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| FTIP ID # ORA131105 |
| TCWG Consideration Date August 28, 2018 |
| Project Description The Orange County Transportation Authority (OCTA), in cooperation with the California Department of Transportation (Caltrans) proposes to improve the Interstate 5 (I-5)/El Toro Interchange. The proposed project alternatives would reduce congestion and improve operational efficiency at the interchange on and off-ramp intersections and the surrounding arterial streets. The project will study a no build and four build alternatives. The build alternatives focus primarily on redistributing the southbound I-5 off-ramp traffic by adding alternatives to by-pass local arterial intersections that separate eastbound and westbound El Toro Road traffic. |
| Build Alternative 1: Intersection Modification Alternative 1 proposes a new intersection (L type) at the existing southbound (SB) I-5 hook-offramp between Avenida de la Carlota and Paseo de Valencia; and the existing SB I-5 hook-onramp will be realigned to a loop-ramp. Portion of Avenida de la Carlota would be reconstructed. This work will also require modification to existing drainage culverts and relocation of any utilities in conflict with the proposed work. The existing northbound (NB) I-5 on-ramp will be replaced with a proposed NB I-5 on-ramp from Bridger Road; and Bridger Road will be reconstructed to accommodate the proposed NB I-5 on-ramp, and a continuous median left turn lane will also be proposed for local business to access from Bridger Road. Temporary construction easements will be required for the project. In addition, ground disturbance and the removal of vegetation and trees will be required. Retaining walls/sound walls will be constructed as necessary. The construction of the proposed project will require traffic and pedestrian detours. |
| Build Alternative 2: Flyover Alternative 2 proposes a flyover structure that directly connects the SB I-5 to eastbound (EB) El Toro Road by traversing over the existing SB I-5 hook off-ramp and the existing NB I-5 mainline, and connecting to Bridger Road. The existing SB I-5 hook off-ramp will be realigned to provide access to westbound (WB) El Toro Road and for the proposed SB I-5 flyover off-ramp to Bridger Road. Bridger Road will also be reconstructed to accommodate the proposed NB I-5 on-ramp and the proposed SB I-5 flyover off-ramp. Business access through Bridger Road will be eliminated. Existing NB I-5 on-ramp will be replaced with a proposed NB I-5 on-ramp from Bridger Road. A new alignment for the proposed NB I-5 on-ramp from Bridger Road is required. Portion of Avenida de la Carlota will also be reconstructed. This work will also require modification to existing drainage culverts and relocation of any utilities in conflict with the proposed work. There will be retaining walls/sound walls constructed as necessary. The construction of the proposed project will require traffic and pedestrian detours, equipment staging areas, right-of-way acquisition including temporary easements, as well as ground disturbance and the removal of vegetation and trees. |

Build Alternative 3: Diverging Diamond Interchange

Alternative 3 proposes to reconfigure the I-5/EI Toro Road Interchange to a Diverging Diamond Interchange (DDI), where traffic on EI Toro Road will be shifted to the left side of the road between the signalized crossover intersections. Construction will include reconfiguring all four quadrants of the interchange and constructing a bridge tunnel at the new proposed SB off-ramp to EB EI Toro Road. Existing NB I-5 on-ramp from EI Toro Road will be modified for EB EI Toro Road traffic to NB I-5. A new NB I-5 onramp from Bridge Road will also be proposed. Bridger Road will be reconstructed to accommodate the proposed NB I-5 on ramp, and a continuous median left turn lane will also be proposed for local business to access from Bridger Road (same as Alternative 1) . Existing NB I-5 loop on-ramp will be eliminated. Existing NB I-5 off-ramp and existing SB I-5 hook on-ramp will be reconstructed. Modifications to Avenida De La Carlota will also be required. This work will also require modification to existing drainage culverts and relocation of any utilities in conflict with the proposed improvements. Retaining walls/sound walls will be recommended as necessary. The construction of the proposed project will require traffic and pedestrian detours, equipment staging areas, right-of-way acquisition including temporary easements, as well as ground disturbance and the removal of vegetation and trees.

Build Alternative 4: Southbound Collector Distributor and Hook Ramps

Alternative 4 proposes a new hook style (type L-6) interchange with proposed on- and off- ramps to Avenida de la Carlota, which will utilize the Laguna Hills Mall parking area along with a new signalized intersection. This alternative also proposes a SB collector distributor (CD) system beginning at the existing SB off-ramp to EI Toro Road and ending at Los Alisos Boulevard Overcrossing. Existing EI Toro Road Undercrossing Bridge will be widened, and the existing SB hook on- and off-ramps from Avenida de la Carlota adjacent to Laguna Hills Mall will be realigned in order to accommodate the proposed CD road and the proposed SB I-5 hook on- and off-ramps south of EI Toro Road. The existing SB I-5 on-ramp at EI Toro Road will be eliminated. The existing NB I-5 on-ramp from WB EI Toro Road will be realigned and extended to connect to the existing auxiliary lane. The existing NB I-5 loop on-ramp from EB EI Toro Road will also be extended to connect to the existing auxiliary lane. Bridger Road Cul de sac will be modified to accommodate the extension of NB I-5 onramp from WB EI Toro Road. The improvement will also require modification to existing drainage culverts and relocation of any utilities in conflict with the proposed work. There will be retaining walls/sound walls constructed as necessary. The construction of the proposed project will require traffic and pedestrian detours, equipment staging areas, right-of-way acquisition including temporary easements, as well as ground disturbance and the removal of vegetation and trees.

Alternative 5: No Build Alternative

The No Build Alternative functions as the baseline and would leave the interchange in its current planned configuration as proposed as part of the I-5 Widening Project (EA 0K020). The I-5 Widening Project proposes to add general purpose lanes in each direction on I-5 between Avery Parkway and Alicia Parkway and extend the second high-occupancy vehicle (HOV) lane from Alicia Parkway to EI Toro Road. The project limits on I-5 extend from 0.5 miles south of SR-73 interchange (PM 12.4) to 0.2 miles north of the EI Toro Road Undercrossing (PM 18.9), reestablish existing auxiliary lanes and construct new auxiliary lanes, and improve several existing on- and off-ramps. Additionally, the project proposes no HOV buffer, which will accommodate continuous access to the HOV lanes throughout the project limits (approximately 6 miles). The I-5 Widening Project is in the design phase.

| | | | | |
|---|-------------------------|---|---------------------------|--|
| Type of Project Reconfigure existing interchange | | | | |
| County Orange | | Narrative Location/Route & Postmiles 12-ORA-005-PM 18.1/19.7 | | |
| Caltrans Projects – EA# OM980 | | | | |
| Lead Agency: Caltrans District 12/Orange County Transportation Authority (OCTA) | | | | |
| Contact Person Rabindra Bade | | Phone# 657-328-6573 | Fax# | Email Rabindra.Bade@dot.ca.gov |
| Hot Spot Pollutant of Concern (<i>check one or both</i>) PM2.5 X PM10 X | | | | |
| Federal Action for which Project-Level PM Conformity is Needed (<i>check appropriate box</i>) | | | | |
| Categorical Exclusion (NEPA) | X | EA or Draft EIS | FONSI or Final EIS | PS&E or Construction |
| | | | | Other |
| Scheduled Date of Federal Action: 2018 | | | | |
| NEPA Assignment – Project Type (<i>check appropriate box</i>) | | | | |
| Exempt | | Section 326 –Categorical Exemption | X | Section 327 – Non-Categorical Exemption |
| Current Programming Dates (<i>as appropriate</i>) | | | | |
| | PE/Environmental | ENG | ROW | CON |
| Start | 2016 | 2017 | 2017 | 2020 |
| End | 2019 | 2021 | 2022 | 2023 |
| Project Purpose and Need (Summary): | | | | |
| <p>Purpose: The proposed improvements will improve existing and future regional mobility and traffic flow to and from the local street network, be consistent with local planning, and consider impacts to Right of Way. In addition, congestion relief on the mainline ramps and local streets will serve to improve vehicle safety by improving mobility. The purpose of the project is to:</p> <ul style="list-style-type: none"> • Improve traffic flow and traffic signal optimization; • reduce traffic congestion at and through adjacent local street intersections; • and reduce freeway ramp queuing <p>:Need: The area within the I-5/EI Toro Road Interchange experiences:</p> <ul style="list-style-type: none"> • heavy peak-hour congestion and traffic delays due to the high traffic volumes and chokepoints • geometric deficiencies related to inadequate signal operations (or signal queueing distances) • major delays due to traffic queueing at the intersections of the on- and off-ramps and local streets <p>This has affected both the traffic operations and safety within the project area. The project is needed because off- and on-ramps adjacent to I-5 are experiencing congestion and delays, and traffic demand is forecast to increase. Under existing conditions, the EI Toro Road, Bridger Road, Avenida de la Carlota, and Paseo de Valencia / I-5 northbound (NB) and southbound (SB) ramps operate at level of service (LOS) D, E, or F in the morning (AM) or evening (PM) peak hour. Under Opening Year baseline conditions, these intersections would operate at LOS F in both the AM and PM peak hours. Under Build-Out Year baseline conditions, local intersections would all operate at LOS D or worse. The OCTA considers LOS C to be the minimum acceptable level of service.</p> | | | | |

Surrounding Land Use/Traffic Generators

Interstate 5 is a major north-south route connecting employment centers in Orange County to the North with residential areas to the east, west and south. El Toro Road is a thoroughfare providing access to I-5 from commercial and residential areas adjacent to the freeway. These routes are heavily used for commuting during weekday peak periods. Heavy trucks represent about 3.4 to 3.6 percent of vehicle volumes, based on recent Caltrans data.

Land uses near the I-5/El Toro Road Interchange are primarily urban commercial and residential developments. The residential development generates mostly automobile traffic, while the commercial development generates a mixture of automobile and truck traffic.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

See attached analysis – Tables 2, 4, 6, 8, and 10.

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

See attached analysis – Tables 3, 5, 7, 9, and 11.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

See attached analysis – Table 12

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

See attached analysis – Table 13

Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)

The proposed improvements will improve existing and future regional mobility and traffic flow to and from the local street network, be consistent with local planning, and consider impacts to Right of Way. In addition, congestion relief on the mainline ramps and local streets will serve to improve vehicle safety by improving mobility.

Comments/Explanation/Details *(attach additional sheets as necessary)*

PM2.5/PM10 Hot-Spot Analysis

The I-5/EI Toro Road Interchange project is located within a nonattainment area for federal PM2.5 standards and within an attainment/maintenance area for the federal PM10 standards. Therefore, per 40 CFR Part 93 hot-spot analyses are required for conformity purposes. However, the EPA does not require hot-spot analyses, qualitative or quantitative, for projects that are not listed in section 93.123(b)(1) as an air quality concern.

According to 40 CFR Part 93.123(b)(1), the following are Projects of Air Quality Concern (POAQC) :

- i. New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
- ii. Projects affecting intersections that are at a Level of Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level of Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
- iii. New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- iv. Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
- v. Projects in or affecting locations, areas or categories of sites which are identified in the PM2.5 and PM10 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

The project does not qualify as a Project of Air Quality Concern (POAQC) because of the following reasons:

- i. The proposed Project is not a new or expanded highway project. The proposed Project would reduce traffic congestion at and through adjacent local street intersections, and reduce freeway ramp queuing without increasing capacity. However, in addition to realigning I-5/EI Toro Road Interchange, the Project will slightly alter the traffic flow on local streets within the project area. As shown in the attached tables, the proposed Project would increase the traffic volumes along multiple roads within the Project limits. While the number of diesel trucks would increase along these roadways, the future with project volumes would not exceed the 10,000 average daily truck trip criteria for a POAQC.
- ii. The LOS conditions in the project vicinity with and without the proposed project are shown in Tables 12 and 13. As shown, I-5/EI Toro Road Interchange Project would result in a small decrease in the level of service (LOS) at several intersections within the Project limits. However, as discussed above, the Project would not result in a significant increase in the number of diesel vehicles in the Project limits.
- iii. The proposed build alternatives do not include the construction of a new bus or rail terminal.
- iv. The proposed build alternatives do not expand an existing bus or rail terminal.
- v. The proposed build alternatives are not in or affecting locations, areas, or categories of sites that are identified in the PM2.5 and PM10 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Therefore, the proposed Project meets the CAA requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The proposed Project would not create a new, or worsen an existing, PM10 or PM2.5 violation.

ATTACHMENTS for FTIP ID # ORA131105

The annual average daily traffic (AADT) on the I-5 mainline through the El Toro interchange has been fairly consistent over the past 5 years (within 1%) with an AADT average of 354,900.

The freeway on and off ramps included in the study area are listed below:

Northbound I-5:

- El Toro NB I-5 off-ramp
- El Toro NB I-5 (Loop) on-ramp from EB El Toro Rd
- El Toro NB I-5 on-ramp from WB El Toro Rd

Southbound I-5:

- Lake Forest SB I-5 (Loop) on-ramp from WB Lake Forest Dr
- Lake Forest SB I-5 on-ramp from EB Lake Forest Rd
- El Toro/Avenida De La Carlota SB I-5 Off-Ramp
- El Toro/Avenida De La Carlota SB I-5 (Loop) On-Ramp from WB El Toro Rd/Avenida Carlota
- El Toro SB I-5 on-ramp from EB El Toro Rd

The tables provided below were obtained from the Caltrans Draft Traffic Volumes Report and Draft Traffic Impact Report documents with the existing and future traffic volumes for the I-5 El Toro Interchange Project.

| Scenario | Road Segment | Type | Average Daily Traffic | | |
|---------------------------|---|---------|-----------------------|------------|------------|
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 147,932 | 5,030 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 14,907 | 507 | |
| | El Toro Rd Overcrossing | ML | 125,979 | 4,283 | |
| | El Toro Rd Loop On-Ramp from EB El Toro Rd | Ramp | 17,085 | 580 | |
| | El Toro Rd Tangent On-Ramp from WB El Toro Rd | Ramp | 16,752 | 570 | |
| | El Toro to Lake Forest Dr | ML | 166,703 | 5,668 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 140,011 | 5,040 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 12,920 | 465 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 13,911 | 500 | |
| | Lake Forest Dr to El Toro Rd | ML | 168,090 | 6,051 | |
| | El Toro Rd Off-Ramp | Ramp | 23,368 | 841 | |
| | El Toro Rd @ De La Carlota | ML | 140,689 | 5,065 | |
| | El Toro Rd On Ramp (From De La Carlota) | Ramp | 13,571 | 488 | |
| | El Toro Rd Tangent On Ramp | Ramp | 8,408 | 303 | |
| El Toro Rd to Alicia Pkwy | ML | 167,362 | 6,025 | | |

Source: Caltrans Draft Traffic Volumes Report (March 2018).
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| Scenario No Build | Road Segment | Type | Average Daily Traffic | | |
|-------------------|---|------|-----------------------|------------|------------|
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 159,607 | 5,427 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 15,253 | 519 | |
| | El Toro Rd Overcrossing | ML | 133,423 | 4,536 | |
| | El Toro Rd Loop On-Ramp from EB El Toro Rd | Ramp | 17,341 | 590 | |
| | El Toro Rd Tangent On-Ramp from WB El Toro Rd | Ramp | 16,877 | 574 | |
| | El Toro to Lake Forest Dr | ML | 174,945 | 5,948 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 149,468 | 5,381 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 13,217 | 476 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 14,231 | 512 | |
| | Lake Forest Dr to El Toro Rd | ML | 177,688 | 6,397 | |
| | El Toro Rd Off-Ramp | Ramp | 23,913 | 861 | |
| | El Toro Rd @ De La Carlota | ML | 149,742 | 5,391 | |
| | El Toro Rd On Ramp (From De La Carlota) | Ramp | 14,156 | 510 | |
| | El Toro Rd Tangent On Ramp | Ramp | 8,438 | 304 | |
| | El Toro Rd to Alicia Pkwy | ML | 177,094 | 6,375 | |

Source: Caltrans Draft Traffic Volumes Report (March 2018).
EA 0M980 Project Number 1213000084 – PPNO 2708

| Scenario No Build | Road Segment | Type | Average Daily Traffic | | |
|-------------------|---|------|-----------------------|------------|------------|
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 167,415 | 5,692 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 15,785 | 537 | |
| | El Toro Rd Overcrossing | ML | 144,875 | 4,926 | |
| | El Toro Rd Loop On-Ramp from EB El Toro Rd | Ramp | 17,734 | 603 | |
| | El Toro Rd Tangent On-Ramp from WB El Toro Rd | Ramp | 17,069 | 580 | |
| | El Toro to Lake Forest Dr | ML | 187,625 | 6,379 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 167,017 | 6,013 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 13,566 | 488 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 14,607 | 526 | |
| | Lake Forest Dr to El Toro Rd | ML | 192,229 | 6,920 | |
| | El Toro Rd Off-Ramp | Ramp | 24,751 | 891 | |
| | El Toro Rd @ De La Carlota | ML | 163,445 | 5,884 | |
| | El Toro Rd On Ramp (From De La Carlota) | Ramp | 15,079 | 543 | |
| | El Toro Rd Tangent On Ramp | Ramp | 8,483 | 305 | |
| | El Toro Rd to Alicia Pkwy | ML | 191,841 | 6,906 | |

Source: Caltrans Draft Traffic Volumes Report (March 2018).
EA 0M980 Project Number 1213000084 – PPNO 2708

| Table 4: Opening Year 2030 Alternative 1 ADTs for I-5 General Purpose Mainline and Ramps | | | | | |
|---|--|-------------|------------------------------|-------------------|-------------------|
| Scenario Build Alt 1 | Road Segment | Type | Average Daily Traffic | | |
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 155,607 | 5,291 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 15,253 | 519 | |
| | El Toro Rd Overcrossing | ML | 133,423 | 4,536 | |
| | El Toro Rd Loop On-Ramp from EB El Toro Rd | Ramp | 17,341 | 590 | |
| | El Toro Rd Tangent On-Ramp from WB El Toro Rd | Ramp | 16,877 | 574 | |
| | El Toro to Lake Forest Dr | ML | 174,945 | 5,948 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 149,468 | 5,381 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 13,217 | 476 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 14,231 | 512 | |
| | Lake Forest Dr to El Toro Rd | ML | 177,688 | 6,397 | |
| | El Toro Rd Off-Ramp | Ramp | 23,913 | 861 | |
| | El Toro Rd @ De La Carlota | ML | 149,742 | 5,391 | |
| | El Toro Rd On Ramp (From De La Carlota) | Ramp | 9,351 | 337 | |
| | El Toro Rd Tangent On Ramp | Ramp | 13,252 | 477 | |
| | El Toro Rd to Alicia Pkwy | ML | 177,094 | 6,375 | |

Source: Caltrans Draft Traffic Volumes Report (March 2018).
EA 0M980 Project Number 1213000084 – PPNO 2708

| Table 5: Design Year 2050 Alternative 1 ADTs for I-5 General Purpose Mainline and Ramps | | | | | |
|--|--|-------------|------------------------------|-------------------|-------------------|
| Scenario Build Alt 1 | Road Segment | Type | Average Daily Traffic | | |
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 167,415 | 5,692 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 15,785 | 537 | |
| | El Toro Rd Overcrossing | ML | 144,875 | 4,926 | |
| | El Toro Rd Loop On-Ramp from EB El Toro Rd | Ramp | 17,734 | 603 | |
| | El Toro Rd Tangent On-Ramp from WB El Toro Rd | Ramp | 17,069 | 580 | |
| | El Toro to Lake Forest Dr | ML | 187,625 | 6,379 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 164,017 | 5,905 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 13,566 | 488 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 14,607 | 526 | |
| | Lake Forest Dr to El Toro Rd | ML | 192,229 | 6,920 | |
| | El Toro Rd Off-Ramp | Ramp | 24,751 | 891 | |
| | El Toro Rd @ De La Carlota | ML | 163,445 | 5,884 | |
| | El Toro Rd On Ramp (From De La Carlota) | Ramp | 9,748 | 351 | |
| | El Toro Rd Tangent On Ramp | Ramp | 13,814 | 497 | |
| | El Toro Rd to Alicia Pkwy | ML | 191,841 | 6,906 | |

Source: Caltrans Draft Traffic Volumes Report (March 2018).
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| Scenario Build Alt 2 | Road Segment | Type | Average Daily Traffic | | |
|-------------------------|--|------|-----------------------|------------|------------|
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 155,607 | 5,291 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 15,253 | 519 | |
| | El Toro Rd Overcrossing | ML | 133,423 | 4,536 | |
| | El Toro Rd Loop On-Ramp from EB El Toro Rd | Ramp | 17,341 | 590 | |
| | El Toro Rd Tangent On-Ramp from WB El Toro Rd | Ramp | 16,877 | 574 | |
| | El Toro to Lake Forest Dr | ML | 174,945 | 5,948 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 149,468 | 5,381 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 13,217 | 476 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 14,231 | 512 | |
| | Lake Forest Dr to El Toro Rd | ML | 177,688 | 6,397 | |
| | El Toro Rd Off-Ramp (WB) | Ramp | 14,348 | 517 | |
| | El Toro Rd Flyover Off-Ramp (EB) | Ramp | 9,565 | 344 | |
| | El Toro Rd @ De La Carlota | ML | 149,742 | 5,391 | |
| | El Toro Rd On Ramp (From De La Carlota) | Ramp | 14,156 | 510 | |
| | El Toro Rd Tangent On Ramp | Ramp | 8,438 | 304 | |
| | El Toro Rd to Alicia Pkwy | ML | 177,094 | 6,375 | |

Source: Caltrans Draft Traffic Volumes Report (March 2018).
EA 0M980 Project Number 1213000084 – PPNO 2708

| Scenario Build Alt 2 | Road Segment | Type | Average Daily Traffic | | |
|-------------------------|--|------|-----------------------|------------|------------|
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 167,415 | 5,692 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 15,785 | 537 | |
| | El Toro Rd Overcrossing | ML | 144,875 | 4,926 | |
| | El Toro Rd Loop On-Ramp from EB El Toro Rd | Ramp | 17,734 | 603 | |
| | El Toro Rd Tangent On-Ramp from WB El Toro Rd | Ramp | 17,069 | 580 | |
| | El Toro to Lake Forest Dr | ML | 187,625 | 6,379 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 164,017 | 5,905 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 13,566 | 488 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 14,607 | 526 | |
| | Lake Forest Dr to El Toro Rd | ML | 192,229 | 6,920 | |
| | El Toro Rd Off-Ramp | Ramp | 14,851 | 535 | |
| | El Toro Rd Proposed Flyover Off-Ramp | Ramp | 9,900 | 356 | |
| | El Toro Rd @ De La Carlota | ML | 163,445 | 5,884 | |
| | El Toro Rd On Ramp (From De La Carlota) | Ramp | 15,079 | 543 | |
| | El Toro Rd Tangent On Ramp | Ramp | 8,483 | 305 | |
| | El Toro Rd to Alicia Pkwy | ML | 191,841 | 6,906 | |

Source: Caltrans Draft Traffic Volumes Report (March 2018).
EA 0M980 Project Number 1213000084 – PPNO 2708

| Scenario Build Alt 3 | Road Segment | Type | Average Daily Traffic | | |
|---------------------------|--|---------|-----------------------|------------|------------|
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 155,607 | 5,291 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 15,253 | 519 | |
| | El Toro Rd Overcrossing | ML | 133,423 | 4,536 | |
| | El Toro Rd Loop On-Ramp from WB El Toro Rd | Ramp | 16,877 | 574 | |
| | El Toro Rd Tangent On-Ramp from EB El Toro Rd | Ramp | 17,341 | 590 | |
| | El Toro to Lake Forest Dr | ML | 174,945 | 5,948 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 149,468 | 5,381 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 13,217 | 476 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 14,231 | 512 | |
| | Lake Forest Dr to El Toro Rd | ML | 177,688 | 6,397 | |
| | El Toro Rd Off-Ramp | Ramp | 14,347 | 516 | |
| | El Toro Tangent EB off-Ramp to El Toro R | Ramp | 9,566 | 344 | |
| | El Toro Rd @ De La Carlota | ML | 149,742 | 5,391 | |
| | El Toro Rd On Ramp (From De La Carlota) | Ramp | 9,873 | 355 | |
| | El Toro Rd Tangent On Ramp | Ramp | 14,230 | 512 | |
| El Toro Rd to Alicia Pkwy | ML | 177,094 | 6,375 | | |

Source: Caltrans Draft Traffic Volumes Report (March 2018).
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| Scenario Build Alt 3 | Road Segment | Type | Average Daily Traffic | | |
|---------------------------|--|---------|-----------------------|------------|------------|
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 167,415 | 5,692 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 15,785 | 537 | |
| | El Toro Rd Overcrossing | ML | 144,875 | 4,926 | |
| | El Toro Rd Loop On-Ramp from EB El Toro Rd | Ramp | 17,734 | 603 | |
| | El Toro Rd Tangent On-Ramp from WB El Toro Rd | Ramp | 17,069 | 580 | |
| | El Toro to Lake Forest Dr | ML | 187,625 | 6,379 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 164,017 | 5,905 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 13,566 | 488 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 14,607 | 526 | |
| | Lake Forest Dr to El Toro Rd | ML | 192,229 | 6,920 | |
| | El Toro Rd WB Off-Ramp to De La Carlota | Ramp | 14,722 | 530 | |
| | El Toro Tangent EB Off-Ramp to El Toro R | Ramp | 10,029 | 361 | |
| | El Toro Rd @ De La Carlota | ML | 163,445 | 5,884 | |
| | El Toro Rd On Ramp (From De La Carlota) | Ramp | 8,729 | 314 | |
| | El Toro Rd Tangent On Ramp | Ramp | 14,834 | 534 | |
| El Toro Rd to Alicia Pkwy | ML | 191,841 | 6,906 | | |

Source: Caltrans Draft Traffic Volumes Report (March 2018).
EA 0M980 Project Number 1213000084 – PPNO 2708

| Scenario Build Alt 4 | Road Segment | Type | Average Daily Traffic | | |
|------------------------------|--|---------|-----------------------|------------|------------|
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 154,658 | 5,258 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 15,253 | 519 | |
| | El Toro Rd Overcrossing | ML | 133,423 | 4,536 | |
| | El Toro Rd Loop On-Ramp from EB El Toro Rd | Ramp | 17,341 | 590 | |
| | El Toro Rd Tangent On-Ramp from WB El Toro Rd | Ramp | 16,877 | 574 | |
| | El Toro to Lake Forest Dr | ML | 174,945 | 5,948 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 163,498 | 5,886 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 13,217 | 476 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 14,231 | 512 | |
| | Lake Forest Dr to El Toro Rd | ML | 188,472 | 6,785 | |
| | El Toro Rd Off-Ramp | Ramp | 15,956 | 574 | |
| | El Toro Rd @ Valencia/De La Carlota | ML | 168,922 | 6,081 | |
| | El Toro Rd On Ramp (From Valencia) | Ramp | 14,465 | 521 | |
| | El Toro Rd Tangent On Ramp | Ramp | 5,452 | 196 | |
| | El Toro Rd to De La Carlota | ML | 172,123 | 6,196 | |
| | De La Carlota Off-Ramp (south of El Toro) | Ramp | 7,957 | 286 | |
| | De La Carlota On Ramp (south of El Toro) | Ramp | 2,800 | 101 | |
| De La Carlota to Alicia Pkwy | ML | 177,094 | 6,375 | | |

Source: Caltrans Draft Traffic Study Report (August 2018).
EA 0M980 Project Number 1213000084 – PPNO 2708

| Scenario Build Alt 4 | Road Segment | Type | Average Daily Traffic | | |
|------------------------------|--|---------|-----------------------|------------|------------|
| | | | Total | Trucks (#) | Trucks (%) |
| I-5 Northbound | Alicia Pkwy to El Toro Rd | ML | 167,415 | 5,692 | 3.4 |
| | El Toro Rd Off-Ramp | Ramp | 15,785 | 537 | |
| | El Toro Rd Overcrossing | ML | 144,875 | 4,926 | |
| | El Toro Rd Loop On-Ramp from EB El Toro Rd | Ramp | 17,734 | 603 | |
| | El Toro Rd Tangent On-Ramp from WB El Toro Rd | Ramp | 17,069 | 580 | |
| | El Toro to Lake Forest Dr | ML | 187,625 | 6,379 | |
| I-5 Southbound | Lake Forest Dr Overcrossing | ML | 178,633 | 6,431 | 3.6 |
| | Lake Forest Dr Loop On-Ramp | Ramp | 13,566 | 488 | |
| | Lake Forest Dr Tangent On Ramp | Ramp | 14,607 | 526 | |
| | Lake Forest Dr to El Toro Rd | ML | 203,895 | 7,340 | |
| | El Toro Rd Off-Ramp | Ramp | 16,515 | 595 | |
| | El Toro Rd @ De La Carlota | ML | 184,380 | 5,884 | |
| | El Toro Rd On Ramp (From De La Carlota) | Ramp | 15,079 | 543 | |
| | El Toro Rd Tangent On Ramp | Ramp | 5,683 | 205 | |
| | El Toro Rd to De La Carlota | ML | 197,277 | 7,102 | |
| | De La Carlota Off-Ramp (south of El Toro) | Ramp | 8,236 | 296 | |
| | De La Carlota On Ramp (south of El Toro) | Ramp | 2,986 | 107 | |
| De La Carlota to Alicia Pkwy | ML | 191,841 | 6,906 | | |

A Comparison of Arterial Intersections LOS within the Study Area for each Alternative for Opening Year 2030 and Design Year 2050.

| Table 12: Opening Year 2030 Intersection Level of Service Comparison Between Alternatives | | | | | | | | | | | |
|--|----------------------|---|----|----------------|----|-------|----|-------|----|-------|----|
| Intersection Location | Agency Jurisdiction | 2030 LOS Comparison of Alternatives vs No Build | | | | | | | | | |
| | | No Build | | Alt 1 | | Alt 2 | | Alt 3 | | Alt 4 | |
| | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| Avenida De La Carlota (NS) & Paseo De Valencia / SB Off-ramp (EW) | Caltrans | D | F | Not Applicable | | C | C | B | D | C | C |
| Avenida De La Carlota/SB Offramp (NS) & El Toro Rd (EW) | Caltrans | D | F | D | F | D | C | C | F | C | D |
| Bridger Rd/NB On/Off ramp (NS) & El Toro Rd (EW) | Caltrans | F | E | D | E | E | D | C | E | C | D |
| Rockfield Blvd (NS) & El Toro Rd (EW) | Lake Forest | D | D | D | D | D | D | D | D | D | D |
| Paseo De Valencia (NS) & El Toro Rd (EW) | Laguna Hills / Woods | C | D | C | E | C | D | C | D | C | D |

Source: Caltrans Draft Traffic Study Report (August 2018).
EA 0M980 Project Number 1213000084 – PPNO 2708

As shown in Table 12, each of the study intersections within the Caltrans jurisdiction are expected to operate at a LOS F during either the AM or PM peak hour periods during the 2050 No Build conditions. The intersection of El Toro and Avenida De La Carlota has the highest delay during the PM peak period with the highest volume to capacity of any intersection within the study area. All the intersections within the jurisdiction of the local cities of Lake Forest, Laguna Hills and Laguna Woods are expected to operate at a LOS E or better.

| Table 13: Design Year 2050 Intersection Level of Service Comparison Between Alternatives | | | | | | | | | | | |
|---|----------------------|---|----|----------------|----|-------|----|-------|----|-------|----|
| Intersection Location | Agency Jurisdiction | 2050 LOS Comparison of Alternatives vs No Build | | | | | | | | | |
| | | No Build | | Alt 1 | | Alt 2 | | Alt 3 | | Alt 4 | |
| | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| Avenida De La Carlota (NS) & Paseo De Valencia / SB Off-ramp (EW) | Caltrans | E | F | Not Applicable | | D | C | B | D | C | C |
| Avenida De La Carlota/SB Offramp (NS) & El Toro Rd (EW) | Caltrans | D | F | D | F | D | D | C | F | C | D |
| Bridger Rd/NB On/Off ramp (NS) & El Toro Rd (EW) | Caltrans | F | F | D | E | E | E | E | F | D | D |
| Rockfield Blvd (NS) & El Toro Rd (EW) | Lake Forest | D | E | D | E | E | D | D | E | D | E |
| Paseo De Valencia (NS) & El Toro Rd (EW) | Laguna Hills / Woods | C | D | D | E | C | D | C | D | C | D |

Source: Caltrans Draft Traffic Study Report (August 2018).
EA 0M980 Project Number 1213000084 – PPNO 2708

As shown in Table 13, each of the study intersections within the Caltrans jurisdiction are expected to operate at a LOS F during either the AM or PM peak hour periods during the 2050 No Build conditions, with the intersection of El Toro Road and the NB I-5 Ramps operating at a LOS F during both the 2050 AM and PM peak periods. The intersection of El Toro and Avenida De La Carlota has the highest delay during the PM peak period with the highest volume to capacity of any intersection within the study area. All the intersections within the jurisdiction of the local cities of Lake Forest, Laguna Hills and Laguna Woods are expected to operate at a LOS E or better.

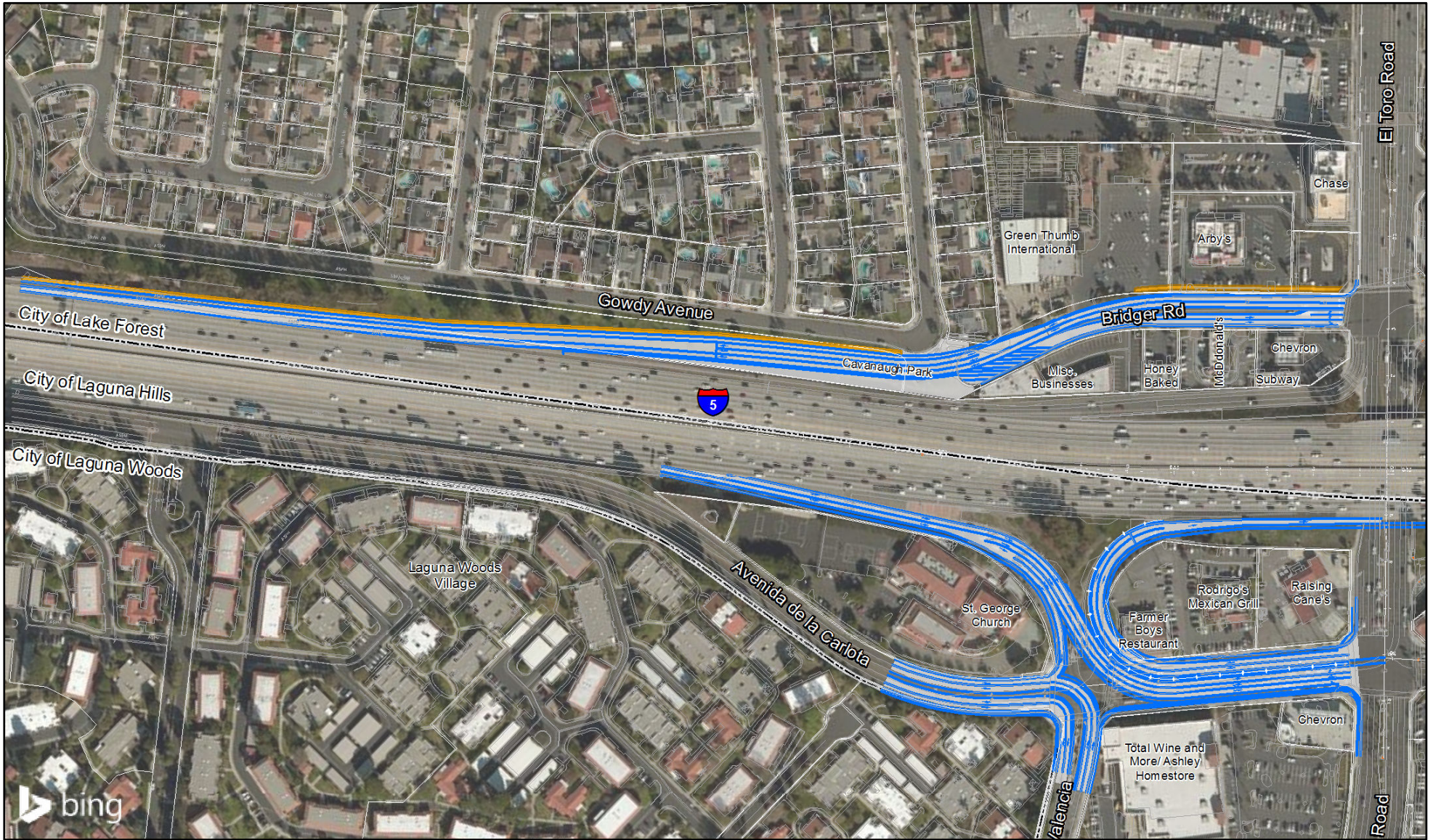
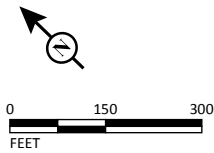


FIGURE 1

LSA

LEGEND

- Alternative 1
- Roadway Construction
- Temporary Construction Easement (TCE)
- Proposed Road Edge/Curb
- Proposed Lane Striping/Marking
- City Boundary



SOURCE: Caltrans (4/3/2018); Bing (1/2015)
 I:\CDT1609\GIS\MXD\Task45_ElToroRd\Proposed Roadway Geometrics - Alternative 1.mxd (8/13/2018)

I-5/El Toro Road Interchange Project
 Proposed Roadway Geometrics - Alternative 1

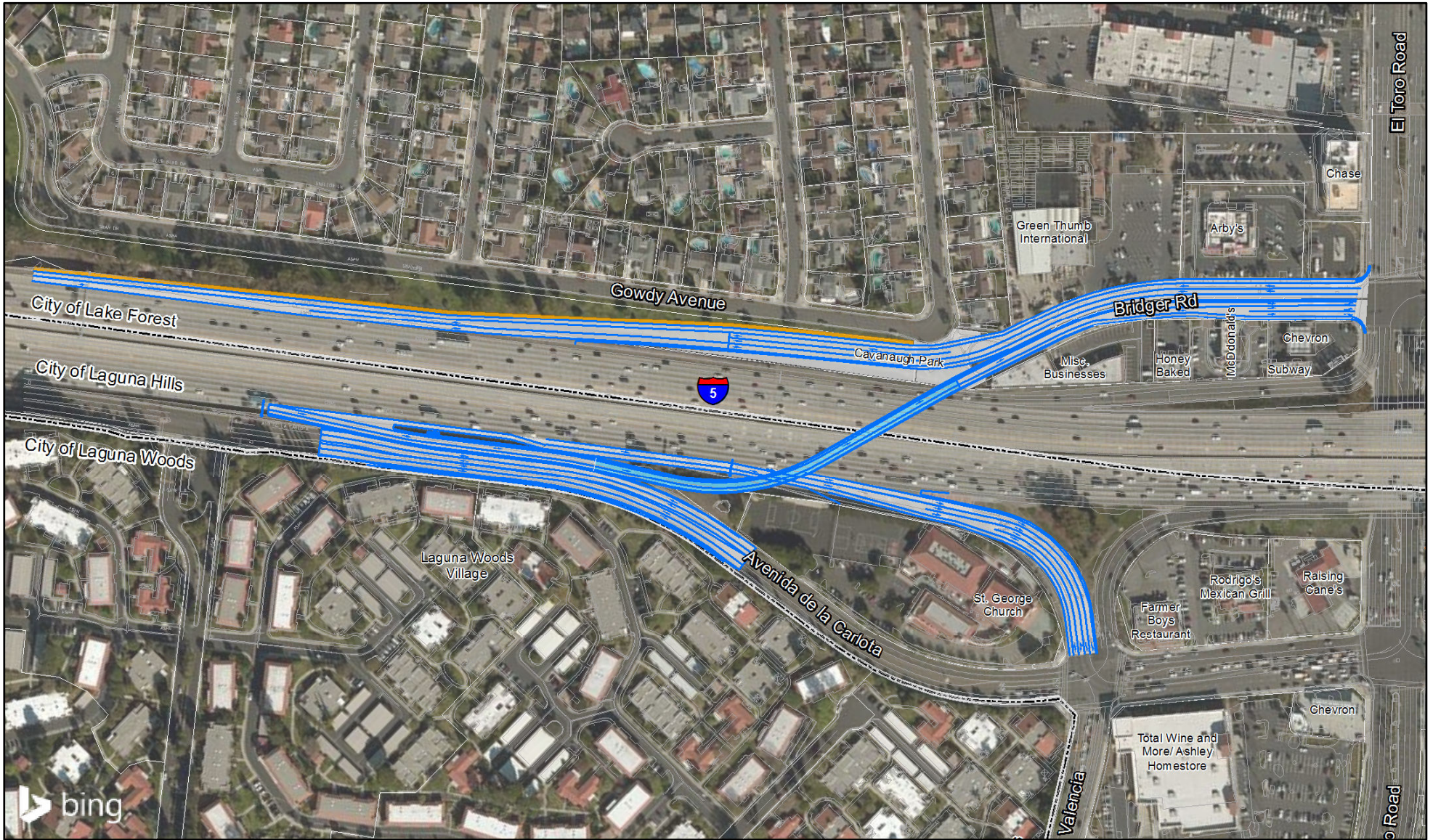


FIGURE 2

LSA

LEGEND

Alternative 2

□ Roadway Construction

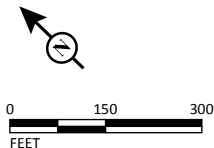
■ Temporary Construction Easement (TCE)

■ Bridge Structure

— Proposed Road Edge/Curb

— Proposed Lane Striping/Marking

- - - City Boundary



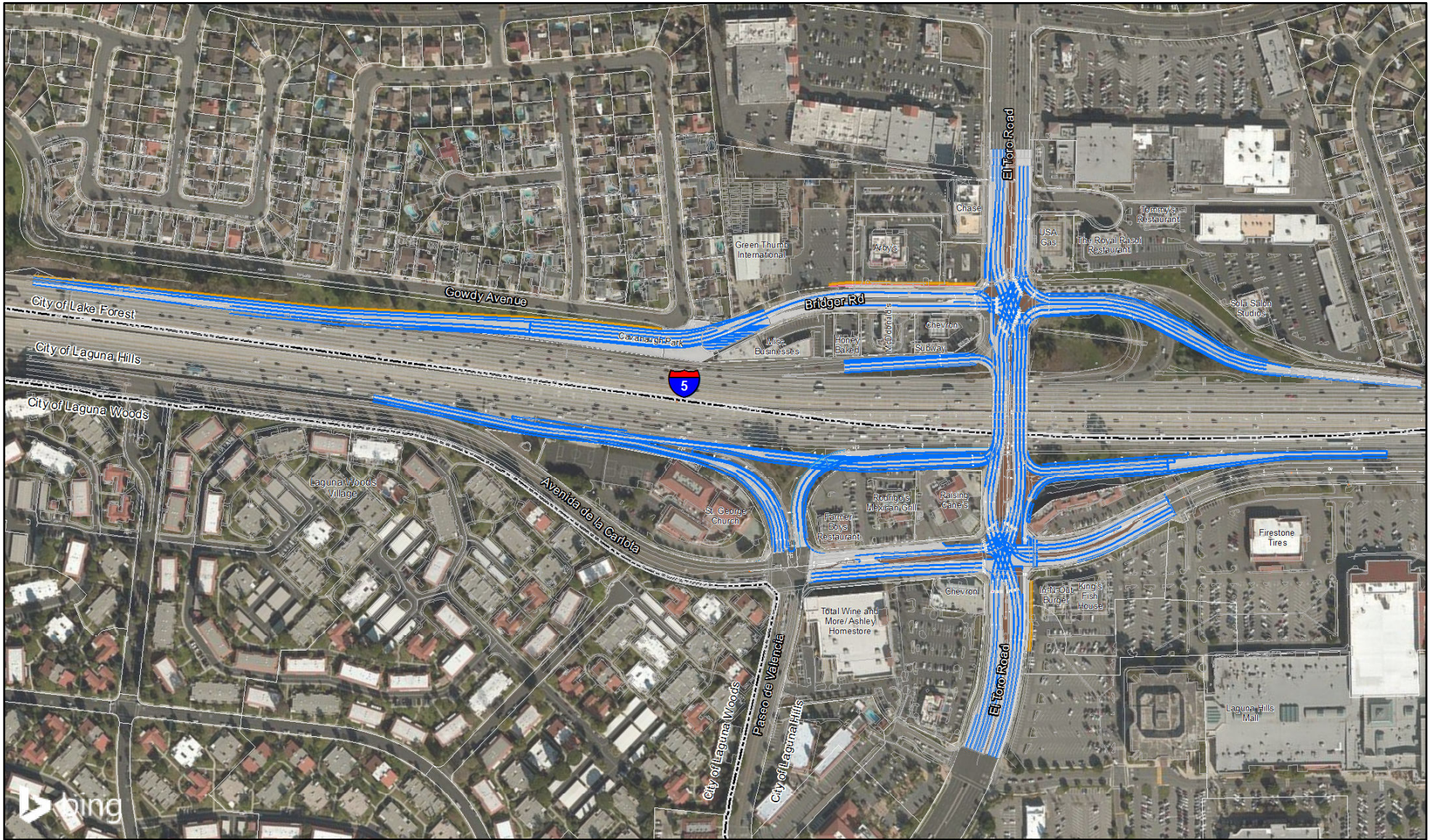


FIGURE 3

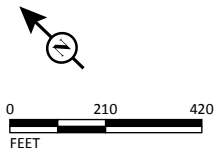
LSA

LEGEND

Alternative 3

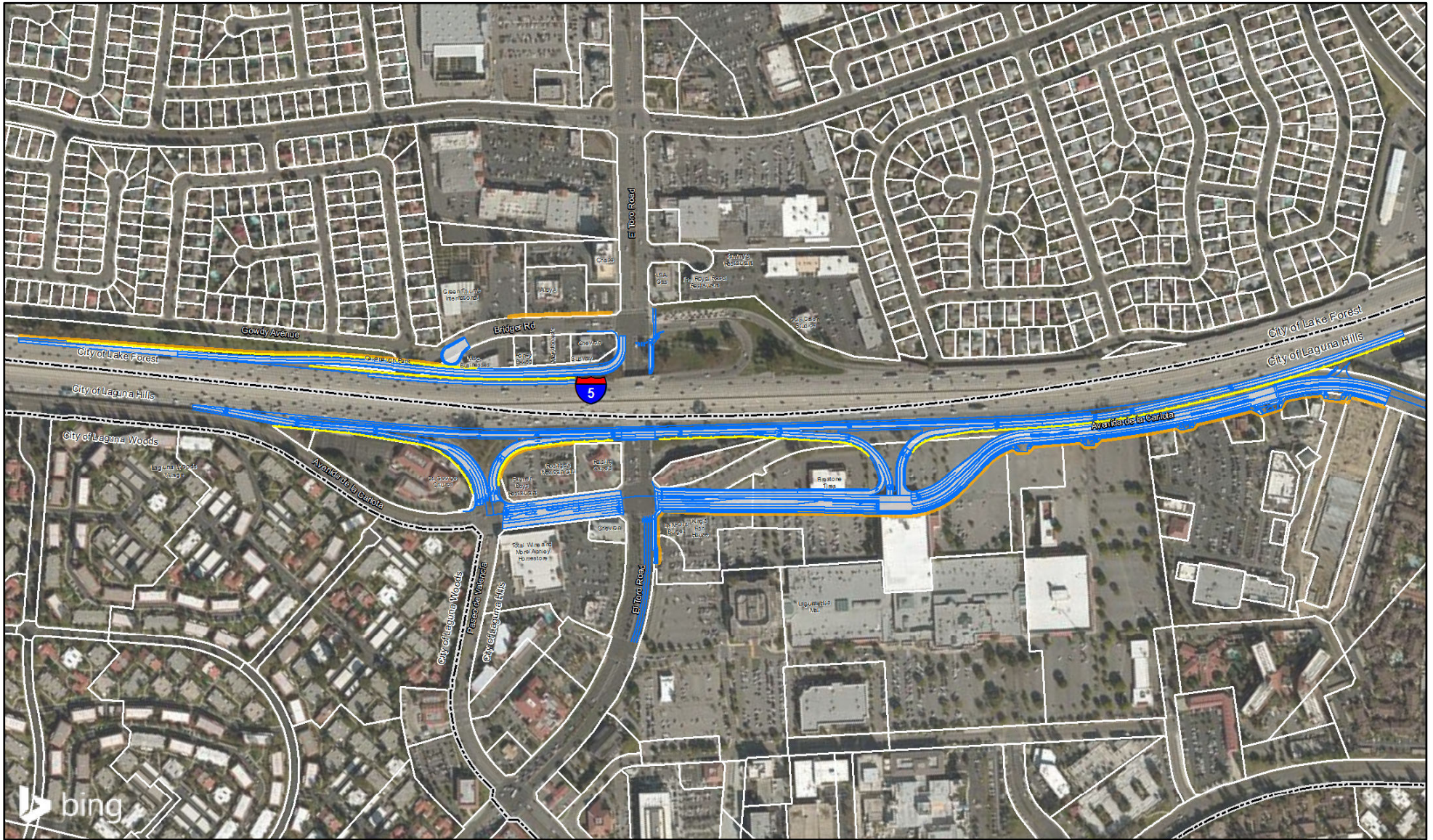
- Median
- Roadway Construction
- Temporary Construction Easement (TCE)
- Bridge Structure

- Proposed Road Edge/Curb
- Proposed Lane Striping/Marking
- City Boundary



SOURCE: Caltrans (4/3/2018); Bing (1/2015)
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I-5/El Toro Road Interchange Project
 Proposed Roadway Geometrics - Alternative 3



LSA

LEGEND

Alternative 4

□ Roadway Construction

■ Temporary Construction Easement (TCE)

— Proposed Road Edge/Curb

— Proposed Lane Striping/Marking

— Proposed Soundwalls

- - - City Boundary



SOURCE: Caltrans (8/1/2018); Bing (1/2015)

I:\CDT1609\GIS\MXD\Task45_EIToroRd\Proposed Roadway Geometrics - Alternative 4.mxd (8/13/2018)

FIGURE 4

I-5/El Toro Road Interchange Project
Proposed Roadway Geometrics - Alternative 4