direct On	2	1,800	270	0.15	A	1,280	0.71	C	320	0.18	A	1,260	0.70	B
	NB Loop On	1	1,500	582	0.39	A	151	0.10	A	567	0.38	A	149	0.10	A
	SB Off	2	2,250	2,198	0.98	E	970	0.43	A	2,160	0.96	E	970	0.43	A
	NB Off	2	2,250	1,161	0.52	A	320	0.14	A	1,151	0.51	A	310	0.14	A
I-5 at Bake	SB Direct On	1	1,500	90	0.06	A	142	0.09	A	97	0.06	A	131	0.09	A
	SB Loop On	1	1,080	371	0.34	A	907	0.84	D	403	0.37	A	866	0.80	C
	NB Direct On	2	3,400	1,335	0.39	A	1,199	0.35	A	1,379	0.41	A	1,192	0.35	A
	NB Loop On	1	1,500	320	0.21	A	1,000	0.67	B	320	0.21	A	1,000	0.67	B
	SB Off	2	3,000	2,992	1.00	E	2,433	0.81	D	2,991	1.00	E	2,436	0.81	D
	NB Off	2	3,000	1,502	0.50	A	625	0.21	A	1,407	0.47	A	606	0.20	A

Table 14 (Cont.)

**Post-2030 Freeway/Tollway Ramp LOS Summary
2012 Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project (Baseline)						2012 Modified Project - HS Alternative					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	LOS
I-5 at Lake Forest	SB Direct On	1	1,500	303	0.20	A	875	0.58	A	307	0.20	A	866	0.58	A
	SB Loop On	1	1,080	412	0.38	A	687	0.64	B	415	0.38	A	683	0.63	B
	NB On	2	1,800	1,610	0.87	D	1,440	0.78	C	1,393	0.77	C	1,057	0.59	A
	SB Off	2	3,000	1,759	0.59	A	2,323	0.77	C	1,759	0.59	A	2,324	0.77	C
	NB Off	1	1,500	927	0.63	B	584	0.39	A	1,490	0.99	E	724	0.48	A
	SB Direct On	1	1,080	167	0.15	A	143	0.13	A	162	0.15	A	143	0.13	A
	SB Loop On	1	1,500	423	0.28	A	502	0.33	A	425	0.28	A	500	0.33	A
	NB Direct On	1	1,500	1,525	1.02	F	1,118	0.75	C	1,545	1.03	F	1,119	0.75	C
I-5 at El Toro	NB Loop On	1	1,500	1,158	0.77	C	1,040	0.69	B	1,243	0.83	D	1,265	0.84	D
	SB Off	2	2,250	2,910	1.29	F	2,959	1.32	F	2,912	1.29	F	2,978	1.32	F
	NB Off	1	1,500	1,275	0.85	D	1,312	0.87	D	1,320	0.88	D	1,211	0.81	D
	SB Direct On	1	1,080	150	0.14	A	203	0.19	A	151	0.14	A	203	0.19	A
	SB Loop On	1	1,500	821	0.55	A	753	0.50	A	826	0.55	A	752	0.50	A
	NB Direct On	1	1,500	1,230	0.82	D	890	0.59	A	1,230	0.82	D	900	0.60	A
	NB Loop On	1	1,500	1,320	0.88	D	840	0.56	A	1,310	0.87	D	840	0.56	A
	SB Off	2	3,000	2,097	0.70	B	2,200	0.73	C	2,096	0.70	B	2,200	0.73	C
I-5 at Alicia	NB Off	1	1,500	310	0.21	A	1,091	0.73	C	312	0.21	A	1,093	0.73	C
	SB Direct On	1	1,500	262	0.17	A	736	0.49	A	273	0.18	A	734	0.49	A
	SB Loop On	1	900	252	0.28	A	332	0.37	A	252	0.28	A	342	0.38	A
	NB Direct On	1	1,500	930	0.62	B	660	0.44	A	930	0.62	B	660	0.44	A
	NB Loop On	1	1,500	590	0.39	A	400	0.27	A	580	0.39	A	400	0.27	A
	SB Off	2	3,000	830	0.28	A	1,380	0.46	A	831	0.28	A	1,380	0.46	A
	NB Off	1	1,500	1,293	0.86	D	1,286	0.86	D	1,316	0.88	D	1,286	0.86	D
	SB Direct On	1	1,500	1,060	0.71	C	1,120	0.75	C	1,052	0.70	B	1,120	0.75	C
I-405 at Jeffrey	SB Loop On	1	900	300	0.33	A	300	0.33	A	280	0.31	A	310	0.34	A
	NB Direct On	1	1,500	1,320	0.88	D	600	0.40	A	1,342	0.89	D	600	0.40	A
	NB Loop On	1	900	330	0.37	A	110	0.12	A	320	0.36	A	100	0.11	A
	SB Off	1	1,500	613	0.41	A	754	0.50	A	624	0.42	A	776	0.52	A
	NB Off	2	2,250	1,478	0.66	B	1,923	0.85	D	1,459	0.65	B	1,890	0.84	D
	SB Direct On	1	1,500	310	0.21	A	230	0.15	A	310	0.21	A	230	0.15	A
	SB Loop On	1	1,500	190	0.13	A	440	0.29	A	190	0.13	A	420	0.28	A
	NB Direct On	1	1,500	1,202	0.80	C	1,360	0.91	E	1,255	0.84	D	1,363	0.91	E
I-405 at Sand Canyon	NB Loop On	1	1,500	641	0.43	A	370	0.25	A	643	0.43	A	371	0.25	A
	SB Off	1	1,500	1,977	1.32	F	1,035	0.69	B	1,952	1.30	F	1,105	0.74	C
	NB Off	1	1,500	728	0.49	A	528	0.35	A	709	0.47	A	517	0.34	A

Table 14 (Cont.)

Post-2030 Freeway/Tollway Ramp LOS Summary 2012 Modified Project - Option 2 HS Alternative

Interchange	Ramp ¹	Lanes	Capacity	2011 Approved Project (Baseline)						2012 Modified Project - HS Alternative					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	LOS	Volume	V/C ²	LOS
I-405 at Irvine Center	SB Direct On	1	900	60	0.07	A	90	0.10	A	60	0.07	A	90	0.10	A
	SB Loop On	1	900	260	0.29	A	410	0.46	A	260	0.29	A	410	0.46	A
	NB Direct On	1	1,500	249	0.17	A	584	0.39	A	240	0.16	A	575	0.38	A
	NB Loop On	1	1,500	252	0.17	A	1,230	0.82	D	255	0.17	A	1,219	0.81	D
	SB Off	2	2,250	2,012	0.89	D	1,419	0.63	B	2,023	0.90	D	1,459	0.65	B
	NB Off	2	3,000	1,201	0.40	A	410	0.14	A	1,189	0.40	A	420	0.14	A
	SR-133 at SR-241				2	4,000	569	0.14	A	2,383	0.60	A	572	0.14	A
	NB SR-133 to SB SR-241	2	4,000	3,117	0.78	C	989	0.25	A	3,165	0.79	C	973	0.24	A
	NB SR-241 to SB SR-133	2	4,000	1,864	0.47	A	3,356	0.84	D	1,990	0.50	A	3,338	0.83	D
	SB SR-133 to NB SR-241	2	4,000	4,058	1.01	F	1,892	0.47	A	4,022	1.01	F	1,971	0.49	A
SR-133 at Irvine	SB On	1	1,500	384	0.26	A	330	0.22	A	408	0.27	A	320	0.21	A
	NB Direct On	1	1,500	190	0.13	A	300	0.20	A	260	0.17	A	260	0.17	A
	NB Loop On	1	1,500	130	0.09	A	200	0.13	A	130	0.09	A	200	0.13	A
	SB Off	2	2,250	441	0.20	A	200	0.09	A	440	0.20	A	209	0.09	A
	NB Off	1	1,500	200	0.13	A	598	0.40	A	191	0.13	A	618	0.41	A
	SB On	1	1,500	760	0.51	A	680	0.45	A	762	0.51	A	680	0.45	A
	NB On	1	1,500	140	0.09	A	570	0.38	A	160	0.11	A	562	0.37	A
	SB Off	1	1,500	700	0.47	A	280	0.19	A	700	0.47	A	301	0.20	A
	NB Off	1	1,500	857	0.57	A	952	0.63	B	860	0.57	A	970	0.65	B
	SR-133 at I-5														
SR-133 at Trabuco	NB I-5 to NB SR-133	1	2,000	1,072	0.54	A	1,672	0.84	D	1,146	0.57	A	1,689	0.84	D
	SB SR-133 to SB I-5	1	2,000	1,961	0.98	E	1,176	0.59	A	1,964	0.98	E	1,167	0.58	A
	SB SR-133 to NB I-5	1	2,000	1,309	0.65	B	458	0.23	A	1,323	0.66	B	458	0.23	A
	SB I-5 to NB SR-133	1	2,000	616	0.31	A	1,400	0.70	B	616	0.31	A	1,411	0.71	C
	SB I-5 to SB SR-133	2	4,000	2,083	0.52	A	1,800	0.45	A	2,114	0.53	A	1,801	0.45	A
	NB SR-133 to NB I-5	2	4,000	2,222	0.56	A	2,149	0.54	A	2,229	0.56	A	2,164	0.54	A
	SB Loop On	1	1,080	141	0.13	A	1,223	1.13	F	149	0.14	A	1,200	1.11	F
	NB Direct On	1	1,080	198	0.18	A	623	0.58	A	187	0.17	A	614	0.57	A
	NB Loop On	1	1,080	411	0.38	A	1,516	1.40	F	420	0.39	A	1,500	1.39	F
	SB Off	2	3,000	2,340	0.78	C	620	0.21	A	2,320	0.77	C	592	0.20	A
SR-133 at Barranca	NB Off	2	2,250	1,516	0.67	B	370	0.66	A	1,495	0.66	B	401	0.18	A
	SR-133 at I-405				1	2,000	953	0.48	A	993	0.50	A	966	0.48	A

Table 14 (Cont.)

**Post-2030 Freeway/Tollway Ramp LOS Summary
2012 Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project (Baseline)				2012 Modified Project - HS Alternative				
				AM Peak Hour Volume	V/C ²	LOS	PM Peak Hour Volume	V/C ²	LOS	AM Peak Hour Volume	V/C ²	LOS
NB SR-133 to SB I-405		1	2,000	50	0.03	A	28	0.01	A	48	0.02	A
SB SR-133 to NB I-405		2	4,000	1,117	0.28	A	586	0.15	A	1,206	0.30	A
NB SR-133 to NB I-405		2	4,000	1,313	0.33	A	1,037	0.26	A	1,378	0.34	A
SB I-405 to NB SR-133		1	2,000	1,650	0.83	D	1,654	0.83	D	1,625	0.81	D
SB I-405 to SB SR-133		1	2,000	621	0.31	A	687	0.34	A	614	0.31	A
NB I-405 to SB SR-133		1	2,000	203	0.10	A	258	0.13	A	202	0.10	A
SR-241 at Chapman /	SB On	2	1,800	1,104	0.61	B	468	0.26	A	1,080	0.60	A
	NB On	1	1,500	480	0.32	A	402	0.27	A	440	0.29	A
	SB Off	1	1,500	1,050	0.70	B	540	0.36	A	550	0.37	A
	NB Off	1	1,500	807	0.54	A	1,153	0.77	C	906	0.60	A
SR-241 at Jeffrey	SB On	1	1,500	37	0.02	A	23	0.02	A	38	0.03	A
	NB On	1	1,500	400	0.27	A	340	0.23	A	400	0.27	A
	SB Off	1	1,500	522	0.35	A	394	0.26	A	529	0.35	A
	NB Off	1	1,500	22	0.01	A	71	0.05	A	22	0.01	A
SR-241 at Portola (West)	SB On	1	1,500	170	0.11	A	410	0.27	A	170	0.11	A
	NB On	1	1,500	120	0.08	A	33	0.02	A	135	0.09	A
	SB Off	1	1,500	49	0.03	A	136	0.09	A	49	0.03	A
	NB Off	1	1,500	590	0.39	A	209	0.14	A	589	0.39	A
SR-241 at Alton	SB On	1	1,500	440	0.15	A	1,253	0.53	A	458	0.31	A
	NB On	1	1,500	140	0.35	A	400	0.21	A	435	0.29	A
	SB Off	1	1,500	549	0.19	A	170	0.24	A	696	0.46	A
	NB Off	2	2,250	1,375	0.68	B	679	0.21	A	997	0.44	A
SR-241 at Lake Forest	NB On	2	2,250	110	0.10	A	630	0.28	A	223	0.10	A
	SB Off	1	1,500	670	0.52	A	301	0.22	A	822	0.55	A
	NB On	2	2,250	770	0.34	A	1,430	0.95	E	331	0.22	A
	SB Off	1	1,500	360	0.24	A	500	0.33	A	528	0.35	A
	NB Off	2	2,250	2,150	0.96	E	550	0.24	A	2,174	0.97	E
SR-261 at Chapman	SB On	1	1,500	920	0.61	B	240	0.16	A	900	0.60	A
	NB Off	1	1,500	140	0.09	A	712	0.47	A	150	0.10	A
SR-241 at Portola (East)	SB On	1	1,500	174	0.12	A	100	0.07	A	175	0.12	A
	NB On	1	1,500	210	0.14	A	140	0.09	A	210	0.14	A
	SB Off	1	1,500	102	0.07	A	89	0.06	A	103	0.07	A
	NB Off	1	1,500	100	0.07	A	106	0.07	A	100	0.07	A

Table 14 (Cont.)

**Post-2030 Freeway/Tollway Ramp LOS Summary
2012 Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project (Baseline)				2012 Modified Project - HS Alternative			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Volume	V/C ²	Volume	V/C ²	Volume	V/C ²	Volume	V/C ²
SR-261 at Irvine	SB On	1	1,500	790	0.53	A	320	0.21	A	790	0.53
	NB On	1	1,500	230	0.15	A	160	0.11	A	220	0.15
	SB Off	1	1,500	81	0.05	A	71	0.05	A	80	0.05
	NB Off	1	1,500	212	0.14	A	372	0.25	A	222	0.15

¹ NB = Northbound; SB = Southbound.

² V/C = Volume/Capacity Ratio.

BOLD = Unsatisfactory level of service.

*Heritage Fields Project 2012 GPAZC Traffic Study
City of Irvine, CA (JN-07151-12.1 Report Tables)*
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TAM 8.4-10 Post 2030 Baseline Peak Hour Volume / Capacity Comparison
2012 Modified Project - Option 2 HS Alternative

Table 15

Location	Direction	Lanes	Capacity	2011 Approved Project (Baseline)				2012 Modified Project - HS Alternative				
				AM Peak		PM Peak		AM Peak		PM Peak		
				Volume	V/C Ratio	Volume	LOS	Volume	V/C Ratio	Volume	V/C Ratio	
I-5	n/o Newport	NB	5+1H	11,600	14,869	1,28	F	11,906	1,03	F	15,151	1,31
		SB	5+1H	11,600	9,609	0,83	D	9,886	0,85	D	9,611	0,83
	n/o Red Hill	NB	5+1H	11,600	14,127	1,22	F	11,321	0,98	E	14,409	1,24
		SB	5+1H	11,600	11,604	1,00	E	11,898	1,03	F	11,501	0,99
	n/o Tustin Ranch	NB	5+1H	11,600	14,719	1,27	F	11,978	1,03	F	15,030	1,30
		SB	5+1H	11,600	12,338	1,06	F	12,585	1,08	F	12,239	1,06
	n/o Jamboree	NB	5+1H	11,600	14,379	1,24	F	11,695	1,01	F	14,693	1,27
		SB	5+1H	11,600	12,041	1,04	F	12,258	1,06	F	11,954	1,03
	n/o Culver	NB	5+1H	11,600	14,562	1,26	F	11,676	1,01	F	14,911	1,29
		SB	5+1H	11,600	11,761	1,01	F	12,325	1,06	F	11,648	1,00
I-405	n/o Jeffrey	NB	5+1H	11,600	12,742	1,10	F	10,925	0,94	E	13,067	1,13
		SB	5+1H	11,600	11,418	0,98	E	11,150	0,96	E	11,324	0,98
	n/o I-405	NB	5+1H	11,600	12,738	1,10	F	11,048	0,95	E	13,009	1,12
		SB	5+1H	11,600	11,922	1,03	F	11,439	0,99	E	11,788	1,02
	n/o Alton	NB	4+1H	9,600	10,150	1,06	F	8,803	0,92	E	10,311	1,07
		SB	4+1H	9,600	9,445	0,98	E	9,169	0,96	E	9,394	0,98
	n/o I-405	NB	4+1H	9,600	10,637	1,11	F	7,686	0,80	C	10,739	1,12
		SB	4+1H	9,600	7,764	0,81	D	9,441	0,98	E	7,746	0,81
	n/o Bake	NB	9+2H	21,500	20,941	0,97	E	14,080	0,65	B	21,080	0,98
		SB	9+2H	21,500	11,837	0,55	A	16,140	0,75	C	11,830	0,55
I-405	n/o Lake Forest	NB	8+2H	19,500	20,952	1,07	F	13,034	0,67	B	20,938	1,07
		SB	8+2H	19,500	12,132	0,62	B	16,829	0,86	D	12,162	0,62
	n/o El Toro	NB	5+2H	13,500	20,016	1,48	F	12,128	0,90	D	19,931	1,48
		SB	5+2H	13,500	10,076	0,75	C	15,465	1,15	F	10,118	0,75
	n/o Alicia	NB	4+1H	9,600	17,012	1,77	F	10,138	1,06	F	16,894	1,76
		SB	4+1H	9,600	7,863	0,82	D	12,290	1,28	F	7,837	0,82
	s/o Alicia	NB	4+1H	9,600	13,115	1,37	F	7,629	0,79	C	13,015	1,36
		SB	4+1H	9,600	6,360	0,66	B	10,338	1,08	F	6,404	0,67
	n/o Jeffrey	NB	4+1H	9,600	12,039	1,25	F	9,000	0,94	E	12,336	1,29
		SB	4+1H	9,600	9,134	0,95	E	10,181	1,06	F	9,084	0,95
SR-133	n/o Sand Cyn	NB	4+1H	9,600	12,428	1,29	F	9,446	0,98	E	12,693	1,32
		SB	4+1H	9,600	9,342	0,97	E	10,085	1,05	F	9,253	0,96
	n/o SR-133	NB	4+1H	9,600	12,249	1,28	F	8,481	0,88	D	12,443	1,30
		SB	4+1H	9,600	8,200	0,85	D	9,628	1,00	E	8,144	0,85
	n/o Irvine Center	NB	4+1H	9,600	10,023	1,04	F	7,113	0,74	C	10,061	1,05
		SB	4+1H	9,600	6,932	0,72	C	8,308	0,87	D	6,920	0,72
	n/o I-5	NB	4+1H	9,600	7,326	0,76	C	4,076	0,42	A	7,374	0,77
		SB	4+1H	9,600	6,074	0,63	B	8,171	0,85	D	6,050	0,63
	n/o Irvine Blvd	NB	4+1H	9,600	2,434	0,25	A	5,740	0,60	A	2,562	0,27
		SB	4+1H	9,600	7,176	0,75	C	2,882	0,30	A	7,187	0,75
SR-133	s/o Irvine Blvd	NB	3+1H	7,600	2,166	0,29	A	5,517	0,73	C	2,224	0,29
		SB	3+1H	7,600	6,591	0,87	D	2,730	0,36	A	6,673	0,88
	n/o I-5	NB	3+1H	7,600	2,023	0,27	A	4,953	0,65	B	2,069	0,27
		SB	3+1H	7,600	4,604	0,61	B	1,995	0,26	A	4,678	0,62
	s/o I-5	NB	3	6,000	3,407	0,57	A	4,977	0,83	D	3,395	0,56
SR-133	n/o I-405	NB	3	6,000	5,463	0,91	E	3,295	0,55	A	5,565	0,93
		SB	3	6,000	4,143	0,69	B	3,785	0,63	B	4,102	0,68

Table 15 (Cont.)

TAM 8.4-10 Post 2030 Baseline Peak Hour Volume / Capacity Comparison
2012 Modified Project - Option 2 HS Alternative

	Location	Direction	Lanes	Capacity	2011 Approved Project (Baseline)			2012 Modified Project - HS Alternative				
					AM Peak	PM Peak	LOS	Volume	V/C Ratio	LOS	Volume	V/C Ratio
SR-241	n/o SR-133	NB	3+1H	7,600	5,531	0.73	C	5,638	0.74	C	5,744	0.76
		SB	3+1H	7,600	6,598	0.87	D	4,896	0.64	B	6,513	0.86
SR-241	n/o Portola (West)	NB	4+1H	9,600	6,783	0.71	C	3,270	0.34	A	6,918	0.72
		SB	4+1H	9,600	3,110	0.32	A	5,388	0.56	A	3,062	0.32
SR-261	n/o Alton	NB	4+1H	9,600	6,905	0.72	C	3,354	0.35	A	7,011	0.73
		SB	4+1H	9,600	3,233	0.34	A	5,528	0.58	A	3,179	0.33
SR-261	n/o Lake Forest	NB	4+1H	9,600	7,670	0.80	C	3,103	0.32	A	7,698	0.80
		SB	4+1H	9,600	2,777	0.29	A	5,979	0.62	B	2,784	0.29
SR-261	n/o Portola	NB	3+1H	7,600	1,191	0.16	A	3,141	0.41	A	1,191	0.16
		SB	3+1H	7,600	3,961	0.52	A	1,292	0.17	A	4,039	0.53
SR-261	n/o Irvine Blvd	NB	3+1H	7,600	692	0.09	A	2,804	0.37	A	685	0.09
		SB	3+1H	7,600	3,654	0.48	A	910	0.12	A	3,749	0.49
SR-261	s/o Irvine Blvd	NB	3+1H	7,600	976	0.13	A	3,547	0.47	A	983	0.13
		SB	3+1H	7,600	4,297	0.57	A	1,299	0.17	A	4,399	0.58
SR-261	n/o Chapman/Sant. Cyn	NB	3+1H	7,600	6,062	0.80	C	8,242	1.08	F	6,131	0.81
		SB	3+1H	7,600	10,422	1.37	F	5,655	0.74	C	9,956	1.31

BOLD Deficient Segment

*Heritage Fields Project 2012 GPA/ZC Traffic Study
 City of Irvine, CA (JN:07151-12.1 Report Tables)*

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Table 16

**Post-2030 Intersection ICU LOS with 2012 Modified Project
Option 2, High School Alternative Impact Locations with Proposed Mitigation**

Location	Peak Hour	2011 Approved Project (Baseline)		With 2012 Modified Project Option 2 - HS Alternative		With Improvement	
		ICU	LOS	ICU	LOS	ICU	LOS
Intersection							
286. Jeffrey Rd. & Roosevelt	AM	0.89	D	0.92	E	0.87	D
291. Jeffrey Rd. & Alton Pkwy.	AM	0.90	D	0.92	E	0.88	D
321. Laguna Canyon & Old Laguna Canyon	AM	0.92	E	0.94	E	0.89	D
Mainline (Directional Segments)							
I-405 Northbound, n/o Jeffrey	AM	1.25	F	1.29	F	1.06	F

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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TABLE 117

PENDING YEAR 2030 OPTION 2 HIGH SCHOOL ALTERNATIVE ARTERIAL ROADWAY PEAK HOUR ANALYSIS SUMMARY

Segment	Segment Limits	Juris	# of Lanes	Peak Hour Capacity	Pending Year 2030 with Option 2 - HS Alternative		
					Refined ADT	Highest Peak Volume	V/C
Bake Pkwy.	b/w Rockfield Bl. and Marine Wy.	Irv	8D	6,400	83,500	4,010 (AM Northbound)	0.63
Irvine Bl.	b/w A St. and Z St.	Irv	6D	4,800	52,500	3,001 (PM Westbound)	0.63
Irvine Bl.	e/o Z St.	Irv	6D	4,800	53,500	3,044 (PM Westbound)	0.63
Trabuco Rd.	b/w SR-133 and O St.	Irv	4D	3,200	35,100	1,674 (PM Eastbound)	0.52
Jeffrey Rd.	b/w Roosevelt and I-5 NB Ramps	Irv	6D	4,800	64,100	3,340 (AM Southbound)	0.70
Trabuco Rd.	e/o Culver Dr.	Irv	4D	3,200	38,500	1,933 (PM Eastbound)	0.60
							A

*Heritage Fields Project 2012 GPAZC Traffic Study
City of Irvine, CA (JN:07151-12.1 Report Tables)*

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Table 18

**ITAM 8.4-10 2030 Pending ICU Comparison
With Approved Project (Baseline) and With Modified Project, Option 2 HS Alternative**

						2011 Approved Project, with Pending Projects				2012 Modified Project, Pending HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
16	Newport Av at Irvine Bl	Tus				0.79	C	0.92	E	0.80	C	0.94	E
34	Red Hill Av at Irvine Bl	Tus/OC	F	Yes		0.79	C	0.90	D	0.76	C	0.85	D
54	Browning Av at Irvine Bl	Tus/OC				1.00	E	0.88	D	1.02	F	0.87	D
91	Tustin Ranch Rd at Irvine Bl	Tus	F	Yes		0.85	D	0.90	D	0.80	C	0.85	D
123	Jamboree Rd at Tustin Ranch Rd	Tus	P			0.76	C	0.67	B	0.75	C	0.66	B
124	Jamboree Rd at Portola Pw	Tus				0.68	B	0.63	B	0.70	B	0.62	B
125	Jamboree Rd at Irvine Bl	Tus	F		Yes	0.82	D	0.76	C	0.83	D	0.75	C
126	Jamboree Rd at Bryan Av	Tus				0.72	C	0.62	B	0.72	C	0.64	B
127	Jamboree Rd at El Camino Real	Tus				0.72	C	0.69	B	0.73	C	0.69	B
128	Jamboree Rd at I-5 NB Ramps	Irv/Tus				0.66	B	0.71	C	0.68	B	0.71	C
129	Jamboree Rd at I-5 SB Ramps	Irv				0.69	B	0.65	B	0.68	B	0.65	B
131	Jamboree Rd SB at Walnut Av	Irv				0.46	A	0.55	A	0.47	A	0.57	A
132	Jamboree Rd NB at Walnut Av	Irv				0.50	A	0.73	C	0.49	A	0.74	C
133	Jamboree Rd at Edinger Av	Tus			Yes	0.51	A	0.67	B	0.51	A	0.67	B
135	Jamboree Rd NB at Warner Av	Irv				0.42	A	0.42	A	0.43	A	0.42	A
136	Jamboree Rd at Barranca Pw	Irv			Yes	0.91	E	0.96	E	0.91	E	0.98	E
157	SR-261 SB Ramps at Portola Pw	Irv				0.42	A	0.50	A	0.44	A	0.50	A
158	SR-261 NB Ramps at Portola Pw	Irv				0.45	A	0.41	A	0.48	A	0.42	A
159	SR-261 SB Ramps at Irvine Bl	Irv				0.61	B	0.53	A	0.59	A	0.53	A
160	SR-261 NB Ramps at Irvine Bl	Irv				0.71	C	0.66	B	0.73	C	0.65	B
218	Culver Dr at Portola Pk	Irv				0.71	C	0.67	B	0.74	C	0.69	B
220	Culver Dr at Irvine Bl	Irv				0.79	C	0.88	D	0.78	C	0.88	D
221	Culver Dr at Bryan Av	Irv				0.89	D	0.73	C	0.89	D	0.74	C
222	Culver Dr at Trabuco Rd	Irv	F			0.77	C	0.77	C	0.80	C	0.79	C
223	Culver Dr at I-5 SB Ramps	Irv	F			0.61	B	0.68	B	0.61	B	0.68	B
224	Culver Dr at Walnut Av	Irv	F			0.82	D	0.86	D	0.82	D	0.87	D
226	Culver Dr at ICD	Irv				0.78	C	0.74	C	0.78	C	0.74	C
227	Culver Dr at Warner Av	Irv				0.81	D	0.64	B	0.82	D	0.63	B
228	Culver Dr at Barranca Pw	Irv	P			0.91	E	0.78	C	0.92	E	0.78	C
229	Culver Dr at Alton Pkwy	Irv				0.84	D	0.88	D	0.85	D	0.88	D
232	Culver Dr at I-405 NB Ramps	Irv				0.83	D	0.74	C	0.86	D	0.74	C
233	Culver Dr at I-405 SB Ramps	Irv				0.61	B	0.66	B	0.63	B	0.67	B
235	Culver Dr at University	Irv	F			0.71	C	0.82	D	0.73	C	0.83	D
249	Yale Av at Irvine Bl	Irv	F			0.75	C	0.88	D	0.76	C	0.89	D
252	Yale Av at Bryan Av	Irv				0.48	A	0.44	A	0.49	A	0.45	A
255	Yale Av at Trabuco Rd	Irv				0.61	B	0.52	A	0.63	B	0.52	A
259	Yale Av at Walnut Av	Irv				0.60	A	0.72	C	0.64	B	0.73	C
261	Yale Av at ICD	Irv				0.71	C	0.69	B	0.69	B	0.68	B
264	W Yale Lp at Barranca Pw	Irv				0.66	B	0.62	B	0.68	B	0.63	B
267	E Yale Lp at Barranca Pw	Irv				0.72	C	0.68	B	0.73	C	0.68	B
268	W Yale Loop at Alton Pw	Irv				0.65	B	0.65	B	0.68	B	0.65	B
271	E Yale Lp at Alton Pw	Irv				0.76	C	0.69	B	0.75	C	0.69	B
282	Jeffrey Rd at Portola Pw	Irv				0.63	B	0.60	A	0.62	B	0.60	A
283	Jeffrey Rd at Irvine Bl	Irv				0.68	B	0.67	B	0.70	B	0.68	B
284	Jeffrey Rd at Bryan Av	Irv				0.70	B	0.64	B	0.70	B	0.65	B
285	Jeffrey Rd at Trabuco Rd	Irv				0.65	B	0.72	C	0.64	B	0.73	C
286	Jeffrey Rd at Roosevelt	Irv				0.86	D	0.85	D	0.89	D	0.85	D
287	Jeffrey Rd at I-5 NB Ramps	Irv				0.69	B	0.80	C	0.70	B	0.81	D
288	Jeffrey Rd at Walnut Av	Irv	F			0.76	C	0.76	C	0.76	C	0.78	C

Table 18 (Cont.)

ITAM 8.4-10 2030 Pending ICU Comparison
With Approved Project (Baseline) and With Modified Project, Option 2 HS Alternative

						2011 Approved Project, with Pending Projects				2012 Modified Project, Pending HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
289	Jeffrey Rd at ICD	Irv	F			0.83	D	0.77	C	0.83	D	0.78	C
290	Jeffrey Rd at Barranca Pw	Irv	P			0.90	D	0.79	C	0.92	E	0.79	C
291	Jeffrey Rd at Alton Pw	Irv	F	Yes		0.93	E	0.79	C	0.95	E	0.79	C
293	Jeffrey Rd at I-405 NB Ramps	Irv	P			0.74	C	0.88	D	0.75	C	0.90	D
294	University Dr at I-405 SB Ramps	Irv				0.63	B	0.70	B	0.64	B	0.70	B
300	Sand Canyon Av at Portola Pw	Irv				0.40	A	0.56	A	0.42	A	0.56	A
301	Sand Canyon Av at Irvine Bl	Irv				0.74	C	0.75	C	0.74	C	0.74	C
302	Sand Canyon Av at Trabuco Pw	Irv	F			0.77	C	0.78	C	0.77	C	0.78	C
303	Sand Canyon Av at I-5 NB Ramps/Marine Wy	Irv	F			0.84	D	0.85	D	0.91	E	0.95	E
305	Sand Canyon Av at I-5 SB Ramps	Irv	F			0.82	D	0.81	D	0.84	D	0.85	D
306	Sand Canyon Av at Oak Canyon	Irv	F			0.78	C	0.92	E	0.77	C	0.93	E
307	Sand Canyon Av at ICD	Irv				0.60	A	0.63	B	0.61	B	0.64	B
309	Sand Canyon Av at Barranca Pw	Irv				0.55	A	0.57	A	0.55	A	0.58	A
310	Sand Canyon Av at Alto	Irv	F			0.66	B	0.72	C	0.67	B	0.72	C
311	Sand Canyon Av at I-405 NB Ramps	Irv	F			0.59	A	0.42	A	0.59	A	0.42	A
312	Sand Canyon Av at I-405 SB Ramps	Irv				0.87	D	0.61	B	0.88	D	0.62	B
313	Laguna Canyon Rd at ICD	Irv				0.36	A	0.42	A	0.37	A	0.42	A
314	Laguna Canyon Rd at Barranca Pw	Irv				0.42	A	0.42	A	0.42	A	0.42	A
315	Laguna Canyon Rd at Alton Pw	Irv				0.56	A	0.60	A	0.58	A	0.59	A
316	SR-133 SB Ramps at Irvine Bl	Irv				0.55	A	0.61	B	0.55	A	0.61	B
317	SR-133 NB Ramps at Irvine Bl	Irv				0.75	C	0.72	C	0.70	B	0.77	C
318	Banting at Barranca Pkwy	Irv				0.66	B	0.53	A	0.66	B	0.52	A
319	Banting at Alton Pw	Irv				0.58	A	0.55	A	0.59	A	0.57	A
321	Laguna Canyon Rd at Old Laguna Canyon Rd	Irv	F			0.87	D	0.78	C	0.88	D	0.78	C
322	Laguna Canyon Rd at SR-73 NB Ramps	LB			Yes	0.99	E	0.65	B	0.98	E	0.65	B
323	Laguna Canyon Rd at SR-73 SB Ramps	LB			Yes	0.37	A	0.41	A	0.37	A	0.41	A
324	Portola Pw at SR-241 NB Ramps	Irv				0.27	A	0.19	A	0.27	A	0.19	A
325	Portola Pw at SR-241 SB Ramps	Irv				0.28	A	0.31	A	0.26	A	0.31	A
327	Barranca Pw at Technology	Irv	P			0.58	A	0.82	D	0.58	A	0.81	D
328	Barranca Pw at I-5 HOV Ramp	Irv			Yes	0.66	B	0.44	A	0.66	B	0.45	A
329	Barranca Pw at ICD	Irv			Yes	0.69	B	0.69	B	0.69	B	0.69	B
330	Barranca Pw at Pacifica	Irv			Yes	0.61	B	0.77	C	0.61	B	0.77	C
333	Pacifica at Gateway	Irv			Yes	0.77	C	0.77	C	0.77	C	0.79	C
335	Alton Pw at Portola Pw	LF				0.49	A	0.36	A	0.49	A	0.36	A
336	Alton Pw at SR-241 Ramps	LF				0.69	B	0.58	A	0.66	B	0.58	A
338	Alton Pw at Irvine Bl	Irv	F		Yes	1.03	F	0.98	E	1.04	F	0.94	E
339	Alton Pw at Toledo Wy	Irv				0.70	B	0.61	B	0.80	C	0.65	B
340	Alton Pw at Jeronimo Rd	Irv				0.70	B	0.56	A	0.71	C	0.55	A
341	Alton Pw at Barranca Pw	Irv				0.59	A	0.77	C	0.60	A	0.74	C
343	Alton Pw at Ada	Irv				0.49	A	0.73	C	0.52	A	0.74	C
344	Alton Pw at Technology	Irv	P			0.57	A	0.85	D	0.59	A	0.86	D
345	Alton Pw at I-5 NB Ramps	Irv	F		Yes	0.89	D	0.53	A	0.87	D	0.53	A
346	Alton Pw at Enterprise	Irv			Yes	0.71	C	0.80	C	0.70	B	0.81	D
348	Alton Pw at ICD	Irv	P		Yes	0.77	C	0.83	D	0.76	C	0.83	D
350	Alton Pw at Pacifica	Irv			Yes	0.63	B	0.58	A	0.63	B	0.58	A
351	Fortune Dr /I-5 SB Ramps	Irv			Yes	0.57	A	0.85	D	0.57	A	0.86	D
357	Enterprise Dr at Fortune Dr	Irv			Yes	0.51	A	0.53	A	0.50	A	0.54	A
358	ICD at Enterprise Dr	Irv	P		Yes	0.68	B	0.56	A	0.69	B	0.56	A
359	ICD at I-405 SB Ramps	Irv	P		Yes	0.61	B	0.58	A	0.62	B	0.59	A

Table 18 (Cont.)

ITAM 8.4-10 2030 Pending ICU Comparison
With Approved Project (Baseline) and With Modified Project, Option 2 HS Alternative

						2011 Approved Project, with Pending Projects				2012 Modified Project, Pending HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
361	Bake Pw at Portola Pw	LF				0.63	B	0.89	D	0.60	A	0.88	D
362	Bake Pw at Irvine Bl	Irv	F		Yes	0.83	D	0.88	D	0.83	D	0.90	D
363	Bake Pw at Toledo Wy	Irv				0.83	D	0.67	B	0.82	D	0.67	B
364	Bake Pw at Jeronimo Rd	Irv	F			0.87	D	0.70	B	0.85	D	0.69	B
365	Bake Pw at Muirlands Bl	Irv				0.74	C	0.93	E	0.71	C	0.90	D
366	Bake Pw at Rockfield Bl	Irv				0.79	C	0.98	E	0.76	C	1.02	F
367	Bake Pw at I-5 NB Ramps	Irv			Yes	0.83	D	0.61	B	0.80	C	0.61	B
368	Bake Pw at I-5 SB Ramps	Irv	F		Yes	0.81	D	0.90	D	0.81	D	0.90	D
371	Bake Pw at Research Dr	Irv				0.53	A	0.83	D	0.54	A	0.83	D
372	Bake Pw at ICD	Irv				0.57	A	0.57	A	0.56	A	0.56	A
373	Lake Forest Dr at SR-241 NB Ramp	LF				0.34	A	0.45	A	0.34	A	0.42	A
374	Lake Forest Dr at Portola Pw	LF				0.63	B	0.90	D	0.62	B	0.88	D
375	Lake Forest Dr at SR-241 SB Ramp	LF				0.56	A	0.53	A	0.54	A	0.50	A
376	Lake Forest Dr at Trabuco Rd	LF				0.83	D	0.90	D	0.83	D	0.90	D
377	Lake Forest Dr at Toledo Wy	LF				0.61	B	0.58	A	0.64	B	0.60	A
378	Lake Forest Dr at Jeronimo Rd	LF	P			0.74	C	0.92	E	0.78	C	0.91	E
379	Lake Forest Dr at Muirlands Bl	LF	F			0.74	C	0.85	D	0.74	C	0.84	D
380	Lake Forest Dr at Rockfield Bl	LF	P			0.82	D	0.93	E	0.83	D	0.93	E
381	Lake Forest Dr at I-5 NB Ramps	LF				0.71	C	0.75	C	0.69	B	0.76	C
383	Lake Forest Dr at Avenida Carlota/I-5 SB	Irv	F		Yes	0.66	B	0.81	D	0.64	B	0.80	C
385	Lake Forest Dr at ICD	Irv			Yes	0.54	A	0.76	C	0.53	A	0.75	C
386	Ridge Route Dr at Muirlands Bl	LF				0.58	A	0.69	B	0.57	A	0.69	B
387	Ridge Route Dr at Rockfield Bl	LF	P			0.50	A	0.64	B	0.50	A	0.64	B
388	Ridge Route Dr at Avenida Carlota	LH				0.40	A	0.73	C	0.39	A	0.73	C
389	Ridge Route at Moulton Pw	LH/LW				0.58	A	0.72	C	0.57	A	0.71	C
390	Paseo de Valencia at Ave	LH/LW	P			0.80	C	0.95	E	0.80	C	0.96	E
391	Santa Maria Av at Moulton Pw	LH/LW				0.67	B	0.81	D	0.66	B	0.79	C
392	El Toro Rd at Muirlands Bl	LF				0.78	C	0.87	D	0.77	C	0.87	D
393	El Toro Rd at Rockfield Bl	LF				0.61	B	0.75	C	0.60	A	0.74	C
394	El Toro Rd at I-5 NB Ramps	LF			Yes	0.82	D	0.85	D	0.82	D	0.84	D
396	El Toro Rd at Avenida Carlota	LH	P		Yes	0.74	C	0.96	E	0.74	C	0.95	E
397	El Toro Rd at Paseo de Valencia	LH/LW				0.68	B	0.84	D	0.68	B	0.84	D
398	El Toro Rd at Moulton Pw	LW			Yes	0.86	D	0.95	E	0.87	D	0.95	E
399	El Toro Rd at Aliso Creek Rd	AV				0.57	A	0.70	B	0.57	A	0.69	B
400	El Toro Rd at SR-73 NB Ramps	LB			Yes	0.65	B	0.61	B	0.66	B	0.62	B
401	El Toro Rd at SR-73 SB Ramps	LB			Yes	0.43	A	0.64	B	0.43	A	0.64	B
402	I-5 NB Ramps at Trabuco Rd	Irv				0.64	B	0.65	B	0.60	A	0.67	B
405	Laguna Canyon Rd at Quail Hill Pw	Irv				0.44	A	0.37	A	0.43	A	0.37	A
406	Laguna Canyon Rd at Lake Forest Dr	Irv	F			0.81	D	0.74	C	0.81	D	0.75	C
409	Bake Pw at Commercentre Dr	LF				0.66	B	0.74	C	0.67	B	0.74	C
412	Ridge Route Dr at Trabuco Rd	LF				0.58	A	0.70	B	0.56	A	0.72	C
413	Ridge Route Dr at Toledo Wy	LF				0.42	A	0.40	A	0.43	A	0.39	A
414	Ridge Route Dr at Jeronimo Rd	LF				0.49	A	0.66	B	0.50	A	0.65	B
415	Glenn Ranch Rd at Portola Pw	LF				0.64	B	0.67	B	0.65	B	0.66	B
416	Portola Pw East at SR-241 Ramps	LF				0.51	A	0.68	B	0.51	A	0.68	B
417	El Toro Rd at Portola Pw	LF				0.82	D	0.99	E	0.82	D	1.01	F
418	El Toro Rd at Trabuco Rd	LF			Yes	0.79	C	0.78	C	0.77	C	0.77	C
419	El Toro Rd at Toledo Wy	LF				0.57	A	0.63	B	0.56	A	0.62	B
420	El Toro Rd at Jeronimo Rd	LF	P			0.77	C	0.79	C	0.76	C	0.78	C

Table 18 (Cont.)

ITAM 8.4-10 2030 Pending ICU Comparison
With Approved Project (Baseline) and With Modified Project, Option 2 HS Alternative

						2011 Approved Project, with Pending Projects				2012 Modified Project, Pending HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
421	Los Alisos Bl at Trabuco Rd	MV				0.78	C	0.71	C	0.76	C	0.71	C
422	Los Alisos Bl at Jeronimo Rd	LF/MV	P			0.89	D	0.89	D	0.88	D	0.89	D
423	Muirlands Bl at Los Alisos Bl	LF/MV	P			0.99	E	1.06	F	1.00	E	1.04	F
424	Los Alisos Bl at Rockfield Bl	LF	P			0.93	E	0.92	E	0.91	E	0.92	E
425	Los Alisos Bl at Avenida Carlota	LH				0.61	B	0.71	C	0.62	B	0.70	B
426	Los Alisos Bl at Paseo de Valencia	LH/LW				0.59	A	0.73	C	0.58	A	0.73	C
427	Moulton Pw at Glenwood/Indian Creek	AV/LH				0.72	C	0.71	C	0.71	C	0.70	B
428	Laguna Hills Dr at Paseo de Valencia	LH/LW				0.74	C	0.77	C	0.73	C	0.77	C
429	Moulton Pw at Laguna Hills Dr	AV/LH				0.82	D	0.82	D	0.82	D	0.81	D
430	Trabuco Rd at Alicia Pw	MV				0.74	C	0.73	C	0.73	C	0.74	C
431	Jeronimo Rd at Alicia Pw	MV				0.78	C	0.77	C	0.78	C	0.77	C
432	Alicia Pw at Muirlands Bl	MV	P			0.73	C	0.88	D	0.73	C	0.88	D
433	I-5 NB Ramps at Alicia Pw	MV				0.44	A	0.70	B	0.44	A	0.70	B
434	I-5 SB Ramps at Alicia Pw	LH				0.69	B	0.76	C	0.69	B	0.76	C
435	Alicia Pw at Paseo de Valencia	LH				0.68	B	0.76	C	0.67	B	0.76	C
436	Moulton Pw at Alicia Pw	LH				0.75	C	0.79	C	0.74	C	0.78	C
437	Scientific Wy at ICD	Irv				0.34	A	0.42	A	0.34	A	0.41	A
441	Loop Rd at Jamboree Rd	Tus				0.27	A	0.19	A	0.27	A	0.19	A
444	Sand Canyon Av at Burt Rd	Irv				0.80	C	0.80	C	0.83	D	0.82	D
452	Jamboree Rd at Santiago Canyon Rd	Ora				0.52	A	0.53	A	0.57	A	0.57	A
463	Jamboree Rd at Chapman Av	Ora				0.70	B	0.72	C	0.73	C	0.74	C
464	SR-241/SR-261 SB Ramps at Chapman Av	OC				0.64	B	0.61	B	0.62	B	0.61	B
465	SR-241/SR-261 NB Ramps at Chapman Av	OC				0.60	A	0.67	B	0.63	B	0.66	B
466	SR-241 NB Ramp at Santiago Canyon Rd	OC				0.56	A	0.61	B	0.61	B	0.62	B
468	Jamboree Rd at Canyon View	Ora				0.61	B	0.38	A	0.57	A	0.39	A
477	El Camino Real N at Bryan Av	Irv				0.44	A	0.48	A	0.44	A	0.49	A
481	Laguna Canyon Rd at Technology	Irv				0.45	A	0.42	A	0.45	A	0.42	A
482	Visions (formerly Road A) at Trabuco Rd	Irv				0.40	A	0.33	A	0.42	A	0.36	A
483	Road C at Trabuco Rd	Irv				0.37	A	0.35	A	0.39	A	0.36	A
484	Sand Canyon at Roosevelt	Irv				0.65	B	0.53	A	0.63	B	0.51	A
485	Sand Canyon at Nighthmist	Irv				0.74	C	0.60	A	0.72	C	0.59	A
486	SR-133 SB Ramps at Trabuco Rd	Irv				0.55	A	0.57	A	0.58	A	0.58	A
487	SR-133 NB Ramps at Trabuco Rd	Irv				0.52	A	0.65	B	0.56	A	0.67	B
514	Alton Pw at Rancho Pw	LF				0.69	B	0.77	C	0.68	B	0.75	C
515	Bake Pw N at Rancho Pw North	LF				0.66	B	0.86	D	0.65	B	0.85	D
516	Lake Forest Dr at Rancho Pw North	LF				0.92	E	1.17	F	0.91	E	1.17	F
517	Portola Pw at Rancho Pw	LF				0.62	B	0.70	B	0.62	B	0.70	B
518	Alton Pw at Commercentre	LF				0.63	B	0.76	C	0.61	B	0.75	C
555	Bake Pw at Rancho Pkw	LF				0.70	B	0.74	C	0.69	B	0.74	C
556	Ridge Valley at Portola Pw	Irv				0.52	A	0.53	A	0.53	A	0.52	A
557	O St at C St	Irv				0.39	A	0.36	A	0.38	A	0.35	A
558	O St at Irvine Bl	Irv				0.65	B	0.75	C	0.64	B	0.76	C
559	O St at Trabuco Rd	Irv				0.73	C	0.69	B	0.82	D	0.67	B
560	O St at Marine Wy	Irv				0.45	A	0.61	B	0.52	A	0.63	B
562	D St. at Marine Wy	Irv				0.40	A	0.46	A	0.49	A	0.44	A
563	B St. at Irvine Bl	Irv				0.69	B	0.71	C	0.65	B	0.71	C
564	C St. at Marine Wy	Irv				0.47	A	0.59	A	0.64	B	0.60	A
566	Marine Wy at Barranca Pw	Irv				0.67	B	0.63	B	0.64	B	0.61	B
567	Marine Wy at Alton Pw	Irv				0.63	B	0.63	B	0.66	B	0.60	A

Table 18 (Cont.)

**ITAM 8.4-10 2030 Pending ICU Comparison
With Approved Project (Baseline) and With Modified Project, Option 2 HS Alternative**

						2011 Approved Project, with Pending Projects				2012 Modified Project, Pending HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
568	Marine Wy at Rockfield Bl	Irv				0.69	B	0.54	A	0.43	A	0.39	A
569	Bake Pw at Marine Wy	Irv				0.68	B	0.65	B	0.78	C	0.71	C
571	Portola Springs at Porto	Irv				0.56	A	0.48	A	0.56	A	0.48	A
572	Modjeska at Irvine Bl	Irv				0.67	B	0.74	C	0.66	B	0.74	C
603	O St at LN St	Irv				0.40	A	0.33	A	0.39	A	0.31	A
605	O St at LQ St	Irv				0.56	A	0.54	A	0.56	A	0.48	A
608	O St at LV St	Irv				0.35	A	0.32	A	0.37	A	0.35	A
626	LY St at LQ St	Irv				0.39	A	0.38	A	0.49	A	0.45	A
627	LY St at Irvine Bl	Irv				0.54	A	0.59	A	0.54	A	0.59	A
631	LY St at Trabuco Rd	Irv				0.11	A	0.14	A	0.17	A	0.20	A
633	Sterling at Rockfield Bl	Irv				0.28	A	0.36	A	Not Applicable			
637	Sterling at Muirlands Bl	Irv				0.34	A	0.42	A	0.35	A	0.41	A
640	Thomas at Muirlands Bl.	Irv				0.26	A	0.36	A	0.26	A	0.37	A
782	A St at LQ St	Irv				0.31	A	0.29	A	0.34	A	0.34	A
787	Z St at LQ St	Irv				0.31	A	0.28	A	0.29	A	0.27	A
790	Z St at Irvine Bl	Irv				0.72	C	0.70	B	0.69	B	0.71	C
798	B St. at LQ St	Irv				0.49	A	0.38	A	0.37	A	0.38	A
799	"B" St. at Marine Wy.	Irv				0.49	A	0.56	A	0.75	C	0.66	B
800	LQ St at Irvine Bl	Irv				0.81	D	0.74	C	0.77	C	0.72	C
820	Fairbanks at Irvine Bl.	Irv				0.72	C	0.78	C	0.73	C	0.81	D
821	Alton Pw. at Fairbanks	Irv				0.54	A	0.56	A	0.68	B	0.71	C
822	"F" St. at Irvine Bl.	Irv				Not Applicable				0.71	C	0.72	C
831	"G" St. at Marine Wy.	Irv				Not Applicable				0.54	A	0.59	A
832	Fairbanks at Astor	Irv				0.14	A	0.15	A	0.53	A	0.57	A

Bold = Deficient Intersection

1. Fully Funded (F), Partially Funded (P)

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 19

**Year 2030 with Pending Projects Intersection ICU LOS with 2012 Modified Project
Option 2, High School Alternative Impact Locations**

Location	Peak Hour	2011 Approved Project, with Pending Projects		With 2012 Modified Project Option 2 - HS Alternative	
		ICU	LOS	ICU	LOS
Intersection					
16. Newport Ave. & Irvine Blvd.	PM	0.92	E	0.94	E
54. Browning Ave. & Irvine Blvd.	AM	1.00	E	1.02	F
290. Jeffrey Rd. & Barranca	AM	0.90	D	0.92	E
291. Jeffrey Rd. & Alton Pkwy.	AM	0.93	E	0.95	E
303. Sand Canyon Ave. & I-5 NB Ramps	PM	0.85	D	0.95	E
366. Bake Pkwy. & Rockfield Blvd.	PM	0.98	E	1.02	F
417. El Toro Rd. & Portola Pw.	PM	0.99	E	1.01	F
Ramp					
I-5 NB Off-Ramp to Jamboree Rd.	AM	1.04	F	1.09	F
Mainline (Directional Segments)					
I-5 Northbound, n/o Culver	AM	1.32	F	1.36	F

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 20

**Year 2030 Pending Freeway/Tollway Ramp LOS Summary
With Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project, with Pending Projects			Modified Project, with Pending Projects - HS Alt.					
				AM Peak Hour Volume	V/C ²	LOS	PM Peak Hour Volume	V/C ²	LOS	AM Peak Hour Volume	V/C ²	LOS
I-5 at Jamboree	SB Direct On	1	1,500	397	0.26	A	1,090	0.73	C	430	0.29	A
	SB Loop On	1	1,080	519	0.48	A	450	0.42	A	522	0.48	A
	NB Direct On	1	1,080	470	0.44	A	480	0.44	A	470	0.44	A
	NB Loop On	1	1,080	670	0.62	B	700	0.65	B	670	0.62	B
	SB Off	1	1,500	1,429	0.95	E	1,438	0.96	E	1,429	0.95	E
	NB Off	1	1,500	1,562	1.04	F	1,270	0.85	D	1,633	1.09	F
	SB Direct On	1	900	240	0.27	A	300	0.33	A	240	0.27	A
	SB Loop On	1	900	330	0.37	A	240	0.27	A	340	0.38	A
I-5 at Culver	NB Direct On	1	900	726	0.81	D	179	0.20	A	725	0.81	D
	NB Loop On	1	1,500	1,100	0.73	C	590	0.39	A	1,113	0.74	C
	SB Off	2	2,250	959	0.43	A	2,163	0.96	E	941	0.42	A
	NB Off	1	1,500	332	0.22	A	444	0.30	A	324	0.22	A
	SB On	1	1,080	1,229	1.14	F	780	0.72	C	1,196	1.11	F
	NB Direct On	1	1,080	700	0.65	B	220	0.20	A	740	0.69	B
	NB Loop On	1	1,500	250	0.17	A	270	0.18	A	250	0.17	A
	SB Off	1	1,500	609	0.41	A	980	0.65	B	610	0.41	A
I-5 at Jeffrey	NB Off	2	2,250	938	0.42	A	1,457	0.65	B	937	0.42	A
	SB On	1	1,500	691	0.46	A	740	0.49	A	699	0.47	A
	NB On	1	1,500	761	0.51	A	1,490	0.99	E	930	0.62	B
	SB Off	1	1,500	1,794	1.20	F	849	0.57	A	1,734	1.16	F
	NB Off	2	2,250	701	0.31	A	711	0.32	A	690	0.31	A
	NB On	1	1,500	20	0.01	A	210	0.14	A	20	0.01	A
	SB Off	1	1,500	289	0.19	A	101	0.07	A	278	0.19	A
	SB On	1	1,500	380	0.25	A	670	0.45	A	440	0.29	A
I-5 at Sand Canyon	NB Direct On	2	1,800	260	0.14	A	1,170	0.65	B	290	0.16	A
	NB Loop On	1	1,500	576	0.38	A	151	0.10	A	564	0.38	A
	SB Off	2	2,250	2,221	0.99	E	1,050	0.47	A	2,211	0.98	E
	NB Off	2	2,250	1,160	0.52	A	320	0.14	A	1,155	0.51	A
	SB Direct On	1	1,500	113	0.08	A	135	0.09	A	121	0.08	A
	SB Loop On	1	1,080	352	0.33	A	848	0.79	C	380	0.35	A
	NB Direct On	2	3,400	1,894	0.56	A	1,644	0.48	A	1,919	0.56	A
	NB Loop On	1	1,500	320	0.21	A	1,000	0.67	B	320	0.21	A
I-5 at Bake	SB Off	2	3,000	2,994	1.00	E	2,438	0.81	D	3,003	1.00	E
	NB Off	2	3,000	1,424	0.47	A	598	0.20	A	1,291	0.43	A
	SB Direct On	1	1,500	329	0.22	A	868	0.58	A	330	0.22	A
	SB Loop On	1	1,080	405	0.38	A	654	0.61	B	403	0.37	A
	NB On	2	1,800	1,314	0.87	D	1,050	0.78	C	1,376	0.76	C
	SB Off	2	3,000	1,759	0.59	A	2,326	0.78	C	1,761	0.59	A
	NB Off	1	1,500	1,502	1.00	E	729	0.49	A	1,503	1.00	E
										729	0.49	A

Table 20 (Cont.)

**Year 2030 Pending Freeway/Tollway Ramp LOS Summary
With Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project, with Pending Projects			Modified Project, with Pending Projects - HS Alt.					
				AM Peak Hour Volume	V/C ²	LOS	PM Peak Hour Volume	V/C ²	LOS	AM Peak Hour Volume	V/C ²	LOS
I-5 at El Toro	SB Direct On	1	1,080	140	0.13	A	140	0.13	A	165	0.15	A
	SB Loop On	1	1,500	449	0.30	A	519	0.35	A	438	0.29	A
	NB Direct On	1	1,500	1,482	0.99	E	1,102	0.73	C	1,501	1.00	E
	NB Loop On	1	1,500	1,307	0.87	D	940	0.63	B	1,236	0.82	D
	SB Off	1	2,250	2,794	1.24	F	2,800	1.24	F	2,815	1.25	F
	NB Off	1	1,500	1,272	0.85	D	1,308	0.87	D	1,324	0.88	D
	SB Direct On	1	1,080	150	0.14	A	202	0.19	A	151	0.14	A
	SB Loop On	1	1,500	800	0.53	A	749	0.50	A	804	0.54	A
	NB Direct On	1	1,500	1,336	0.89	D	890	0.59	A	1,306	0.87	D
	NB Loop On	1	1,500	1,397	0.93	E	880	0.59	A	1,427	0.95	E
I-5 at Alicia	SB Off	1	3,000	2,097	0.70	B	2,200	0.73	C	2,097	0.70	B
	NB Off	1	1,500	311	0.21	A	1,071	0.71	C	311	0.21	A
	SB Direct On	1	1,500	240	0.16	A	570	0.38	A	220	0.15	A
	SB Loop On	1	900	250	0.28	A	340	0.38	A	250	0.28	A
	NB Direct On	1	1,500	930	0.62	B	680	0.45	A	930	0.62	B
	NB Loop On	1	1,500	670	0.45	A	480	0.32	A	690	0.46	A
	SB Off	2	3,000	942	0.31	A	1,492	0.50	A	952	0.32	A
	NB Off	1	1,500	1,381	0.92	E	1,289	0.86	D	1,433	0.96	E
	SB Direct On	1	1,030	669	0.69	B	1,202	0.80	C	1,050	0.70	B
	SB Loop On	1	900	370	0.41	A	290	0.32	A	370	0.41	A
I-405 at Culver	NB Direct On	1	1,500	1,342	0.89	D	650	0.43	A	1,352	0.90	D
	SB Off	1	900	371	0.41	A	110	0.12	A	341	0.38	A
	NB Loop On	1	1,500	654	0.44	A	812	0.54	A	654	0.44	A
	NB Off	1	2,250	1,247	0.55	A	1,873	0.83	D	1,227	0.55	A
	SB On	1	1,500	360	0.24	A	525	0.35	A	360	0.24	A
	NB Direct On	1	1,500	1,223	0.82	D	1,350	0.90	D	1,270	0.85	D
	NB Loop On	1	1,500	621	0.41	A	360	0.24	A	630	0.42	A
	SB Off	1	1,500	1,847	1.23	F	1,024	0.68	B	1,822	1.21	F
	NB Off	1	1,500	627	0.42	A	497	0.33	A	627	0.42	A
	SB Direct On	1	900	60	0.07	A	90	0.10	A	60	0.07	A
I-405 at Sand Canyon	SB Loop On	1	900	250	0.28	A	370	0.41	A	250	0.28	A
	NB Direct On	1	1,500	281	0.19	A	582	0.39	A	298	0.20	A
	NB Loop On	1	1,500	247	0.16	A	1,273	0.85	D	278	0.19	A
	SB Off	1	2,250	2,117	0.94	E	1,482	0.66	B	2,057	0.91	E
	NB Off	1	3,000	1,261	0.42	A	501	0.17	A	1,259	0.42	A
	SR-133 at SR-241											
	NB SR-133 to SB SR-241	2	4,000	820	0.21	A	2,443	0.61	B	777	0.19	A
I-405 at Irvine Center	NB SR-241 to SB SR-133	2	4,000	3,077	0.77	C	1,363	0.34	A	3,118	0.78	C
	NB SR-133 to NB SR-241	2	4,000	1,916	0.48	A	2,915	0.73	C	2,089	0.52	A
	SB SR-241 to SB SR-133	2	4,000	3,399	0.85	D	1,974	0.49	A	3,350	0.84	D
	SB Off	1	3,000	1,261	0.42	A	501	0.17	A	1,259	0.42	A
SR-133 at SR-241	SR-133 at SR-241											
	NB SR-133 to SB SR-241	2	4,000	820	0.21	A	2,443	0.61	B	777	0.19	A
I-405 at Irvine Center	NB SR-241 to SB SR-133	2	4,000	3,077	0.77	C	1,363	0.34	A	3,118	0.78	C
	NB SR-133 to NB SR-241	2	4,000	1,916	0.48	A	2,915	0.73	C	2,871	0.72	C
I-405 at Sand Canyon	SB SR-241 to SB SR-133	2	4,000	3,399	0.85	D	1,974	0.49	A	3,039	0.51	A

Table 20 (Cont.)

**Year 2030 Pending Freeway/Tollway Ramp LOS Summary
With Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project, with Pending Projects			Modified Project, with Pending Projects - HS Alt.						
				AM Peak Hour Volume	V/C ²	LOS	PM Peak Hour Volume	V/C ²	LOS	AM Peak Hour Volume	V/C ²	LOS	
SR-133 at Irvine	SB On	1	1,500	292	0.19	A	280	0.19	A	303	0.20	A	
	NB Direct On	1	1,500	190	0.13	A	270	0.18	A	300	0.20	A	
	NB Loop On	1	1,500	140	0.09	A	200	0.13	A	130	0.09	A	
	SB Off	2	2,250	439	0.20	A	299	0.13	A	440	0.20	A	
	NB Off	1	1,500	181	0.12	A	469	0.31	A	161	0.11	A	
	SB On	1	1,500	742	0.49	A	680	0.45	A	792	0.53	A	
SR-133 at Trabuco	NB On	1	1,500	170	0.11	A	490	0.33	A	170	0.11	A	
	SB Off	1	1,500	620	0.41	A	380	0.25	A	611	0.41	A	
	NB Off	1	1,500	827	0.55	A	943	0.63	B	840	0.56	A	
	SR-133 at I-5									970	0.65	B	
SB I-5 to NB SR-133	NB I-5 to NB SR-133	1	1	2,000	1,196	0.60	A	1,547	0.77	C	1,212	0.61	B
	SB SR-133 to SB I-5	1	1	2,000	1,684	0.84	D	1,230	0.62	B	1,700	0.85	D
	SB SR-133 to NB I-5	1	1	2,000	1,452	0.73	C	706	0.35	A	1,489	0.74	C
	SB I-5 to NB SR-133	1	1	2,000	784	0.39	A	1,459	0.73	C	753	0.38	A
	SB I-5 to SB SR-133	2	4,000	2,036	0.51	A	1,735	0.43	A	2,059	0.51	A	
	NB SR-133 to NB I-5	2	4,000	2,223	0.56	A	2,106	0.53	A	2,221	0.56	A	
SR-133 at Barranca	SB Loop On	1	1,080	160	0.15	A	1,191	1.10	F	160	0.15	A	
	NB Direct On	1	1,080	259	0.24	A	631	0.58	A	250	0.23	A	
	NB Loop On	1	1,080	501	0.46	A	1,509	1.40	F	520	0.48	A	
	SB Off	2	3,000	2,080	0.69	B	590	0.20	A	2,080	0.69	B	
	NB Off	2	2,250	1,539	0.68	B	530	0.24	A	1,520	0.68	B	
	SR-133 at I-405									562	0.25	A	
SB SR-133 to SB I-405	NB SR-133 to SB I-405	1	1	2,000	1,073	0.54	A	947	0.47	A	1,024	0.51	A
	SB SR-133 to NB I-405	1	2,000	59	0.03	A	76	0.04	A	55	0.03	A	
	SB SR-133 to NB I-405	2	4,000	793	0.20	A	598	0.15	A	878	0.22	A	
	NB SR-133 to NB I-405	2	4,000	1,255	0.31	A	930	0.23	A	1,275	0.32	A	
	SB I-405 to NB SR-133	1	2,000	1,694	0.85	D	1,595	0.80	C	1,663	0.83	D	
	SB I-405 to SB SR-133	1	2,000	560	0.28	A	621	0.31	A	555	0.28	A	
NB I-405 to SB SR-133	NB I-405 to SB SR-133	1	2,000	315	0.16	A	369	0.18	A	314	0.16	A	
	SB On	2	1,800	962	0.53	A	311	0.17	A	974	0.54	A	
	NB On	1	1,500	479	0.32	A	420	0.28	A	468	0.31	A	
	SB Off	1	1,500	826	0.55	A	491	0.33	A	677	0.45	A	
	NB Off	1	1,500	732	0.49	A	984	0.66	B	880	0.59	A	
	SB On	1	1,500	359	0.24	A	410	0.27	A	339	0.23	A	
SR-241 at Chapman / Santiago Cyn	NB On	1	1,500	20	0.01	A	30	0.02	A	20	0.01	A	
	SB Off	1	1,500	30	0.02	A	61	0.04	A	30	0.02	A	
	NB Off	1	1,500	664	0.44	A	385	0.26	A	664	0.44	A	
	SR-241 at Portola (West)									375	0.25	A	

Table 20 (Cont.)

**Year 2030 Pending Freeway/Tollway Ramp LOS Summary
With Modified Project - Option 2 HS Alternative**

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project, with Pending Projects			Modified Project, with Pending Projects - HS Alt.					
				AM Peak Hour Volume	V/C ²	LOS	PM Peak Hour Volume	V/C ²	LOS	AM Peak Hour Volume	V/C ²	LOS
SR-241 at Alton	SB On	1	1,500	430	0.15	A	1,151	0.53	A	449	0.30	A
	NB On	1	1,500	431	0.35	A	620	0.21	A	457	0.30	A
	SB Off	1	1,500	731	0.19	A	449	0.24	A	677	0.45	A
	NB Off	2	2,250	1,087	0.68	B	630	0.21	A	1,021	0.45	A
SR-241 at Lake Forest	NB On	2	2,250	215	0.10	A	863	0.28	A	213	0.09	A
	SB Off	1	1,500	818	0.52	A	426	0.22	A	793	0.53	A
	SB On	1	1,500	329	0.22	A	1,432	0.95	E	334	0.22	A
	NB On	2	2,250	817	0.36	A	431	0.19	A	816	0.36	A
SR-241 at Portola (East)	SB Off	1	1,500	531	0.35	A	615	0.41	A	519	0.35	A
	NB Off	2	2,250	2,185	0.97	E	575	0.26	A	2,175	0.97	E
	SB On	1	1,500	1,010	0.67	B	300	0.20	A	1,010	0.67	B
	NB Off	1	1,500	100	0.07	A	787	0.52	A	110	0.07	A
SR-261 at Chapman	SB On	1	1,500	160	0.11	A	100	0.07	A	160	0.11	A
	NB On	1	1,500	480	0.32	A	250	0.17	A	490	0.33	A
	SB Off	1	1,500	120	0.08	A	292	0.19	A	99	0.07	A
	NB Off	1	1,500	100	0.07	A	100	0.07	A	100	0.07	A
SR-261 at Portola	SB On	1	1,500	860	0.57	A	321	0.21	A	870	0.58	A
	NB On	1	1,500	270	0.18	A	270	0.18	A	270	0.18	A
	SB Off	1	1,500	150	0.10	A	120	0.08	A	130	0.09	A
	NB Off	1	1,500	233	0.16	A	233	0.16	A	224	0.15	A

¹ NB = Northbound; SB = Southbound.² V/C = Volume/Capacity Ratio.**BOLD** = Unsatisfactory level of service.

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 21

ITAM 8.4-10 2030 Pending Peak Hour Volume / Capacity Comparison
2012 Modified Project - Option 2 HS Alternative

Location	Direction	Lanes	Capacity	2011 Approved Project, with Pending Projects						Proposed Project, with Pending Projects - HS Alternative						
				AM Peak			PM Peak			AM Peak			PM Peak			
				Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	
n/o Newport	NB	5+1H	11,600	15,817	1.36	F	12,366	1.07	F	16,074	1.39	F	12,368	1.07	F	
	SB	5+1H	11,600	9,974	0.86	D	10,685	0.92	E	9,921	0.86	D	10,825	0.93	E	
n/o Red Hill	NB	5+1H	11,600	15,092	1.30	F	11,765	1.01	F	15,351	1.32	F	11,734	1.01	F	
	SB	5+1H	11,600	11,997	1.03	F	12,793	1.10	F	11,860	1.02	F	12,987	1.12	F	
n/o Justin Ranch	NB	5+1H	11,600	15,746	1.36	F	12,333	1.06	F	16,045	1.38	F	12,320	1.06	F	
	SB	5+1H	11,600	12,661	1.09	F	13,410	1.16	F	12,528	1.08	F	13,634	1.18	F	
n/o Jambooree	NB	5+1H	11,600	15,258	1.32	F	12,006	1.04	F	15,558	1.34	F	12,003	1.03	F	
	SB	5+1H	11,600	12,333	1.06	F	12,926	1.11	F	12,197	1.05	F	13,149	1.13	F	
n/o Culver	NB	5+1H	11,600	15,365	1.32	F	11,878	1.02	F	15,740	1.36	F	11,903	1.03	F	
	SB	5+1H	11,600	11,897	1.03	F	12,854	1.11	F	11,820	1.02	F	13,110	1.13	F	
n/o Jeffrey	NB	5+1H	11,600	13,425	1.16	F	11,068	0.95	E	13,782	1.19	F	11,070	0.95	E	
	SB	5+1H	11,600	11,494	0.99	E	11,503	0.99	E	11,443	0.99	E	11,717	1.01	F	
n/o Sand Cyn	NB	5+1H	11,600	13,327	1.15	F	11,250	0.97	E	13,643	1.18	F	11,259	0.97	E	
	SB	5+1H	11,600	12,080	1.04	F	11,810	1.02	F	11,986	1.03	F	12,016	1.04	F	
I-5	n/o Altion	NB	4+1H	9,600	10,701	1.11	F	8,814	0.92	E	10,823	1.13	F	8,789	0.92	E
	SB	4+1H	9,600	9,332	0.97	E	9,576	1.00	E	9,342	0.97	E	9,638	1.00	E	
n/o I-405	NB	4+1H	9,600	11,198	1.17	F	7,808	0.81	D	11,289	1.18	F	7,813	0.81	D	
	SB	4+1H	9,600	7,746	0.81	D	9,895	1.03	F	7,756	0.81	D	9,924	1.03	F	
n/o Bake	NB	9+2H	21,500	22,459	1.04	F	14,480	0.67	B	22,656	1.05	F	14,518	0.68	B	
	SB	9+2H	21,500	11,923	0.55	A	16,900	0.79	C	11,943	0.56	A	16,994	0.79	C	
n/o Lake Forest	NB	8+2H	19,500	21,818	1.12	F	12,913	0.66	B	21,856	1.12	F	12,956	0.66	B	
	SB	8+2H	19,500	12,225	0.63	B	17,531	0.90	D	12,283	0.63	B	17,599	0.90	D	
n/o El Toro	NB	5+2H	13,500	20,840	1.54	F	12,074	0.89	D	20,833	1.54	F	12,113	0.90	D	
	SB	5+2H	13,500	10,092	0.75	C	16,074	1.19	F	10,149	0.75	C	16,067	1.19	F	
n/o Alicia	NB	4+1H	9,600	17,663	1.84	F	10,188	1.06	F	17,634	1.84	F	10,224	1.07	F	
	SB	4+1H	9,600	7,768	0.81	D	13,144	1.37	F	7,812	0.81	D	13,114	1.37	F	
s/o Alicia	NB	4+1H	9,600	13,555	1.41	F	7,629	0.79	C	13,526	1.41	F	7,662	0.80	C	
	SB	4+1H	9,600	6,416	0.67	B	10,753	1.12	F	6,487	0.68	B	10,746	1.12	F	
n/o Jeffrey	NB	4+1H	9,600	12,880	1.34	F	9,132	0.95	E	13,178	1.37	F	9,140	0.95	E	
	SB	4+1H	9,600	9,177	0.96	E	10,636	1.11	F	9,100	0.95	E	10,863	1.13	F	
n/o Sand Cyn	NB	4+1H	9,600	12,975	1.35	F	9,478	0.99	E	13,282	1.38	F	9,502	0.99	E	
	SB	4+1H	9,600	9,380	0.98	E	10,570	1.10	F	9,327	0.97	E	10,786	1.12	F	
n/o SR-133	NB	4+1H	9,600	12,695	1.32	F	8,501	0.89	D	12,951	1.35	F	8,531	0.89	D	
	SB	4+1H	9,600	8,264	0.86	D	9,989	1.04	F	8,255	0.86	D	10,172	1.06	F	
n/o Irvine Center	NB	4+1H	9,600	10,963	1.14	F	7,342	0.76	C	11,111	1.16	F	7,365	0.77	C	
	SB	4+1H	9,600	7,142	0.74	C	8,795	0.92	E	7,096	0.74	C	8,906	0.93	E	
n/o I-5	NB	4+1H	9,600	7,902	0.82	D	4,094	0.43	A	7,921	0.83	D	4,121	0.43	A	
	SB	4+1H	9,600	6,162	0.64	B	8,549	0.89	D	6,174	0.64	B	8,655	0.90	D	

Table 21 (Cont.)

ITAM 8.4-10 2030 Pending Peak Hour Volume / Capacity Comparison
2012 Modified Project - Option 2 HS Alternative

Location	Direction	Lanes	Capacity	2011 Approved Project, with Pending Projects						Proposed Project, with Pending Projects - HS Alternative						
				AM Peak			PM Peak			AM Peak			PM Peak			
				Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS	
SR-133	n/o Irvine Blvd	NB	4	8,000	2,735	0.34	A	5,358	0.67	B	2,867	0.36	A	5,297	0.66	B
		SB	4	8,000	6,476	0.81	D	3,337	0.42	A	6,468	0.81	D	3,378	0.42	A
	s/o Irvine Blvd	NB	3	6,000	2,443	0.41	A	5,049	0.84	D	2,443	0.41	A	5,043	0.84	D
		SB	3	6,000	5,782	0.96	E	3,039	0.51	A	5,803	0.97	E	3,055	0.51	A
	n/o I-5	NB	3	6,000	2,274	0.38	A	4,560	0.76	C	2,280	0.38	A	4,552	0.76	C
		SB	3	6,000	3,723	0.62	B	1,956	0.33	A	3,730	0.62	B	1,983	0.33	A
S/o I-5	NB	3	6,000	3,338	0.56	A	4,600	0.77	C	3,363	0.56	A	4,639	0.77	C	
		SB	3	6,000	4,807	0.80	C	3,138	0.52	A	4,854	0.81	D	3,184	0.53	A
	n/o I-405	NB	3	6,000	3,947	0.66	B	3,565	0.59	A	3,941	0.66	B	3,626	0.60	A
SR-241	n/o SR-133	NB	3	6,000	5,356	0.89	D	4,930	0.82	D	5,571	0.93	E	4,883	0.81	D
		SB	3	6,000	5,743	0.96	E	4,820	0.80	C	5,655	0.94	E	4,934	0.82	D
	n/o Portola (West)	NB	4	8,000	6,518	0.81	D	3,377	0.42	A	6,600	0.83	D	3,350	0.42	A
		SB	4	8,000	3,164	0.40	A	5,288	0.66	B	3,082	0.39	A	5,321	0.67	B
	n/o Alton	NB	4	8,000	7,130	0.89	D	3,787	0.47	A	7,187	0.90	D	3,750	0.47	A
		SB	4	8,000	3,727	0.47	A	5,829	0.73	C	3,628	0.45	A	5,845	0.73	C
SR-261	n/o Lake Forest	NB	4	8,000	7,564	0.95	E	3,402	0.43	A	7,545	0.94	E	3,367	0.42	A
		SB	4	8,000	3,119	0.39	A	6,077	0.76	C	3,094	0.39	A	6,042	0.76	C
	n/o Portola	NB	3	6,000	1,306	0.22	A	3,010	0.50	A	1,350	0.23	A	3,014	0.50	A
		SB	3	6,000	3,760	0.63	B	1,416	0.24	A	3,747	0.62	B	1,428	0.24	A
	n/o Irvine Blvd	NB	3	6,000	536	0.09	A	2,390	0.40	A	562	0.09	A	2,413	0.40	A
		SB	3	6,000	3,121	0.52	A	825	0.14	A	3,134	0.52	A	834	0.14	A
n/o Chapman/Sant. Cyn	NB	3	6,000	790	0.13	A	3,109	0.52	A	811	0.14	A	3,160	0.53	A	
		SB	3	6,000	3,768	0.63	B	1,157	0.19	A	3,808	0.63	B	1,172	0.20	A
					5,555	0.93	E	6,840	1.14	F	5,629	0.94	E	6,730	1.12	F
					8,518	1.42	F	5,150	0.86	D	8,257	1.38	F	5,176	0.86	D

Bold = Deficient Segment

*Heritage Fields Project 2012 GPA/ZC Traffic Study
City of Irvine, CA (JN:07151-12.1 Report Tables)*

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Table 22

**Year 2030 With Pending Projects Intersection ICU LOS with 2012 Modified Project
Option 2, High School Alternative Impact Locations with Proposed Mitigation**

Location	Peak Hour	2011 Approved Project, with Pending Projects		With 2012 Modified Project Option 2 - HS Alternative		With Improvement	
		ICU	LOS	ICU	LOS	ICU	LOS
Intersection							
16. Newport Ave. & Irvine Blvd.	PM	0.92	E	0.94	E	0.90	D
54. Browning Ave. & Irvine Blvd.	AM	1.00	E	1.02	F	0.97	E
290. Jeffrey Rd. & Barranca	AM	0.90	D	0.92	E	0.87	D
291. Jeffrey Rd. & Alton Pkwy.	AM	0.93	E	0.95	E	0.91	E
303. Sand Canyon Ave. & I-5 NB Ramps	PM	0.85	D	0.95	E	0.81	D
366. Bake Pkwy. & Rockfield Blvd.	PM	0.98	E	1.02	F	0.92	E
417. El Toro Rd. & Portola Pw.	PM	0.99	E	1.01	F	0.96	E
Ramp							
I-5 NB Off-Ramp to Jamboree Rd.	AM	1.04	F	1.09	F	0.73	C
Mainline (Directional Segments)							
I-5 Northbound, n/o Culver	AM	1.32	F	1.36	F	1.16	F

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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TABLE 23

PENDING POST 2030 OPTION 2 HIGH SCHOOL ALTERNATIVE ARTERIAL ROADWAY PEAK HOUR ANALYSIS SUMMARY

Arterial	ADT Segment Limits	Juris	# of Lanes	Peak Hour Capacity	Refined ADT	Pending P2030 Option 2 - HS Alternative		
						Highest Peak Volume	V/C	Peak Hour LOS
Bake Pkwy. b/w Rockfield Bl. and Marine Wy.	IrV	8D	6,400	79,000		4,105 (AM Northbound)	0.64	B
Trabuco Rd. b/w SR-133 and O St.	IrV	4D	3,200	35,000		1,624 (PM Eastbound)	0.51	A
Jeffrey Rd. b/w Roosevelt and I-5 NB Ramps	IrV	6D	4,800	69,700		3,484 (AM Southbound)	0.73	C
Trabuco Rd. e/o Culver Dr.	IrV	4D	3,200	38,700		1,869 (PM Eastbound)	0.58	A

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Table 24

**ITAM 8.4-10 Post 2030 Pending ICU Comparison
With 2012 Modified Project, Option 2 HS Alternative**

ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	Post 2030				Post 2030			
						2011 Approved Project, with Pending Projects				With Modified Project With Pending - HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
16	Newport Av at Irvine Bl	Tus		Yes		0.78	C	0.89	D	0.79	C	0.91	E
34	Red Hill Av at Irvine Bl	Tus/OC	F	Yes		0.75	C	0.85	D	0.77	C	0.85	D
54	Browning Av at Irvine Bl	Tus/OC				0.85	D	0.76	C	0.86	D	0.75	C
91	Tustin Ranch Rd at Irvine Bl	Tus	F	Yes		0.78	C	0.85	D	0.79	C	0.85	D
123	Jamboree Rd at Tustin Ranch Rd	Tus	P			0.64	B	0.54	A	0.64	B	0.54	A
124	Jamboree Rd at Portola Pw	Tus				0.74	C	0.70	B	0.76	C	0.70	B
125	Jamboree Rd at Irvine Bl	Tus	F		Yes	0.81	D	0.79	C	0.81	D	0.78	C
126	Jamboree Rd at Bryan Av	Tus				0.70	B	0.62	B	0.70	B	0.63	B
127	Jamboree Rd at El Camino Real	Tus				0.71	C	0.70	B	0.72	C	0.70	B
128	Jamboree Rd at I-5 NB Ramps	Irv/Tus				0.62	B	0.71	C	0.65	B	0.71	C
129	Jamboree Rd at I-5 SB Ramps	Irv				0.64	B	0.64	B	0.64	B	0.63	B
131	Jamboree Rd SB at Walnut Av	Irv				0.46	A	0.57	A	0.47	A	0.58	A
132	Jamboree Rd NB at Walnut Av	Irv				0.54	A	0.74	C	0.54	A	0.75	C
133	Jamboree Rd at Edinger Av	Tus			Yes	0.50	A	0.70	B	0.49	A	0.70	B
135	Jamboree Rd NB at Warner Av	Irv				0.40	A	0.44	A	0.41	A	0.45	A
136	Jamboree Rd at Barranca Pw	Irv			Yes	0.87	D	0.97	E	0.87	D	0.98	E
157	SR-261 SB Ramps at Portola Pw	Irv				0.47	A	0.46	A	0.49	A	0.46	A
158	SR-261 NB Ramps at Portola Pw	Irv				0.47	A	0.46	A	0.49	A	0.46	A
159	SR-261 SB Ramps at Irvine Bl	Irv				0.58	A	0.52	A	0.57	A	0.53	A
160	SR-261 NB Ramps at Irvine Bl	Irv				0.70	B	0.62	B	0.71	C	0.62	B
218	Culver Dr at Portola Pk	Irv				0.71	C	0.67	B	0.73	C	0.67	B
220	Culver Dr at Irvine Bl	Irv				0.78	C	0.88	D	0.79	C	0.88	D
221	Culver Dr at Bryan Av	Irv				0.88	D	0.74	C	0.89	D	0.74	C
222	Culver Dr at Trabuco Rd	Irv	F			0.74	C	0.76	C	0.77	C	0.78	C
223	Culver Dr at I-5 SB Ramps	Irv	F			0.59	A	0.65	B	0.60	A	0.66	B
224	Culver Dr at Walnut Av	Irv	F			0.81	D	0.87	D	0.82	D	0.88	D
226	Culver Dr at ICD	Irv				0.77	C	0.70	B	0.77	C	0.72	C
227	Culver Dr at Warner Av	Irv				0.81	D	0.66	B	0.83	D	0.65	B
228	Culver Dr at Barranca Pw	Irv	P			0.88	D	0.80	C	0.89	D	0.79	C
229	Culver Dr at Alton Pkwy	Irv				0.81	D	0.88	D	0.83	D	0.88	D
232	Culver Dr at I-405 NB Ramps	Irv				0.76	C	0.73	C	0.78	C	0.73	C
233	Culver Dr at I-405 SB Ramps	Irv				0.55	A	0.62	B	0.56	A	0.63	B
235	Culver Dr at University	Irv	F			0.63	B	0.77	C	0.63	B	0.78	C
249	Yale Av at Irvine Bl	Irv	F			0.75	C	0.88	D	0.75	C	0.89	D
252	Yale Av at Bryan Av	Irv				0.46	A	0.45	A	0.47	A	0.44	A
255	Yale Av at Trabuco Rd	Irv				0.60	A	0.50	A	0.62	B	0.51	A
259	Yale Av at Walnut Av	Irv				0.58	A	0.72	C	0.61	B	0.74	C
261	Yale Av at ICD	Irv				0.69	B	0.69	B	0.67	B	0.69	B
264	W Yale Lp at Barranca Pw	Irv				0.64	B	0.63	B	0.65	B	0.64	B
267	E Yale Lp at Barranca Pw	Irv				0.68	B	0.65	B	0.69	B	0.66	B
268	W Yale Loop at Alton Pw	Irv				0.65	B	0.66	B	0.67	B	0.65	B
271	E Yale Lp at Alton Pw	Irv				0.74	C	0.67	B	0.74	C	0.67	B
282	Jeffrey Rd at Portola Pw	Irv				0.68	B	0.64	B	0.68	B	0.64	B
283	Jeffrey Rd at Irvine Bl	Irv				0.74	C	0.71	C	0.75	C	0.73	C
284	Jeffrey Rd at Bryan Av	Irv				0.73	C	0.67	B	0.74	C	0.68	B
285	Jeffrey Rd at Trabuco Rd	Irv				0.66	B	0.74	C	0.66	B	0.75	C
286	Jeffrey Rd at Roosevelt	Irv				0.89	D	0.88	D	0.92	E	0.89	D
287	Jeffrey Rd at I-5 NB Ramps	Irv				0.73	C	0.81	D	0.75	C	0.82	D
288	Jeffrey Rd at Walnut Av	Irv	F			0.79	C	0.80	C	0.80	C	0.80	C
289	Jeffrey Rd at ICD	Irv	F			0.82	D	0.79	C	0.83	D	0.80	C
290	Jeffrey Rd at Barranca Pw	Irv	P			0.85	D	0.75	C	0.84	D	0.75	C
291	Jeffrey Rd at Alton Pw	Irv	F	Yes		0.90	D	0.80	C	0.92	E	0.80	C
293	Jeffrey Rd at I-405 NB Ramps	Irv	P			0.68	B	0.79	C	0.70	B	0.79	C
294	University Dr at I-405 SB Ramps	Irv				0.68	B	0.70	B	0.69	B	0.71	C
300	Sand Canyon Av at Portola Pw	Irv				0.48	A	0.59	A	0.48	A	0.60	A

Table 24 (Cont.)

**ITAM 8.4-10 Post 2030 Pending ICU Comparison
With 2012 Modified Project, Option 2 HS Alternative**

ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	Post 2030				Post 2030			
						2011 Approved Project, with Pending Projects				With Modified Project With Pending - HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
301	Sand Canyon Av at Irvine Bl	Irv				0.74	C	0.76	C	0.73	C	0.76	C
302	Sand Canyon Av at Trabuco Pw	Irv	F			0.77	C	0.76	C	0.77	C	0.78	C
303	Sand Canyon Av at I-5 NB Ramps/Marine Wy	Irv	F			0.81	D	0.83	D	0.85	D	0.90	D
305	Sand Canyon Av at I-5 SB Ramps	Irv	F			0.88	D	0.84	D	0.90	D	0.88	D
306	Sand Canyon Av at Oak Canyon	Irv	F			0.87	D	0.78	C	0.86	D	0.79	C
307	Sand Canyon Av at ICD	Irv				0.60	A	0.67	B	0.61	B	0.67	B
309	Sand Canyon Av at Barranca Pw	Irv				0.57	A	0.61	B	0.55	A	0.61	B
310	Sand Canyon Av at Alto	Irv	F			0.64	B	0.74	C	0.65	B	0.75	C
311	Sand Canyon Av at I-405 NB Ramps	Irv	F			0.66	B	0.48	A	0.66	B	0.47	A
312	Sand Canyon Av at I-405 SB Ramps	Irv				0.80	C	0.53	A	0.80	C	0.54	A
313	Laguna Canyon Rd at ICD	Irv				0.35	A	0.44	A	0.35	A	0.43	A
314	Laguna Canyon Rd at Barranca Pw	Irv				0.45	A	0.46	A	0.45	A	0.46	A
315	Laguna Canyon Rd at Alton Pw	Irv				0.53	A	0.59	A	0.54	A	0.59	A
316	SR-133 SB Ramps at Irvine Bl	Irv				0.55	A	0.58	A	0.55	A	0.58	A
317	SR-133 NB Ramps at Irvine Bl	Irv				0.75	C	0.76	C	0.71	C	0.81	D
318	Banting at Barranca Pkwy	Irv				0.73	C	0.54	A	0.73	C	0.53	A
319	Banting at Alton Pw	Irv				0.58	A	0.54	A	0.59	A	0.55	A
321	Laguna Canyon Rd at Old Laguna Canyon Rd	Irv	F			0.85	D	0.76	C	0.86	D	0.77	C
322	Laguna Canyon Rd at SR-73 NB Ramps	Irv			Yes	0.98	E	0.65	B	0.98	E	0.66	B
323	Laguna Canyon Rd at SR-73 SB Ramps	LB			Yes	0.40	A	0.44	A	0.41	A	0.44	A
324	Portola Pw at SR-241 NB Ramps	LB				0.59	A	0.40	A	0.58	A	0.40	A
325	Portola Pw at SR-241 SB Ramps	Irv				0.44	A	0.44	A	0.43	A	0.44	A
327	Barranca Pw at Technology	Irv	P			0.59	A	0.70	B	0.61	B	0.69	B
328	Barranca Pw at I-5 HOV Ramp	Irv			Yes	0.66	B	0.45	A	0.64	B	0.46	A
329	Barranca Pw at ICD	Irv			Yes	0.68	B	0.68	B	0.68	B	0.69	B
330	Barranca Pw at Pacifica	Irv			Yes	0.60	A	0.79	C	0.61	B	0.77	C
333	Pacifica at Gateway	Irv			Yes	0.73	C	0.78	C	0.75	C	0.79	C
335	Alton Pw at Portola Pw	LF				0.49	A	0.37	A	0.49	A	0.37	A
336	Alton Pw at SR-241 Ramps	LF				0.65	B	0.58	A	0.66	B	0.58	A
338	Alton Pw at Irvine Bl	Irv	F		Yes	0.91	E	0.93	E	0.94	E	0.89	D
339	Alton Pw at Toledo Wy	Irv				0.70	B	0.63	B	0.80	C	0.67	B
340	Alton Pw at Jeronimo Rd	Irv				0.66	B	0.54	A	0.67	B	0.54	A
341	Alton Pw at Barranca Pw	Irv				0.59	A	0.75	C	0.57	A	0.74	C
343	Alton Pw at Ada	Irv				0.48	A	0.75	C	0.51	A	0.79	C
344	Alton Pw at Technology	Irv	P			0.58	A	0.88	D	0.59	A	0.88	D
345	Alton Pw at I-5 NB Ramps	Irv	F		Yes	0.90	D	0.54	A	0.89	D	0.54	A
346	Alton Pw at Enterprise	Irv			Yes	0.72	C	0.79	C	0.71	C	0.82	D
348	Alton Pw at ICD	Irv	P		Yes	0.58	A	0.77	C	0.57	A	0.77	C
350	Alton Pw at Pacifica	Irv			Yes	0.59	A	0.58	A	0.61	B	0.59	A
351	Fortune Dr /I-5 SB Ramps	Irv			Yes	0.57	A	0.87	D	0.58	A	0.88	D
357	Enterprise Dr at Fortune Dr	Irv			Yes	0.52	A	0.55	A	0.50	A	0.54	A
358	ICD at Enterprise Dr	Irv	P		Yes	0.65	B	0.54	A	0.66	B	0.54	A
359	ICD at I-405 SB Ramps	LF	P		Yes	0.59	A	0.55	A	0.60	A	0.56	A
361	Bake Pw at Portola Pw	Irv				0.56	A	0.83	D	0.55	A	0.82	D
362	Bake Pw at Irvine Bl	Irv	F		Yes	0.81	D	0.90	D	0.82	D	0.91	E
363	Bake Pw at Toledo Wy	Irv				0.79	C	0.66	B	0.77	C	0.66	B
364	Bake Pw at Jeronimo Rd	Irv	F			0.82	D	0.68	B	0.81	D	0.68	B
365	Bake Pw at Muirlands Bl	Irv				0.74	C	0.93	E	0.74	C	0.92	E
366	Bake Pw at Rockfield Bl	Irv				0.72	C	0.87	D	0.70	B	0.88	D
367	Bake Pw at I-5 NB Ramps	Irv			Yes	0.84	D	0.57	A	0.82	D	0.59	A
368	Bake Pw at I-5 SB Ramps	Irv	F		Yes	0.81	D	0.86	D	0.80	C	0.88	D
371	Bake Pw at Research Dr	Irv				0.58	A	0.81	D	0.59	A	0.82	D
372	Bake Pw at ICD	LF				0.55	A	0.54	A	0.56	A	0.53	A
373	Lake Forest Dr at SR-241 NB Ramp	LF				0.34	A	0.45	A	0.34	A	0.43	A
374	Lake Forest Dr at Portola Pw	LF				0.64	B	0.90	D	0.62	B	0.89	D

Table 24 (Cont.)

**ITAM 8.4-10 Post 2030 Pending ICU Comparison
With 2012 Modified Project, Option 2 HS Alternative**

ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	Post 2030 2011 Approved Project, with Pending Projects				Post 2030 With Modified Project With Pending - HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
375	Lake Forest Dr at SR-241 SB Ramp	LF				0.57	A	0.53	A	0.54	A	0.51	A
376	Lake Forest Dr at Trabuco Rd	LF				0.84	D	0.90	D	0.83	D	0.90	D
377	Lake Forest Dr at Toledo Wy	LF				0.61	B	0.57	A	0.64	B	0.59	A
378	Lake Forest Dr at Jeronimo Rd	LF	P			0.69	B	0.87	D	0.72	C	0.86	D
379	Lake Forest Dr at Muirlands Bl	LF	F			0.74	C	0.85	D	0.74	C	0.85	D
380	Lake Forest Dr at Rockfield Bl	LF	P			0.85	D	0.87	D	0.85	D	0.87	D
381	Lake Forest Dr at I-5 NB Ramps	Irv				0.70	B	0.75	C	0.70	B	0.76	C
383	Lake Forest Dr at Avenida Carlota/I-5 SB	Irv	F		Yes	0.63	B	0.78	C	0.63	B	0.78	C
385	Lake Forest Dr at ICD	LF			Yes	0.50	A	0.72	C	0.50	A	0.72	C
386	Ridge Route Dr at Muirlands Bl	LF				0.57	A	0.70	B	0.57	A	0.68	B
387	Ridge Route Dr at Rockfield Bl	LH	P			0.51	A	0.61	B	0.49	A	0.61	B
388	Ridge Route Dr at Avenida Carlota	LH/LW				0.47	A	0.69	B	0.47	A	0.69	B
389	Ridge Route at Moulton Pw	LH/LW				0.56	A	0.61	B	0.56	A	0.62	B
390	Paseo de Valencia at Ave	LH/LW	P			0.79	C	0.89	D	0.79	C	0.90	D
391	Santa Maria Av at Moulton Pw	LF				0.50	A	0.78	C	0.50	A	0.77	C
392	El Toro Rd at Muirlands Bl	LF				0.73	C	0.84	D	0.73	C	0.85	D
393	El Toro Rd at Rockfield Bl	LF				0.60	A	0.75	C	0.62	B	0.75	C
394	El Toro Rd at I-5 NB Ramps	LH		Yes		0.82	D	0.85	D	0.82	D	0.86	D
396	El Toro Rd at Avenida Carlota	LH/LW	P		Yes	0.62	B	0.89	D	0.62	B	0.89	D
397	El Toro Rd at Paseo de Valencia	LW				0.68	B	0.85	D	0.68	B	0.85	D
398	El Toro Rd at Moulton Pw	AV			Yes	0.83	D	0.91	E	0.83	D	0.91	E
399	El Toro Rd at Aliso Creek Rd	LB				0.56	A	0.70	B	0.57	A	0.70	B
400	El Toro Rd at SR-73 NB Ramps	LB			Yes	0.63	B	0.63	B	0.63	B	0.64	B
401	El Toro Rd at SR-73 SB Ramps	Irv			Yes	0.46	A	0.66	B	0.47	A	0.66	B
402	I-5 NB Ramps at Trabuco Rd	OC				0.63	B	0.64	B	0.61	B	0.67	B
403	SR-241 NB Ramps at Jeffery Rd	OC				0.35	A	0.27	A	0.34	A	0.26	A
404	SR-241 SB Ramps at Jeffery Rd	Irv				0.26	A	0.22	A	0.28	A	0.22	A
405	Laguna Canyon Rd at Quail Hill Pw	Irv				0.41	A	0.37	A	0.43	A	0.36	A
406	Laguna Canyon Rd at Lake Forest Dr	Irv	F			0.59	A	0.52	A	0.59	A	0.53	A
407	Laguna Canyon Rd at Bake Pw	OC	F			0.49	A	0.41	A	0.49	A	0.41	A
408	Laguna Canyon Rd at Santa Maria Dr	LF				0.70	B	0.60	A	0.70	B	0.60	A
409	Bake Pw at Commercentre Dr	Irv				0.66	B	0.73	C	0.66	B	0.74	C
410	Bake Pw at Lake Forest Dr	Irv				0.50	A	0.45	A	0.51	A	0.45	A
411	Bake Pw at Ridge Route	LF				0.05	A	0.05	A	0.05	A	0.05	A
412	Ridge Route Dr at Trabuco Rd	LF				0.58	A	0.70	B	0.58	A	0.71	C
413	Ridge Route Dr at Toledo Wy	LF				0.43	A	0.40	A	0.43	A	0.40	A
414	Ridge Route Dr at Jeronimo Rd	LF				0.50	A	0.66	B	0.51	A	0.66	B
415	Glenn Ranch Rd at Portola Pw	LF				0.65	B	0.67	B	0.65	B	0.66	B
416	Portola Pw East at SR-241 Ramps	LF				0.51	A	0.68	B	0.51	A	0.67	B
417	El Toro Rd at Portola Pw	LF				0.82	D	1.00	E	0.83	D	1.01	F
418	El Toro Rd at Trabuco Rd	LF		Yes		0.77	C	0.78	C	0.75	C	0.78	C
419	El Toro Rd at Toledo Wy	LF				0.54	A	0.52	A	0.53	A	0.52	A
420	El Toro Rd at Jeronimo Rd	LF	P			0.74	C	0.68	B	0.72	C	0.68	B
421	Los Alisos Bl at Trabuco Rd	MV				0.77	C	0.70	B	0.78	C	0.70	B
422	Los Alisos Bl at Jeronimo Rd	LF/MV	P			0.91	E	0.89	D	0.90	D	0.89	D
423	Muirlands Bl at Los Alisos Bl	LF/MV	P			0.85	D	0.84	D	0.85	D	0.84	D
424	Los Alisos Bl at Rockfield Bl	LF	P			0.63	B	0.80	C	0.64	B	0.80	C
425	Los Alisos Bl at Avenida Carlota	LH				0.52	A	0.61	B	0.53	A	0.60	A
426	Los Alisos Bl at Paseo de Valencia	LH/LW				0.58	A	0.83	D	0.58	A	0.85	D
427	Moulton Pw at Glenwood/Indian Creek	AV/LH				0.69	B	0.69	B	0.70	B	0.69	B
428	Laguna Hills Dr at Paseo de Valencia	LH/LW				0.74	C	0.83	D	0.74	C	0.84	D
429	Moulton Pw at Laguna Hills Dr	AV/LH				0.82	D	0.81	D	0.82	D	0.80	C
430	Trabuco Rd at Alicia Pw	MV				0.72	C	0.72	C	0.71	C	0.74	C
431	Jeronimo Rd at Alicia Pw	MV				0.78	C	0.78	C	0.78	C	0.76	C
432	Alicia Pw at Muirlands Bl	MV	P			0.67	B	0.85	D	0.68	B	0.83	D

Table 24 (Cont.)

**ITAM 8.4-10 Post 2030 Pending ICU Comparison
With 2012 Modified Project, Option 2 HS Alternative**

ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	Post 2030 2011 Approved Project, with Pending Projects				Post 2030 With Modified Project With Pending - HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
433	I-5 NB Ramps at Alicia Pw	MV				0.43	A	0.69	B	0.43	A	0.69	B
434	I-5 SB Ramps at Alicia Pw	LH				0.67	B	0.75	C	0.67	B	0.75	C
435	Alicia Pw at Paseo de Valencia	LH				0.68	B	0.79	C	0.69	B	0.79	C
436	Moulton Pw at Alicia Pw	LH				0.74	C	0.76	C	0.74	C	0.76	C
437	Scientific Wy at ICD	Irv				0.32	A	0.42	A	0.33	A	0.41	A
441	Loop Rd at Jamboree Rd	Tus				0.27	A	0.19	A	0.27	A	0.18	A
444	Sand Canyon Av at Burt Rd	OC				0.87	D	0.87	D	0.90	D	0.90	D
452	Jamboree Rd at Santiago Canyon Rd	Irv				0.67	B	0.67	B	0.73	C	0.70	B
459	Jeffrey at Santiago Canyon Rd	Ora				0.29	A	0.26	A	0.31	A	0.27	A
463	Jamboree Rd at Chapman Av	OC				0.76	C	0.84	D	0.81	D	0.86	D
464	SR-241/SR-261 SB Ramps at Champman Av	Ora				0.68	B	0.64	B	0.68	B	0.64	B
465	SR-241/SR-261 NB Ramps at Chapman Av	OC				0.60	A	0.68	B	0.62	B	0.66	B
466	SR-241 NB Ramp at Santiago Canyon Rd	OC				0.58	A	0.63	B	0.64	B	0.64	B
468	Jamboree Rd at Canyon View	OC				0.65	B	0.41	A	0.65	B	0.43	A
469	Jamboree Rd at Handy Creek Rd	Ora				0.54	A	0.50	A	0.54	A	0.52	A
470	SR-261 SB Ramps at Handy Creek Rd	Ora				0.34	A	0.15	A	0.34	A	0.14	A
471	SR-261 NB Ramps at Handy Creek Rd	OC				0.15	A	0.29	A	0.14	A	0.29	A
477	El Camino Real N at Bryan Av	Irv				0.44	A	0.47	A	0.43	A	0.48	A
481	Laguna Canyon Rd at Technology	Irv				0.46	A	0.43	A	0.44	A	0.44	A
482	Visions (formerly Road A) at Trabuco Rd	Irv				0.38	A	0.32	A	0.41	A	0.34	A
483	Road C at Trabuco Rd	Irv				0.35	A	0.34	A	0.38	A	0.35	A
484	Sand Canyon at Roosevelt	Irv				0.68	B	0.54	A	0.68	B	0.53	A
485	Sand Canyon at Nighthmist	Irv				0.80	C	0.61	B	0.78	C	0.61	B
486	SR-133 SB Ramps at Trabuco Rd	Irv				0.57	A	0.59	A	0.58	A	0.61	B
487	SR-133 NB Ramps at Trabuco Rd	Irv				0.54	A	0.67	B	0.55	A	0.69	B
514	Alton Pw at Rancho Pw	LF				0.64	B	0.77	C	0.62	B	0.75	C
515	Bake Pw N at Rancho Pw North	LF				0.66	B	0.85	D	0.65	B	0.86	D
516	Lake Forest Dr at Rancho Pw North	LF				0.70	B	0.89	D	0.70	B	0.89	D
517	Portola Pw at Rancho Pw	LF				0.64	B	0.70	B	0.63	B	0.71	C
518	Alton Pw at Commercentre	LF				0.63	B	0.77	C	0.62	B	0.77	C
555	Bake Pw at Rancho Pkw	LF				0.70	B	0.73	C	0.70	B	0.74	C
556	Ridge Valley at Portola Pw	Irv				0.71	C	0.68	B	0.69	B	0.67	B
557	O St at C St	Irv				0.39	A	0.36	A	0.38	A	0.35	A
558	O St at Irvine Bl	Irv				0.64	B	0.80	C	0.62	B	0.80	C
559	O St at Trabuco Rd	Irv				0.72	C	0.69	B	0.84	D	0.67	B
560	O St at Marine Wy	Irv				0.46	A	0.61	B	0.50	A	0.64	B
562	D St. at Marine Wy	Irv				0.43	A	0.69	B	0.55	A	0.72	C
563	B St. at Irvine Bl	Irv				0.68	B	0.71	C	0.65	B	0.70	B
564	C St. at Marine Wy	Irv				0.47	A	0.60	A	0.62	B	0.59	A
566	Marine Wy at Barranca Pw	Irv				0.65	B	0.63	B	0.64	B	0.62	B
567	Marine Wy at Alton Pw	Irv				0.63	B	0.67	B	0.65	B	0.62	B
568	Marine Wy at Rockfield Bl	Irv				0.72	C	0.59	A	0.47	A	0.42	A
569	Bake Pw at Marine Wy	Irv				0.67	B	0.63	B	0.78	C	0.72	C
571	Portola Springs at Portola Pkwy	Irv				0.62	B	0.60	A	0.71	C	0.58	A
572	Modjeska / A St. at Irvine Bl	Irv				0.67	B	0.73	C	0.64	B	0.72	C
603	O St at LN St	Irv				0.38	A	0.32	A	0.38	A	0.30	A
605	O St at LQ St	Irv				0.55	A	0.53	A	0.59	A	0.54	A
608	O St at LV St	Irv				0.36	A	0.33	A	0.39	A	0.36	A
626	LY St at LQ St	Irv				0.37	A	0.36	A	0.46	A	0.40	A
627	LY St at Irvine Bl	Irv				0.53	A	0.59	A	0.53	A	0.59	A
631	LY St at Trabuco Rd	Irv				0.11	A	0.13	A	0.13	A	0.16	A
633	Sterling at Rockfield	Irv				0.25	A	0.30	A	Not Applicable			
637	Sterling at Muirlands Bl	Irv				0.33	A	0.39	A	0.36	A	0.48	A
640	Thomas at Muirlands Bl.	Irv				0.26	A	0.41	A	0.26	A	0.43	A
782	A St at LQ St	Irv				0.31	A	0.28	A	0.33	A	0.32	A

Table 24 (Cont.)

**ITAM 8.4-10 Post 2030 Pending ICU Comparison
With 2012 Modified Project, Option 2 HS Alternative**

ID	Intersection	Juris.	Funded NITM ¹	ATMS App.	LOS E OK	Post 2030 2011 Approved Project, with Pending Projects				Post 2030 With Modified Project With Pending - HS Alternative			
						AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
						ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
787	Z St at LQ St	Irv				0.30	A	0.26	A	0.27	A	0.27	A
790	Z St at Irvine Bl	Irv				0.72	C	0.70	B	0.68	B	0.70	B
798	B St. at LQ St	Irv				0.46	A	0.37	A	0.36	A	0.37	A
799	"B" St. at Marine Wy.	Irv				0.47	A	0.55	A	0.72	C	0.66	B
800	LQ St at Irvine Bl	Irv				0.82	D	0.73	C	0.78	C	0.71	C
820	Fairbanks at Irvine Bl.	Irv				0.71	C	0.80	C	0.71	C	0.81	D
821	Alton Pkwy. at Fairbanks	Irv				0.55	A	0.56	A	0.66	B	0.69	B
822	"F" Street at Irvine Bl.	Irv				Not Applicable				0.71	C	0.72	C
831	"G" Street at Marine Way	Irv				Not Applicable				0.55	A	0.59	A
832	Fairbanks at Astor St.	Irv				0.14	A	0.17	A	0.54	A	0.58	A

Bold = Deficient Intersection

1. Fully Funded (F), Partially Funded (P)

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 25

**Post-2030 With Pending Projects Intersection ICU LOS with 2012 Modified Project
Option 2, High School Alternative Impact Locations**

Location	Peak Hour	2011 Approved Project, with Pending Projects		With 2012 Modified Project Option 2 - HS Alternative	
		ICU	LOS	ICU	LOS
Intersection					
16. Newport Ave. & Irvine Bl.	PM	0.89	D	0.91	E
286. Jeffrey Rd. & Roosevelt	AM	0.89	D	0.92	E
291. Jeffrey Rd. & Alton Pkwy.	AM	0.90	D	0.92	E
Ramp					
I-5 NB Off-Ramp to Jamboree Rd.	AM	1.01	F	1.07	F

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City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 26
Post-2030 Freeway/Tollway Ramp LOS Summary
2012 Modified Project - Option 2, High School Alternative

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project, with Pending Projects				Modified Project, with Pending Projects - HS Alt.			
				AM Peak Hour Volume	V/C ²	LOS	PM Peak Hour Volume	V/C ²	LOS	AM Peak Hour Volume	V/C ²
I-5 at Jambooree	SB Direct On	1	1,500	394	0.26	A	1,110	0.74	C	429	0.29
	SB Loop On	1	1,080	556	0.51	A	470	0.44	A	571	0.53
	NB Direct On	1	1,080	475	0.44	A	480	0.44	A	475	0.44
	NB Loop On	1	1,080	677	0.63	B	670	0.62	B	677	0.63
	SB Off	1	1,500	1,429	0.95	E	1,449	0.97	E	1,429	0.95
	NB Off	1	1,500	1,519	1.01	F	1,306	0.87	D	1,610	1.07
	SB Direct On	1	900	240	0.27	A	300	0.33	A	240	0.27
	SB Loop On	1	900	350	0.39	A	260	0.29	A	360	0.40
I-5 at Culver	NB Direct On	1	900	723	0.80	C	178	0.20	A	717	0.80
	NB Loop On	1	1,500	1,063	0.71	C	590	0.39	A	1,083	0.72
	SB Off	2	2,250	934	0.42	A	2,037	0.91	E	932	0.41
	NB Off	1	1,500	341	0.23	A	489	0.33	A	343	0.23
	SB On	1	1,080	1,300	1.20	F	869	0.80	C	1,269	1.18
	NB Direct On	1	1,080	620	0.57	A	240	0.22	A	660	0.61
	SB Loop On	1	1,500	250	0.17	A	270	0.18	A	250	0.17
	SB Off	1	1,500	610	0.41	A	1,110	0.74	C	610	0.41
I-5 at Jeffrey	NB Off	2	2,250	957	0.43	A	1,450	0.64	B	961	0.43
	SB On	1	1,500	660	0.44	A	770	0.51	A	650	0.43
	NB On	1	1,500	770	0.51	A	1,599	1.07	F	920	0.61
	SB Off	1	1,500	1,877	1.25	F	829	0.55	A	1,797	1.20
	NB Off	2	2,250	720	0.32	A	730	0.32	A	711	0.32
	NB On	1	1,500	30	0.02	A	270	0.18	A	30	0.02
	SB Off	1	1,500	289	0.19	A	110	0.07	A	269	0.18
	SB On	1	1,500	440	0.29	A	670	0.45	A	480	0.32
I-5 at Sand Canyon	NB Direct On	2	1,800	301	0.17	A	1,270	0.71	C	341	0.19
	NB Loop On	1	1,500	582	0.39	A	149	0.10	A	574	0.38
	SB Off	2	2,250	2,296	1.02	F	1,083	0.48	A	2,289	1.02
	NB Off	2	2,250	1,172	0.52	A	319	0.14	A	1,161	0.52
	SB Direct On	1	1,500	100	0.07	A	142	0.09	A	113	0.08
	SB Loop On	1	1,080	360	0.33	A	903	0.84	D	391	0.36
	NB Direct On	2	3,400	1,368	0.40	A	1,212	0.36	A	1,404	0.41
	NB Loop On	1	1,500	320	0.21	A	1,000	0.67	B	320	0.21
I-5 at Barranca	SB Off	2	3,000	3,052	1.02	F	2,433	0.81	D	3,031	1.01
	NB Off	2	3,000	1,489	0.50	A	626	0.21	A	1,383	0.46
	SB Direct On	1	1,500	310	0.21	A	843	0.56	A	311	0.21
	SB Loop On	1	1,080	403	0.37	A	660	0.61	B	406	0.38
	NB On	2	1,800	1,393	0.77	C	1,087	0.60	A	1,412	0.78
	SB Off	2	3,000	1,759	0.59	A	2,324	0.77	C	1,760	0.59
	NB Off	1	1,500	1,491	0.99	E	717	0.48	A	1,474	0.98
									E	715	0.48

Table 26 (Cont.)

Post-2030 Freeway/Tollway Ramp LOS Summary
2012 Modified Project - Option 2, High School Alternative

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project, with Pending Projects				Modified Project, with Pending Projects - HS Alt.							
				AM Peak Hour Volume	V/C ²	LOS	Volume	V/C ²	LOS	AM Peak Hour Volume	V/C ²	LOS			
I-5 at El Toro	SB Direct On	1	1,080	106	0.10	A	141	0.13	A	110	0.10	A	138	0.13	A
	SB Loop On	1	1,500	454	0.30	A	503	0.34	A	462	0.31	A	501	0.33	A
	NB Direct On	1	1,500	1,529	1.02	F	1,121	0.75	C	1,551	1.03	F	1,135	0.76	C
	NB Loop On	1	1,500	1,359	0.91	E	1,283	0.86	D	1,388	0.93	E	1,275	0.85	D
	SB Off	2	2,250	2,931	1.30	F	3,050	1.36	F	2,951	1.31	F	3,099	1.38	F
	NB Off	1	1,500	1,322	0.88	D	1,204	0.80	C	1,343	0.90	D	1,208	0.81	D
	SB Direct On	1	1,080	150	0.14	A	203	0.19	A	151	0.14	A	203	0.19	A
	SB Loop On	1	1,500	820	0.55	A	752	0.50	A	824	0.55	A	753	0.50	A
I-5 at Alicia	NB Direct On	1	1,500	1,230	0.82	D	900	0.60	A	1,230	0.82	D	890	0.59	A
	NB Loop On	1	1,500	1,330	0.89	D	840	0.56	A	1,350	0.90	D	840	0.56	A
	SB Off	2	3,000	2,097	0.70	B	2,200	0.73	C	2,097	0.70	B	2,200	0.73	C
	NB Off	1	1,500	311	0.21	A	1,093	0.73	C	312	0.21	A	1,091	0.73	C
	SB Direct On	1	1,500	271	0.18	A	740	0.49	A	280	0.19	A	770	0.51	A
	SB Loop On	1	900	251	0.28	A	330	0.37	A	250	0.28	A	330	0.37	A
	NB Direct On	1	1,500	932	0.62	B	660	0.44	A	930	0.62	B	660	0.44	A
	NB Loop On	1	1,500	591	0.39	A	400	0.27	A	580	0.39	A	400	0.27	A
I-405 at Culver	SB Off	2	3,000	830	0.28	A	1,380	0.46	A	830	0.28	A	1,402	0.47	A
	NB Off	1	1,500	1,281	0.85	D	1,296	0.86	D	1,310	0.87	D	1,304	0.87	D
	SB Direct On	1	1,500	1,060	0.71	C	1,120	0.75	C	1,082	0.72	C	1,120	0.75	C
	SB Loop On	1	900	300	0.33	A	290	0.32	A	280	0.31	A	290	0.32	A
	NB Direct On	1	1,500	1,350	0.90	D	600	0.40	A	1,350	0.90	D	600	0.40	A
	SB Loop On	1	900	340	0.38	A	110	0.12	A	320	0.36	A	100	0.11	A
	NB Off	1	1,500	634	0.42	A	777	0.52	A	625	0.42	A	775	0.52	A
	NB Off	2	2,250	1,473	0.65	B	1,920	0.85	D	1,470	0.65	B	1,890	0.84	D
I-405 at Jeffrey	SB Direct On	1	1,500	320	0.21	A	250	0.17	A	310	0.21	A	230	0.15	A
	SB Loop On	1	1,500	190	0.13	A	430	0.29	A	190	0.13	A	420	0.28	A
	NB Direct On	1	1,500	1,232	0.82	D	1,370	0.91	E	1,273	0.85	D	1,363	0.91	E
	NB Loop On	1	1,500	641	0.43	A	350	0.23	A	641	0.43	A	371	0.25	A
	SB Off	1	1,500	1,972	1.31	F	1,065	0.71	C	1,947	1.30	F	1,095	0.73	C
	NB Off	1	1,500	708	0.47	A	516	0.34	A	688	0.46	A	517	0.34	A
	SB Direct On	1	900	60	0.07	A	90	0.10	A	60	0.07	A	90	0.10	A
	SB Loop On	1	900	270	0.30	A	400	0.44	A	270	0.30	A	391	0.43	A
I-405 at Irvine Center	NB Direct On	1	1,500	291	0.19	A	606	0.40	A	326	0.22	A	594	0.40	A
	SB Loop On	1	1,500	283	0.19	A	1,293	0.86	D	278	0.19	A	1,283	0.86	D
	SB Off	2	2,250	2,032	0.90	D	1,432	0.64	B	2,043	0.91	E	1,499	0.67	B
	NB Off	2	3,000	1,259	0.42	A	520	0.17	A	1,249	0.42	A	511	0.17	A
	SR-133 at SR-241														
	NB SR-133 to SB SR-241	2	4,000	592	0.15	A	2,390	0.60	A	561	0.14	A	2,400	0.60	A
	NB SR-241 to SB SR-133	2	4,000	3,162	0.79	C	1,005	0.25	A	3,212	0.80	C	954	0.24	A
	NB SR-133 to NB SR-241	2	4,000	1,942	0.49	A	3,387	0.85	D	2,141	0.54	A	3,324	0.83	D

Table 26 (Cont.)

Post-2030 Freeway/Tollway Ramp LOS Summary
2012 Modified Project - Option 2, High School Alternative

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project, with Pending Projects				Modified Project, with Pending Projects - HS Alt.			
				AM Peak Hour Volume	V/C ²	LOS	Volume	V/C ²	LOS	AM Peak Hour Volume	V/C ²
SR-241 to SB SR-133	SB On	2	4,000	4,091	1.02	F	1,952	0.49	A	3,985	1.00
	NB Direct On	1	1,500	374	0.25	A	340	0.23	A	416	0.28
	NB Loop On	1	1,500	190	0.13	A	280	0.19	A	300	0.20
	SB Off	2	2,250	441	0.20	A	200	0.13	A	130	0.09
	NB Off	1	1,500	190	0.13	A	199	0.09	A	441	0.20
	SB On	1	1,500	762	0.51	A	682	0.45	A	760	0.51
	NB On	1	1,500	150	0.10	A	570	0.38	A	150	0.10
SR-133 at Trabuco	SB Off	1	1,500	700	0.47	A	289	0.19	A	690	0.46
	NB Off	1	1,500	860	0.57	A	952	0.63	B	849	0.57
	SR-133 at I-5									A	960
NB I-5 to NB SR-133	SB SR-133 to SB I-5	1	2,000	1,203	0.60	A	1,674	0.84	D	1,237	0.62
	SB SR-133 to NB I-5	1	2,000	1,959	0.98	E	1,215	0.61	B	1,960	0.98
	SB SR-133 to NB I-5	1	2,000	1,308	0.65	B	460	0.23	A	1,343	0.67
	SB I-5 to NB SR-133	1	2,000	632	0.32	A	1,406	0.70	B	599	0.30
	SB I-5 to SB SR-133	2	4,000	1,973	0.49	A	1,816	0.45	A	2,014	0.50
	NB SR-133 to NB I-5	2	4,000	2,232	0.56	A	2,047	0.51	A	2,251	0.56
	SB Loop On	1	1,080	141	0.13	A	1,190	1.10	F	160	0.15
SR-133 at Barranca	NB Direct On	1	1,080	262	0.24	A	640	0.59	A	297	0.28
	NB Loop On	1	1,080	490	0.45	A	1,551	1.44	F	510	0.47
	SB Off	2	3,000	2,280	0.76	C	620	0.21	A	2,280	0.76
	NB Off	2	2,250	1,525	0.68	B	450	0.20	A	1,509	0.67
	SR-133 at I-405									B	500
SB SR-133 to SB I-405	SB On	1	2,000	1,044	0.52	A	1,076	0.54	A	1,029	0.51
	NB SR-133 to SB I-405	1	2,000	55	0.03	A	76	0.04	A	53	0.03
	SB SR-133 to NB I-405	2	4,000	1,165	0.29	A	617	0.15	A	1,226	0.31
	NB SR-133 to NB I-405	2	4,000	1,141	0.29	A	941	0.24	A	1,153	0.29
	SB I-405 to NB SR-133	1	2,000	1,679	0.84	D	1,724	0.86	D	1,642	0.82
	SB I-405 to SB SR-133	1	2,000	555	0.28	A	603	0.30	A	555	0.28
	NB I-405 to SB SR-133	1	2,000	249	0.12	A	205	0.10	A	271	0.14
SR-241 at Chapman / Santiago Cyn	SB On	2	1,800	1,098	0.61	B	498	0.28	A	1,120	0.62
	NB On	1	1,500	481	0.32	A	350	0.23	A	471	0.31
	SB Off	1	1,500	885	0.59	A	521	0.35	A	776	0.52
	NB Off	1	1,500	38	0.03	A	23	0.02	A	1,044	0.70
SR-241 at Jeffrey	SB On	1	1,500	390	0.26	A	355	0.24	A	390	0.26
	NB On	1	1,500	519	0.35	A	384	0.26	A	529	0.35
	NB Off	1	1,500	22	0.01	A	71	0.05	A	22	0.01

Table 26 (Cont.)

Post-2030 Freeway/Tollway Ramp LOS Summary
2012 Modified Project - Option 2, High School Alternative

Interchange	Ramp ¹	Lanes	Peak Hour Capacity	2011 Approved Project, with Pending Projects			Modified Project, with Pending Projects - HS Alt.		
				AM Peak Hour Volume	V/C ²	LOS	PM Peak Hour Volume	V/C ²	LOS
SR-241 at Portola (West)	SB On	1	1,500	170	0.11	A	410	0.27	A
	NB On	1	1,500	120	0.08	A	33	0.02	A
	SB Off	1	1,500	49	0.03	A	135	0.09	A
	NB Off	1	1,500	591	0.39	A	209	0.14	A
	SB On	1	1,500	429	0.29	A	1,154	0.77	C
	NB On	1	1,500	432	0.29	A	618	0.41	A
SR-241 at Alton	SB Off	1	1,500	721	0.48	A	456	0.30	A
	NB Off	2	2,250	1,075	0.48	A	629	0.28	A
	NB On	2	2,250	210	0.09	A	854	0.38	A
	SB Off	1	1,500	822	0.55	A	413	0.28	A
SR-241 at Lake Forest	SB On	1	1,500	327	0.22	A	1,427	0.95	E
	NB On	2	2,250	815	0.36	A	440	0.20	A
	SB Off	1	1,500	532	0.35	A	617	0.41	A
	NB Off	2	2,250	2,176	0.97	E	580	0.26	A
SR-261 at Chapman	SB On	1	1,500	920	0.61	B	240	0.16	A
	NB Off	1	1,500	141	0.09	A	702	0.47	A
	SB On	1	1,500	175	0.12	A	100	0.07	A
	NB On	1	1,500	210	0.14	A	140	0.09	A
SR-261 at Portola	SB Off	1	1,500	103	0.07	A	89	0.06	A
	NB Off	1	1,500	100	0.07	A	106	0.07	A
	SB On	1	1,500	780	0.52	A	330	0.22	A
	NB On	1	1,500	220	0.15	A	160	0.11	A
SR-261 at Irvine	SB Off	1	1,500	80	0.05	A	70	0.05	A
	NB Off	1	1,500	223	0.15	A	381	0.25	A
							212	0.14	A
							392	0.26	A

¹ NB = Northbound; SB = Southbound.² V/C = Volume/Capacity Ratio.**BOLD** = Unsatisfactory level of service.

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

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Table 27

ITAM 8.4-10 Post 2030 Pending Peak Hour Volume / Capacity Comparison
2012 Modified Project - Option 2 HS Alternative

Location	Direction	Lanes	Capacity	2011 Approved Project, with Pending Projects				2012 Modified Project, with Pending Projects - HS Alt.			
				AM Peak		PM Peak		AM Peak		PM Peak	
				Volume	V/C Ratio	Volume	V/C Ratio	Volume	V/C Ratio	Volume	V/C Ratio
n/o Newport	NB	5+1H	11,600	14,958	1.29	F	11,892	1.03	F	15,171	1.31
	SB	5+1H	11,600	9,689	0.84	D	9,948	0.86	D	9,614	0.83
n/o Red Hill	NB	5+1H	11,600	14,205	1.22	F	11,304	0.97	E	14,435	1.24
	SB	5+1H	11,600	11,619	1.00	E	11,956	1.03	F	11,511	0.99
n/o Justin Ranch	NB	5+1H	11,600	14,834	1.28	F	11,959	1.03	F	15,072	1.30
	SB	5+1H	11,600	12,351	1.06	F	12,669	1.09	F	12,233	1.05
n/o Jamboree	NB	5+1H	11,600	14,468	1.25	F	11,676	1.01	F	14,730	1.27
	SB	5+1H	11,600	12,062	1.04	F	12,332	1.06	F	11,943	1.03
n/o Culver	NB	5+1H	11,600	14,627	1.26	F	11,634	1.00	E	14,970	1.29
	SB	5+1H	11,600	11,732	1.01	F	12,342	1.06	F	11,676	1.01
n/o Jeffrey	NB	5+1H	11,600	12,789	1.10	F	10,897	0.94	E	13,120	1.13
	SB	5+1H	11,600	11,389	0.98	E	11,171	0.96	E	11,347	0.98
n/o Sand Cyn	NB	5+1H	11,600	12,781	1.10	F	11,041	0.95	E	13,084	1.13
	SB	5+1H	11,600	11,922	1.03	F	11,501	0.99	E	11,833	1.02
I-5	NB	4+1H	9,600	10,302	1.07	F	8,887	0.93	E	10,432	1.09
	SB	4+1H	9,600	9,549	0.99	E	9,266	0.97	E	9,539	0.99
n/o I-405	NB	4+1H	9,600	10,771	1.12	F	7,751	0.81	D	10,851	1.13
	SB	4+1H	9,600	7,861	0.82	D	9,577	1.00	E	7,859	0.82
n/o Bake	NB	9+2H	21,500	21,181	0.99	E	14,272	0.66	B	21,383	0.99
	SB	9+2H	21,500	11,993	0.56	A	16,356	0.76	C	11,955	0.56
n/o Lake Forest	NB	8+2H	19,500	21,129	1.08	F	13,150	0.67	B	21,183	1.09
	SB	8+2H	19,500	12,294	0.63	B	17,046	0.87	D	12,299	0.63
n/o El Toro	NB	5+2H	13,500	20,121	1.49	F	12,185	0.90	D	20,141	1.49
	SB	5+2H	13,500	10,166	0.75	C	15,573	1.15	F	10,186	0.75
n/o Alicia	NB	4+1H	9,600	16,987	1.77	F	10,162	1.06	F	16,939	1.76
	SB	4+1H	9,600	7,880	0.82	D	12,511	1.30	F	7,874	0.82
S/o Alicia	NB	4+1H	9,600	13,084	1.36	F	7,652	0.80	C	13,030	1.36
	SB	4+1H	9,600	6,409	0.67	B	10,339	1.08	F	6,416	0.67
n/o Jeffrey	NB	4+1H	9,600	12,067	1.26	F	9,003	0.94	E	12,348	1.29
	SB	4+1H	9,600	9,140	0.95	E	10,224	1.07	F	9,056	0.94
I-405	NB	4+1H	9,600	12,422	1.29	F	9,442	0.98	E	12,717	1.32
	SB	4+1H	9,600	9,333	0.97	E	10,094	1.05	F	9,246	0.96
n/o SR-133	NB	4+1H	9,600	12,203	1.27	F	8,465	0.88	D	12,422	1.29
	SB	4+1H	9,600	8,206	0.85	D	9,624	1.00	E	8,140	0.85
n/o Irvine Center	NB	4+1H	9,600	10,145	1.06	F	7,222	0.75	C	10,314	1.07
	SB	4+1H	9,600	6,202	0.65	B	8,286	0.86	D	6,142	0.64
I-5	NB	4+1H	9,600	6,202	0.65	B	8,236	0.86	D	8,236	0.86

Table 27 (Cont.)

ITAM 8.4-10 Post 2030 Pending Peak Hour Volume / Capacity Comparison
2012 Modified Project - Option 2 HS Alternative

Location	Direction	Lanes	Capacity	2011 Approved Project, with Pending Projects				2012 Modified Project, with Pending Projects - HS Alt.							
				AM Peak	V/C Ratio	LOS	Volume	AM Peak	V/C Ratio	LOS	Volume	PM Peak			
SR-133	NB	4+1H	9,600	2,534	0.26	A	5,777	0.60	A	2,702	0.28	A	5,724	0.60	A
	SB	4+1H	9,600	7,253	0.76	C	2,957	0.31	A	7,197	0.75	C	2,959	0.31	A
	NB	3+1H	7,600	2,261	0.30	A	5,559	0.73	C	2,322	0.31	A	5,565	0.73	C
	SB	3+1H	7,600	6,668	0.88	D	2,816	0.37	A	6,677	0.88	D	2,809	0.37	A
	NB	3+1H	7,600	2,118	0.28	A	4,994	0.66	B	2,171	0.29	A	5,003	0.66	B
	SB	3+1H	7,600	4,684	0.62	B	2,077	0.27	A	4,668	0.61	B	2,089	0.27	A
SR-241	NB	3	6,000	3,366	0.56	A	4,913	0.82	D	3,420	0.57	A	4,935	0.82	D
	SB	3	6,000	5,437	0.91	E	3,352	0.56	A	5,461	0.91	E	3,326	0.55	A
	NB	3	6,000	3,969	0.66	B	3,747	0.62	B	3,966	0.66	B	3,832	0.64	B
	SB	3	6,000	3,730	0.62	B	3,359	0.56	A	3,778	0.63	B	3,342	0.56	A
	NB	3+1H	7,600	5,613	0.74	C	5,643	0.74	C	5,855	0.77	C	5,583	0.73	C
	SB	3+1H	7,600	6,612	0.87	D	4,952	0.65	B	6,462	0.85	D	5,079	0.67	B
SR-261	NB	4+1H	9,600	6,833	0.71	C	3,260	0.34	A	6,927	0.72	C	3,214	0.33	A
	SB	4+1H	9,600	3,113	0.32	A	5,389	0.56	A	3,039	0.32	A	5,474	0.57	A
	NB	4+1H	9,600	6,960	0.73	C	3,345	0.35	A	7,024	0.73	C	3,297	0.34	A
	SB	4+1H	9,600	3,235	0.34	A	5,531	0.58	A	3,162	0.33	A	5,590	0.58	A
	NB	4+1H	9,600	7,728	0.81	D	3,106	0.32	A	7,707	0.80	C	3,082	0.32	A
	SB	4+1H	9,600	2,787	0.29	A	5,988	0.62	B	2,756	0.29	A	6,005	0.63	B
n/o Portola	NB	3+1H	7,600	1,185	0.16	A	3,119	0.41	A	1,210	0.16	A	3,104	0.41	A
	SB	3+1H	7,600	3,956	0.52	A	1,286	0.17	A	3,963	0.52	A	1,306	0.17	A
	NB	3+1H	7,600	684	0.09	A	2,778	0.37	A	701	0.09	A	2,776	0.37	A
	SB	3+1H	7,600	3,660	0.48	A	909	0.12	A	3,671	0.48	A	927	0.12	A
	NB	3+1H	7,600	980	0.13	A	3,527	0.46	A	986	0.13	A	3,539	0.47	A
	SB	3+1H	7,600	4,294	0.57	A	1,299	0.17	A	4,318	0.57	A	1,315	0.17	A
n/o Chapman/Sant. Cyn	NB	3+1H	7,600	6,031	0.79	C	8,159	1.07	F	6,138	0.81	D	8,011	1.05	F
	SB	3+1H	7,600	10,280	1.35	F	5,627	0.74	C	10,038	1.32	F	5,667	0.75	C

Bold = Deficient Segment

Heritage Fields Project 2012 GPA/ZC Traffic Study
City of Irvine, CA (JN:071-51-12.1 Report Tables)
U:\UCJobs\07100-07500_07100007151\Project 2012 GPA/ZC\High School Location Alternative\[HS Alt Tables.xls]27

Table 28

**Post-2030 With Pending Projects Intersection ICU LOS with 2012 Modified Project
Option 2, High School Alternative Impact Locations with Proposed Mitigation**

Location	Peak Hour	2011 Approved Project, with Pending Projects		With 2012 Modified Project Option 2 - HS Alternative		With Improvement	
		ICU	LOS	ICU	LOS	ICU	LOS
Intersection							
16. Newport Ave. & Irvine Bl.	PM	0.89	D	0.91	E	0.87	D
286. Jeffrey Rd. & Roosevelt	AM	0.89	D	0.92	E	0.88	D
291. Jeffrey Rd. & Alton Pkwy.	AM	0.90	D	0.92	E	0.89	D
Ramp							
I-5 NB Off-Ramp to Jamboree Rd.	AM	1.01	F	1.07	F	0.72	C

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

U:\UcJobs\07100-07500\07100\07151\Project 2012 GPAZC\High School Location Alternative\[HS Alt Tables.xls]28

Table 29

2012 Modified Project Option 2, HS Alternative
Mainline, Roadway Segment, Intersection and Ramp Impact Locations

Location	Jursidiction	Existing Funding Source ¹	With 2012 Modified Project Option 2		With 2012 Modified Project Option 2 - HS Alternative	
			2030	Post-2030	2030	Post-2030
Intersections						
16. Newport Ave. & Irvine Blvd.	Tustin	--	X		X	
54. Browning Ave. & Irvine Blvd.	County/Tustin	--	X		X	
221. Culver Dr. & Bryan Ave.	Irvine	--	X		X	
228. Culver Dr. & Barranca Pkwy.	Irvine	NITM-FS	X		X	
286. Jeffrey Rd. & Roosevelt	Irvine	--		X		X
290. Jeffrey Rd. & Barranca Pkwy.	Irvine	NITM-FS/PA9C	X		X	
291. Jeffrey Rd. & Alton Pkwy.	Irvine	NITM ²		X	X	X
303. Sand Canyon Ave. & I-5 NB Ramp/Marine Way	Irvine	--	X		X	
306. Sand Canyon Ave. & Oak Canyon	Irvine	PA40/PA12 ³	X		X	
321. Laguna Canyon & Old Laguna Canyon	Irvine	NITM ²		X		X
366. Bake Pkwy. & Rockfield Blvd.	Irvine	LFTM	X		X	
Ramps						
I-5 NB Off-Ramp to Jamboree Rd.	Caltrans	NITM-FS			X	
Mainline (Directional Segments)						
I-5 Northbound, n/o Culver	Caltrans	--	X		X	
I-5 Northbound, n/o Jeffrey	Caltrans	--	X		X	
I-405 Northbound, n/o Jeffrey	Caltrans	--	X	X	X	X

¹ NITM-FS = NITM Fair Share funded, NITM = NITM Fully Funded

² NITM, should the NITM Program be modified to include the potential improvement, otherwise no existing funding source.

³ Although Post-2030 funding of this improvement has been identified, the 2012 Modified Project impact occurs in 2030. Fair share responsibility for the PA40/12 identified mitigation.

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

U:\UcJobs\07100-07500_07100\07151\Project 2012 GPAZC\High School Location Alternative\[HS Alt Tables.xls]29

Table 30

**2012 Modified Project Option 2 plus Pending Projects, HS Alternative
Mainline, Intersection and Ramp Impact Locations**

Location	Jursidiction	Existing Funding Source ¹	2012 Modified Project Option 2, with Pending Projects		2012 Modified Project Option 2 - HS Alternative, with Pending Projects	
			2030	Post-2030	2030	Post-2030
Intersections						
16. Newport Ave. & Irvine Blvd.	Tustin	--			X	X
54. Browning Ave. & Irvine Blvd.	County/Tustin	--	X		X	
228. Culver & Barranca	Irvine	NITM-FS	X			
286. Jeffrey Rd. & Roosevelt	Irvine	--		X		X
290. Jeffrey Rd. & Barranca	Irvine	NITM-FS/PA9C	X		X	
291. Jeffrey Rd. & Alton Pkwy/	Irvine	--		X	X	X
303. Sand Canyon Ave. & I-5 NB Ramps	Irvine	--	X		X	
366. Bake Pkwy. & Rockfield Blvd.	Irvine	LFTM	X		X	
417. El Toro Rd. & Portola Pw.	Lake Forest	LFTM	X		X	
Ramps						
I-5 NB Off-Ramp to Jamboree Rd.	Caltrans	NITM-FS	X	X	X	X
Mainline (Directional Segments)						
I-5 Northbound, n/o Culver	Caltrans	--	X		X	

¹ NITM-FS = NITM Fair Share funded, NITM = NITM Fully Funded

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

U:\UcJobs\07100-07500_07100\07151\Project 2012 GPAZC\High School Location Alternative\[HS Alt Tables.xls]30

Table 31

2012 Modified Project HS Alternative - Option 2
Summary of Off-Site Mitigation Measures

Location	Improvement	Impact Scenarios ¹
Intersections		
16. Newport Ave. & Irvine Blvd.	Signal modification - northbound right turn overlap phase	2030, 2030 Pending, and Post-2030 Pending (2030 Pending and Post-2030 Pending are not impacted in Project 2012 GPA/ZC Traffic Impact Analysis)
54. Browning Ave. & Irvine Blvd.	Apply ATMS, subject to City of Tustin approval	2030, 2030 Pending
221. Culver Dr. & Bryan Ave.	Add westbound defacto right turn lane	2030
228. Culver Dr. & Barranca Pkwy.	Convert westbound defacto right turn lane to through lane	2030 (2030 Pending is impacted in Project 2012 GPA/ZC Traffic Impact Analysis)
286. Jeffrey Rd. & Roosevelt	Convert the eastbound shared through/right lane into a through lane, and add a second right turn lane	Post-2030, Post-2030 Pending
290. Jeffrey Rd. & Barranca Pkwy.	Apply ATMS	2030, 2030 Pending
291. Jeffrey Rd. & Alton Pkwy.	Provision of an eastbound standard right-turn lane with right-turn overlap phase resulting in an ultimate eastbound lane configuration of 2 left-turn lanes, 2 through lanes, and 1 right-turn lane.	2030, Post-2030, 2030 Pending, Post-2030 Pending (2030 and 2030 Pending are not impacted in Project 2012 GPA/ZC Traffic Impact Analysis)
303. Sand Canyon Ave. & I-5 NB Ramp/Marine Way	Add 2nd EB through lane resulting in 2 left-turn lanes, 2 through lanes, and 1 right-turn lane. Convert northbound defacto right turn lane to a standard right turn lane with right turn overlap signal operation.	2030, 2030 Pending
306. Sand Canyon Ave. & Oak Canyon	Convert westbound shared through/right lane to a single through lane, and convert westbound right turn lane into free right turn lane	2030
321. Laguna Canyon & Old Laguna Canyon	Apply ATMS subject to approval by the Director of Public Works. Alternate improvement - Add fourth northbound through lane.	Post-2030

Table 31 (Cont.)

**2012 Modified Project HS Alternative - Option 2
Summary of Off-Site Mitigation Measures**

Location	Improvement	Impact Scenarios ¹
Intersections (Cont.)		
366. Bake Pkwy. & Rockfield Blvd.	Convert westbound through lane to 3rd left turn lane	2030, 2030 Pending
417. El Toro Rd. & Portola Pkwy.	Add southbound right turn overlap phase	2030 Pending
Ramps		
I-5 NB Off-Ramp to Jamboree Rd.	Add a second drop lane from the I-5 to the off-ramp	2030, 2030 Pending, Post-2030 Pending (2030 not impacted in Project 2012 GPA/ZC Traffic Impact Analysis)
Mainline (Directional Segments)		
I-5 Northbound, n/o Culver	Participate in a directional capacity enhancement equivalent to a single general purpose lane	2030, 2030 Pending
I-5 Northbound, n/o Jeffrey	Participate in a directional capacity enhancement equivalent to a single general purpose lane	2030
I-405 Northbound, n/o Jeffrey	Participate in a directional capacity enhancement equivalent to a single general purpose lane	2030, Post-2030

¹ All impact scenarios listed are for Option 2, which is the focus of this sensitivity analysis.

Heritage Fields Project 2012 GPA/ZC Traffic Study

City of Irvine, CA (JN:07151-12.1 Report Tables)

U:\UCJobs\07100-07500\07100\07151\Project 2012 GPAZC\High School Location Alternative\[HS Alt Tables.xls]31