2.17 Wetlands and Other Waters

2.17.1 Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the United States (WOTUS), including wetlands. WOTUS include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over nontidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/ inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the United States Army Corps of Engineers (USACE) with oversight by the United States Environmental Protection Agency (USEPA).

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with the USEPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations [CFR] Part 230) and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines

(Guidelines) were developed by the USEPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (WOTUS) only if there is no practicable alternative that would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on WOTUS and would not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as the Federal Highway Administration (FHWA) and/or the California Department of Transportation (Caltrans), as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction, and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the State level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs), and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or the Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600–1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities that may result in a discharge to WOTUS. This is most

frequently required in tandem with a Section 404 permit request. Please see Section 2.9, Water Quality and Stormwater Runoff, for more details.

2.17.2 Affected Environment

The information in this section is based on the *Natural Environment Study (Minimal Impact)* (NES[MI]) (April 2023) and the *Jurisdictional Delineation* (April 2023) for the proposed Project. The *Jurisdictional Delineation*, which was conducted in accordance with current USACE and CDFW criteria, is provided in Appendix D of the NES(MI) and is considered preliminary until verified by applicable agencies.

The Jurisdictional Delineation Study Area (JDSA) is located in four watersheds and is equivalent to the Biological Study Area (BSA). The San Gabriel watershed (HUC8 18070106) occurs in the northern portion of the BSA, which encompasses approximately 906 square miles of eastern Los Angeles County and northern Orange County and originates in the San Gabriel Mountains. The San Gabriel River flows approximately 58 miles from its headwaters to the Pacific Ocean.

The Seal Beach watershed (HUC8 18070201) bounds the San Gabriel watershed to the south, encompasses approximately 127 square miles of northern Orange County, and originates in Anaheim. Waters within this watershed flow approximately 15 miles from their origin in Anaheim to the Pacific Ocean.

The Santa Ana watershed (HUC8 18070203) occurs in the central portion of the BSA, which encompasses approximately 1,695 square miles in the far eastern portion of Los Angeles County, the southwestern portion of San Bernardino County, the far western portion of Riverside County, and the northern-central portion of Orange County. It originates in the San Gabriel Mountains to the northwest, the San Bernardino Mountains in the northeast, and the San Gorgonio Mountains to the east. The Santa Ana River (SAR) flows approximately 96 miles from its headwaters in the San Bernardino Mountains to the Pacific Ocean in Newport Beach.

The Newport Bay watershed (HUC8 18070204) occurs in the southern portion of the BSA, which encompasses approximately 194 square miles in the central portion of Orange County and originates in the foothills of the Santa Ana Mountains. Waters within this watershed flow primarily through Peters Canyon Wash, where they travel approximately 15 miles from the watershed's headwaters in the Santa Ana Mountains to the Pacific Ocean. In total, 132 drainages were identified within the BSA (refer to Figures 2.17-1 through 2.17-3). All figures are located at the end of this section.

2.17.2.1 USACE Jurisdictional Areas

Based on the results of the jurisdictional delineation, areas subject to potential USACE jurisdiction pursuant to Section 404 of the CWA include Features 35 (Santiago Creek), 84, 3 (Peters Canyon Wash), 5 (El Moderna-Irvine Channel), 42 (Bitterbrush Channel), 43 (Santa Ana River), 51 (Carbon Creek), 59/70 (Fullerton Creek), 86 (Coyote Creek), 88 (La Cañada Verde Creek), 95 (Crescent Retarding Basin), 20, 21, and 22. These drainages exhibit ordinary high water marks (OHWMs) and have connectivity to the Pacific Ocean. Therefore, with the exception of Features 35 and 84, the USACE is expected to assert jurisdiction over these drainages as nonwetland waters of the United States.

Drainages 35 (0.36 acre) and 84 (0.22 acre) satisfy the USACE wetland criteria. Therefore, the USACE is expected to assert jurisdiction over Drainages 35 and 84 as wetland WOTUS.

- **Feature 35 (Santiago Creek).** Santiago Creek is an intermittent earthen channel with mostly earthen banks and areas of riprap slopes. Santiago Creek is tributary to the SAR, which in turn is tributary to the Pacific Ocean, a traditional navigable water (TNW). At the time of the delineation, biologists were unable to access the earthen bottom of this feature due to safety concerns. However, based on review of the *Jurisdictional Delineation Report, OCTA Measure M2 Freeway Program Orange County, California* (ICF 2012) and field observations from the Santiago Creek Bike Trail, evidence of OHWMs included the presence of litter and debris and shelving. Additionally, Santiago Creek appears to have a significant nexus to the SAR, and it contributes to the biological, chemical, and physical integrity of a TNW. Further, it was reported that Santiago Creek supports in-channel wetland areas dominated by seaside heliotrope (*Heliotropium curassavicum*; obligate [OBL]), cattail (*Typha domingensis*; OBL), Goodding's willow (*Salix gooddingii*; OBL), arroyo willow (*Salix lasiolepis*; facultative wetland [FACW]), and mulefat (*Baccharis salicifolia*; FACW). The 2012 Jurisdictional Delineation Report concluded that Santiago Creek supports hydric soils, hydrophytic vegetation, and wetland hydrology. Within the JDSA, Santiago Creek consists of 0.36 acre of potential wetland WOTUS subject to USACE jurisdiction under Section 404 of the CWA.
- **Feature 84.** This feature is a catchment basin that is tributary to Fullerton Creek, which in turn is tributary to the Pacific Ocean, a TNW. At the time of the jurisdictional delineation, this feature was ponded with water throughout. OHWM indicators included a change in vegetation; however, additional potential OHWMs

were obscured by the above-average levels of inundation. Feature 84 appears to have a significant nexus to Fullerton Creek and contributes to the biological, chemical, and physical integrity of a TNW. Additionally, Feature 84 is vegetated with wetland indicator species, including: broad-leaf cattail (*Typha latifolia*; OBL), narrow-leaf cattail (*Typha angustifolia*; OBL), Mexican sprangletop (*Leptochloa fusca* spp. *uninervia*; FACW), slender aster (*Symphyotrichum subulatum*; OBL), alkali bulrush (*Bolboschoenus maritimus*; OBL), and one upland species, Bermuda grass (*Cynodon dactylon*; facultative upland [FACU]). Further, it was determined that while the soil present at Feature 84 was problematic due to this basin being artificially constructed, the soils exhibited hydric indicators. Therefore, because Feature 84 supports hydric soils, hydrophytic vegetation, and wetland hydrology, it comprises 0.218 acre of potential wetland WOTUS subject to USACE jurisdiction under Section 404 of the CWA within the JDSA.

Drainages 8, 16, 17, 19, 23, 24, 25, 26, 27, 30, 31, 34, 38, 40, 45, 46, 47, 48, 49 52, 57, 65, 74, 75, 76, 76a, 76b, 77, 79, 81, 82, 83, 85, 87, 87a, 90, 90a, 96, 97, 98, 99, 102, 103, 109, 109a, 110, 113, and 115 are human-made drainages that do not displace a previously existing natural drainage channel and are wholly in and draining only uplands that do not convey at least a relatively permanent flow of water. Therefore, the USACE is not expected to assert jurisdiction over these drainages.

The *Jurisdictional Delineation* indicated there are a total of 34.87 acres of nonwetland waters and 0.58 acre of wetlands that are potentially subject to USACE jurisdiction. The *Jurisdictional Delineation* will be submitted to the USACE as part of the permit process during the Plans, Specifications, and Estimates (PS&E) stage of the proposed Project. Coordination with the USACE is required as part of the Project as part of measure WET-1, which is described in more detail in Section 2.17.4.

2.17.2.2 RWQCB Jurisdictional Areas

While there are specific procedures for delineating State wetlands, there is no formal public guidance on determining RWQCB nonwetland waters of the State. For this study, RWQCB jurisdiction was determined based on the State definition of wetlands (three-parameter) and the OHWM of other waters of the United States. Since there are areas within the BSA subject to USACE and CDFW jurisdiction, RWQCB jurisdiction in this case is coincident with USACE jurisdiction for purposes of Section 401 certification. The total area of potential RWQCB jurisdiction is the same as the

USACE jurisdiction (i.e., 35.45 acres). Coordination with RWQCB is required as part of measure WET-1.

2.17.2.3 CDFW Jurisdictional Areas

All 10 primary features and all of their associated upstream unnamed tributary features identified within the BSA (i.e., La Cañada Verde Creek, Coyote Creek, Fullerton Creek, Carbon Creek, Crescent Retarding Basin, Santa Ana River, Bitterbrush Channel, Santiago Creek, El Modena-Irvine Channel, and Peters Canyon Wash), as well as 3 unnamed features not tributary to any of the 10 primary features (i.e., Features 20, 21, and 22), exhibited some characteristics that could be considered indicative of "streams" potentially subject to jurisdiction under Section 1602 of the California Fish and Game Code. The primary delineated areas had standing or flowing water in the drainage features at the time of the jurisdictional delineation fieldwork, which indicated a more regular, intermittent water source.

In addition, although existing only seasonally or ephemerally until scoured by an intense flow event, many of the primary features support some emergent herbaceous wetland plants. Therefore, although most of the drainage features are formerly natural drainages converted to artificially constructed stormwater control channels, those drainage features designated as CDFW jurisdictional areas do appear to provide some small degree of aquatic resource characteristics indicative of some streams occurring in urban conditions.

Feature 84 consists of riparian habitat within the streambed of that drainage. The total area in the BSA subject to CDFW jurisdiction is 52.09 acres. Coordination with CDFW is required as part of measure WET-1.

2.17.3 Environmental Consequences

The discussions regarding the potential temporary and permanent impacts from the proposed Project on jurisdictional and nonjurisdictional waters in the following sections should be considered preliminary until verified by the USACE, the CDFW, and the RWQCB.

2.17.3.1 Temporary Impacts

Build Alternative (Alternative 2)

Construction of Alternative 2 would not result in temporary impacts to jurisdictional features as jurisdictional features are absent from the impact area (see Figure 2.17-1).

Build Alternatives (Alternatives 3 and 4)

Temporary Impacts to Jurisdictional Areas

USACE Jurisdictional Areas

Alternative 3 would result in 2.02 acres of temporary impacts to nonwetland waters and 0.22 acre of temporary impacts to wetland waters subject to USACE jurisdiction, as shown in Table 2.17.1 and on Figure 2.17-2.

Alternative 4 would result in 2.24 acres of temporary impacts to nonwetland waters and 0.22 acre of temporary impacts to wetland waters subject to USACE jurisdiction, as shown in Table 2.17.2 and on Figure 2.17-3.

RWQCB Jurisdictional Areas

As noted earlier, Tables 2.17.1 and 2.17.2 show the temporary impacts to the USACE areas by Alternatives 3 and 4, respectively. The temporary impacts to RWQCB jurisdictional areas would be the same as shown in Tables 2.17.1 and 2.17.2 and on Figures 2.17-2 and 2.17-3 for the USACE, 2.02 acres and 2.24 acres of nonwetlands, respectively, and 0.22 acre of wetlands under both Alternatives 3 and 4.

CDFW Jurisdictional Areas

Alternative 3 would result in 3.29 acres of temporary impacts to aquatic resources subject to CDFW jurisdiction, as shown in Table 2.17.1 and on Figure 2.17-2.

Alternative 4 would result in 4.50 acres of temporary impacts to drainages subject to CDFW jurisdiction, as shown in Table 2.17.2 and on Figure 2.17-3.

Table 2.17.1: Jurisdictional Areas Impacted by Alternative 3

Feature No.	USACE and RWQCB				CDFW	
	Nonwetland WOTUS/ WOTS Permanent Impacts (acres)	Wetland WOTUS/ WOTS Permanent Impacts (acres)	Nonwetland WOTUS/ WOTS Temporary Impacts (acres)	Wetland WOTUS/ WOTS Temporary Impacts (acres)	Streams/ Rivers/ Riparian Habitat Permanent Impacts (acres)	Streams/ Rivers/ Riparian Habitat Temporary Impacts (acres)
11	-	-	0.01	-	-	0.01
12	-	-	<0.01	-	-	<0.01
13	-	-	0.01	-	-	0.03
29	-	-	<0.01	-	-	<0.01
32	-	-	-	-	-	0.02
36	-	-	0.14	-	-	0.32
37	-	-	0.23	-	-	0.25
39	-	-	0.07	-	-	0.07
41	-	-	0.07	-	-	0.12
43	-	-	0.64	-	-	0.86
50	-	-	0.06	-	-	0.06
51	-	-	0.04	-	-	0.07
53	-	-	0.04	-	-	0.04
59	-	-	<0.01	-	-	0.01
67	-	-	<0.01	-	-	0.01
68	-	-	0.02	-	-	0.08
69	-	-	0.03	-	-	0.07
70	-	-	0.01	-	-	0.03
71	-	-	0.14	-	-	0.32
84	-	-	-	0.22	-	0.22
100	-	-	0.01	-	-	0.02
104	-	-	0.11	-	-	0.11
105	-	-	0.02	-	-	0.02
106	-	-	0.04	-	-	0.08
107	-	-	0.08	-	-	0.08
108	-	-	<0.01	-	-	<0.01
119	-	-	0.04	-	-	0.16
120	-	-	<0.01	-	-	0.02
121	-	-	0.01	-	-	0.01
122	-	-	<0.01	-	-	0.02
Total	**0**	**0**	**2.02**	**0.22**	**0**	**3.29**

Source: *Natural Environment Study Minimal Impacts* (April 2023).
*Totals may appear inaccurate due to rounding.
**Features not included on the table will be avoided (no permanent or temporary impacts).
CDFW = California Department of Fish and Wildlife
RWQCB = Regional Water Quality Control Board
USACE = United States Army Corps of Engineers
WOTS = waters of the State
WOTUS = waters of the United States

Table 2.17.2: Jurisdictional Areas Impacted by Alternative 4

Feature No.	USACE and RWQCB				CDFW	
	Nonwetland WOTUS/ WOTS Permanent Impacts (acres)	Wetland WOTUS/ WOTS Permanent Impacts (acres)	Nonwetland WOTUS/ WOTS Temporary Impacts (acres)	Wetland WOTUS/ WOTS Temporary Impacts (acres)	Streams/ Rivers/ Riparian Habitat Permanent Impacts (acres)	Streams/ Rivers/ Riparian Habitat Temporary Impacts (acres)
11	-	-	<0.01	-	-	0.02
12	-	-	<0.01	-	-	<0.01
13	-	-	0.01	-	-	0.03
---29	-	-	<0.01	-	-	<0.01
32	-	-	-	-	-	0.01
---36	-	-	0.14	-	-	0.46
37	-	-	0.23	-	-	0.25
39	-	-	0.07	-	-	0.07
41	-	-	0.07	-	-	0.20
43	-	-	0.64	-	-	1.51
50	-	-	0.06	-	-	0.06
51	-	-	0.04	-	-	0.11
53	-	-	0.04	-	-	0.04
59	-	-	0.0043	-	-	0.01
67	-	-	0.0023	-	-	0.01
68	-	-	0.02	-	-	0.10
69	-	-	0.03	-	-	0.10
70	-	-	0.01	-	-	0.04
71	-	-	0.14	-	-	0.46
84	-	-	-	0.22	-	0.22
100	-	-	0.22	-	-	0.03
104	-	-	0.11	-	-	0.11
105	-	-	0.02	-	-	0.02
106	-	-	0.04	-	-	0.11
107	-	-	0.08	-	-	0.08
108	-	-	<0.01	-	-	<0.01
119	-	-	0.04	-	-	0.20
120	-	-	<0.01	-	-	0.02
121	-	-	0.01	-	-	0.01
122	-	-	<0.01	-	-	0.02
Total	**0**	**0**	**2.24**	**0.22**	**0**	**4.50**

Source: *Natural Environment Study Minimal Impacts* (April 2023).
*Totals may appear inaccurate due to rounding.
**Features not included on the table will be avoided (no permanent or temporary impacts).
CDFW = California Department of Fish and Wildlife
RWQCB = Regional Water Quality Control Board
USACE = United States Army Corps of Engineers
WOTS = waters of the State
WOTUS = waters of the United States

Temporary Water Quality Impacts

There is also the potential for temporary indirect water quality impacts through sediment introduction and transport downstream. Refer to the discussion in Section 2.9, Water Quality and Stormwater Runoff, regarding this issue. Identification and implementation of erosion, sedimentation, and pollution prevention best management practices (BMPs) in the Stormwater Pollution Prevention Plan

(SWPPP; refer to Section 2.9) for the proposed Project would avoid or minimize indirect impacts to jurisdictional areas during construction.

With implementation of Project Feature PF-WQ-1 in Section 2.9, Project Features PF-NAT-1 through PF-NAT-5 and measures NAT-1 and NAT-2 in Section 2.16, Natural Communities, and WET-1 in Section 2.17.2.1, potential temporary impacts to jurisdictional areas would not be adverse.

No Build Alternative (Alternative 1)

None of the improvements to I-5 proposed under the Build Alternatives would be constructed under the No Build Alternative. Therefore, the No Build Alternative would not result in adverse temporary impacts to USACE, CDFW, or RWQCB areas in the BSA.

2.17.3.2 Permanent Impacts

Build Alternatives (Alternatives 2, 3 and 4)

Implementation of Alternatives 2, 3 and 4 would not result in permanent impacts to jurisdictional features within the BSA. Therefore, Alternatives 2, 3 and 4 would not result in adverse permanent impacts to USACE, CDFW, or RWQCB areas in the BSA. Measure WET-1 would continue to apply to Alternatives 2 and 3 due to presence of temporary impacts to USACE, CDFW, or RWQCB areas in the BSA. However, compensatory mitigation is not required or warranted as Alternatives 2, 3 and 4 would not result in permanent impacts.

No Build Alternative (Alternative 1)

None of the improvements to I-5 proposed under the Build Alternatives would be constructed or operated under the No Build Alternative. Therefore, the No Build Alternative would not result in adverse permanent impacts to USACE, CDFW, or RWQCB areas in the BSA.

2.17.4 Avoidance, Minimization, and/or Mitigation Measures

As noted above, measure WET-1 would be incorporated to help avoid and/or minimize potential impacts related to permit coordination associated with the Project's *Jurisdictional Delineation*.

WET-1 **Regulatory Permitting.** Prior to initiation of construction, permits shall be obtained for the proposed Project through the United States Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA), the State Water Resources Control Board

(SWRCB) pursuant to Section 401 of the CWA, and the California Department of Fish and Wildlife (CDFW) pursuant to Section 1602 of the California Fish and Game Code.

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Delineated Drainage Features
Non-jurisdictional

0 200 400
FEET

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt2.mxd (3/7/2023)

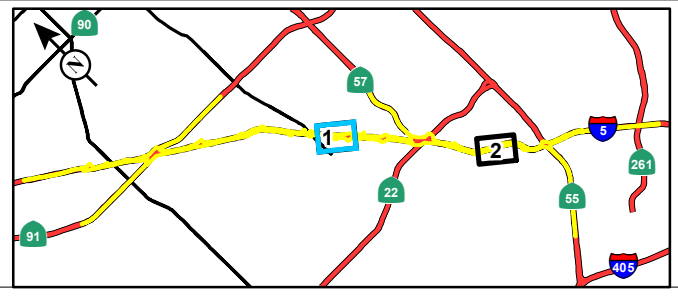
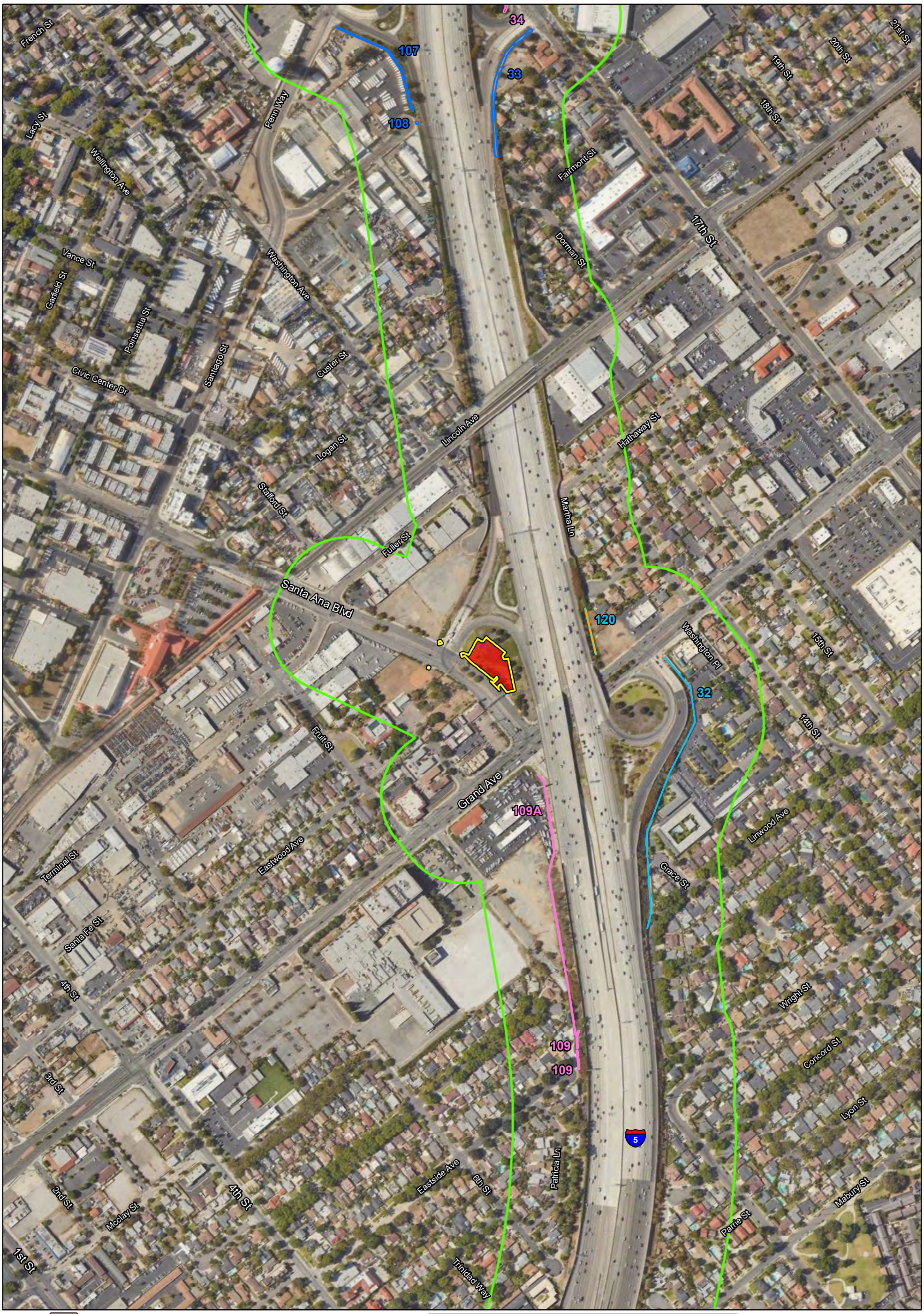


FIGURE 2.17-1
Sheet 1 of 2

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 2
EA No. 0Q950

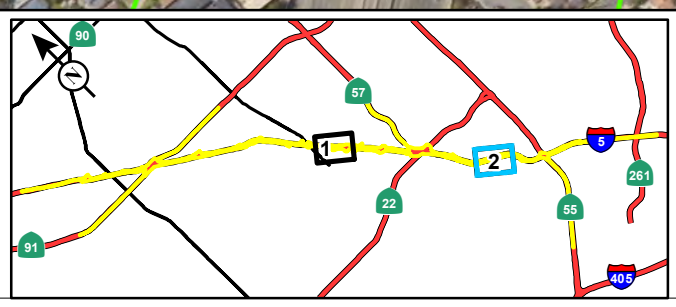
This page intentionally left blank



Project Footprint
Biological Study Area
Impacts
Permanent

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET



SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt2.mxd (3/7/2023)

FIGURE 2.17-1
Sheet 2 of 2

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 2
EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

FIGURE 2.17-2
Sheet 1 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary
Delineated Drainage Features
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

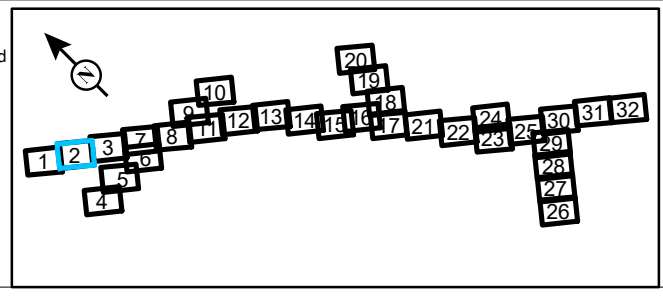


FIGURE 2.17-2
Sheet 2 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

FIGURE 2.17-2
Sheet 3 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area
Delineated Drainage Features
Non-jurisdictional
Impacts
Permanent
Temporary

0 200 400
FEET

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

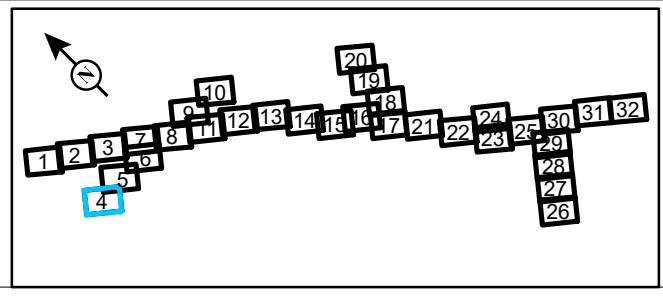


FIGURE 2.17-2
Sheet 4 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary
Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

FIGURE 2.17-2
Sheet 5 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

FIGURE 2.17-2
Sheet 6 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

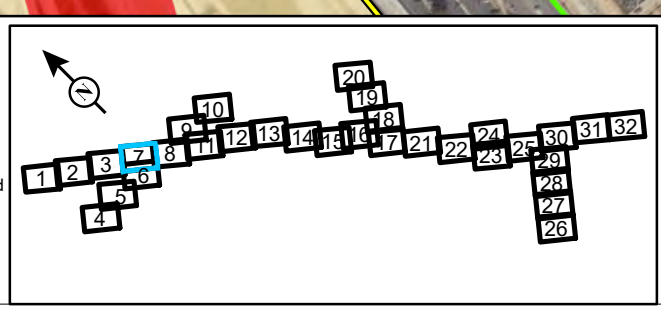


FIGURE 2.17-2
Sheet 7 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

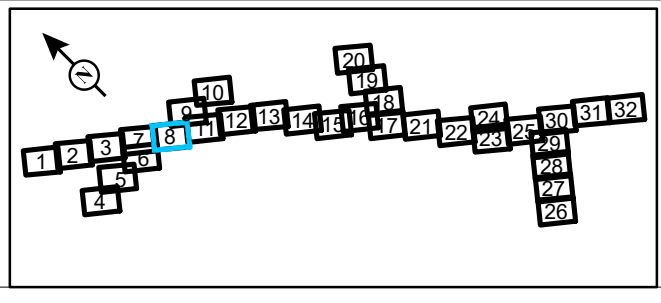


FIGURE 2.17-2
Sheet 8 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

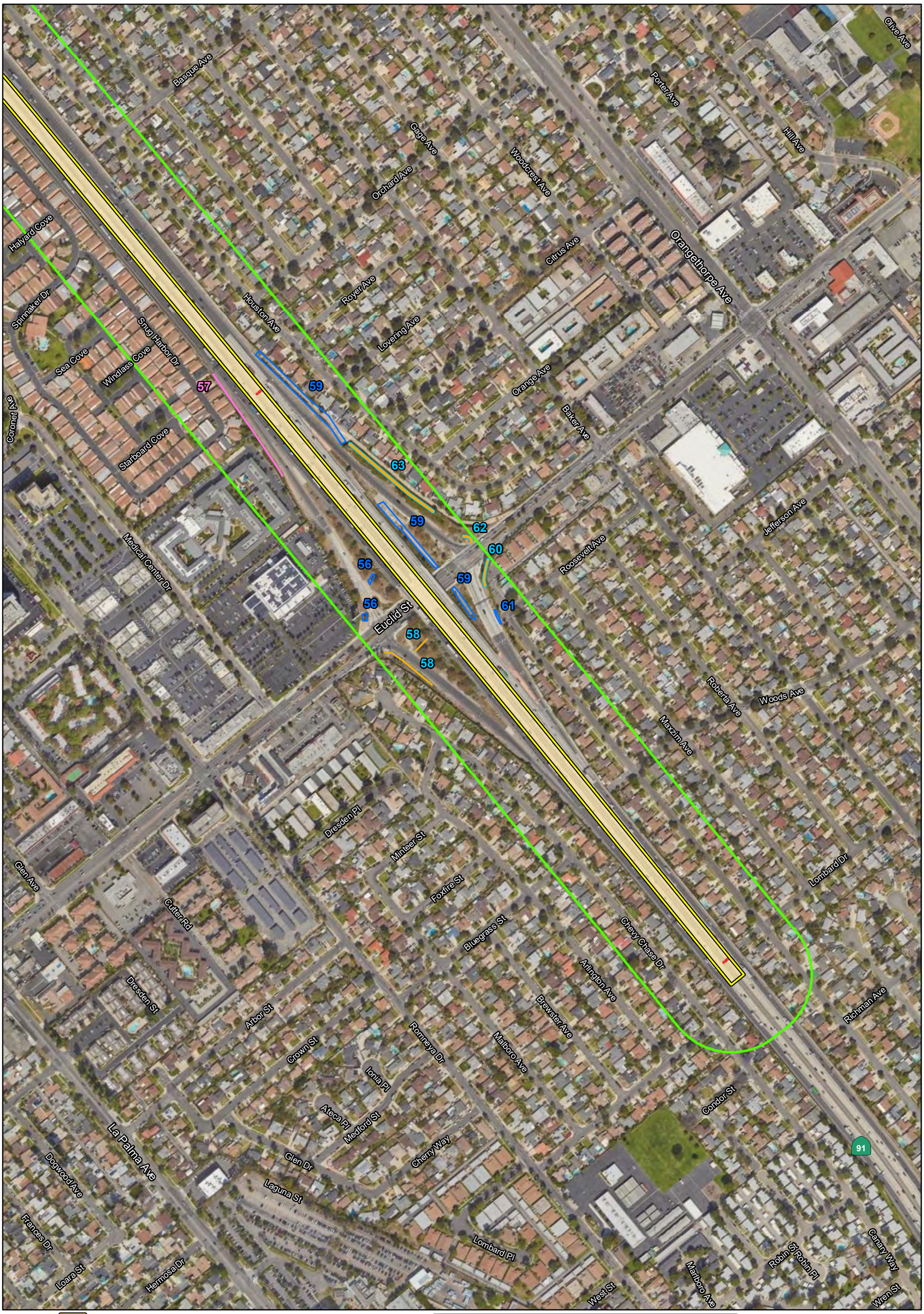
FIGURE 2.17-2
Sheet 9 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank



Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

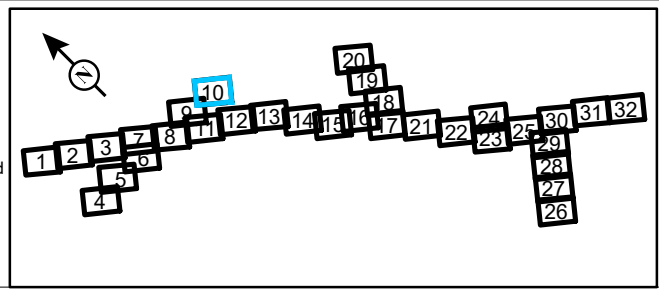


FIGURE 2.17-2
Sheet 10 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

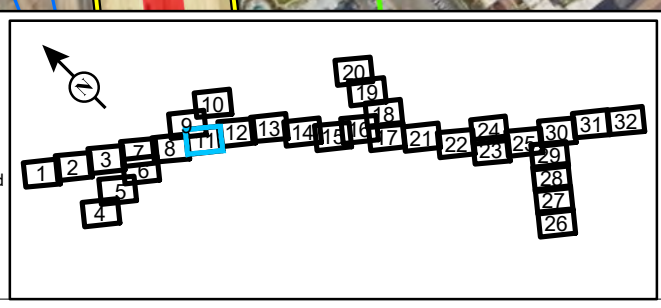


FIGURE 2.17-2
Sheet 11 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

FIGURE 2.17-2
Sheet 12 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

0 200 400
FEET

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

FIGURE 2.17-2
Sheet 13 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

0 200 400
FEET

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

FIGURE 2.17-2
Sheet 14 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

This page intentionally left blank

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

FIGURE 2.17-2
Sheet 15 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
Non-jurisdictional

0 200 400
FEET

SOURCE: Google (2021)

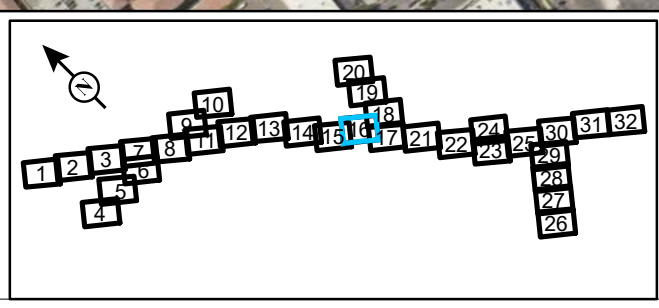


FIGURE 2.17-2
Sheet 16 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary
Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
0 200 400
FEET

SOURCE: Google (2021)

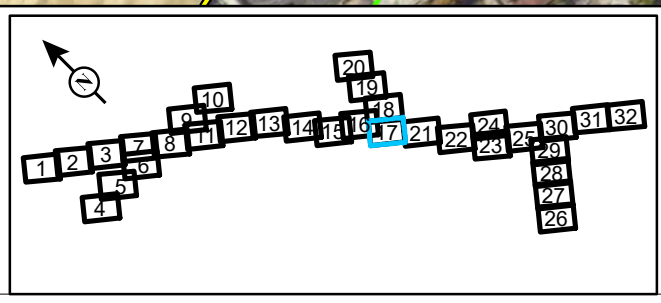


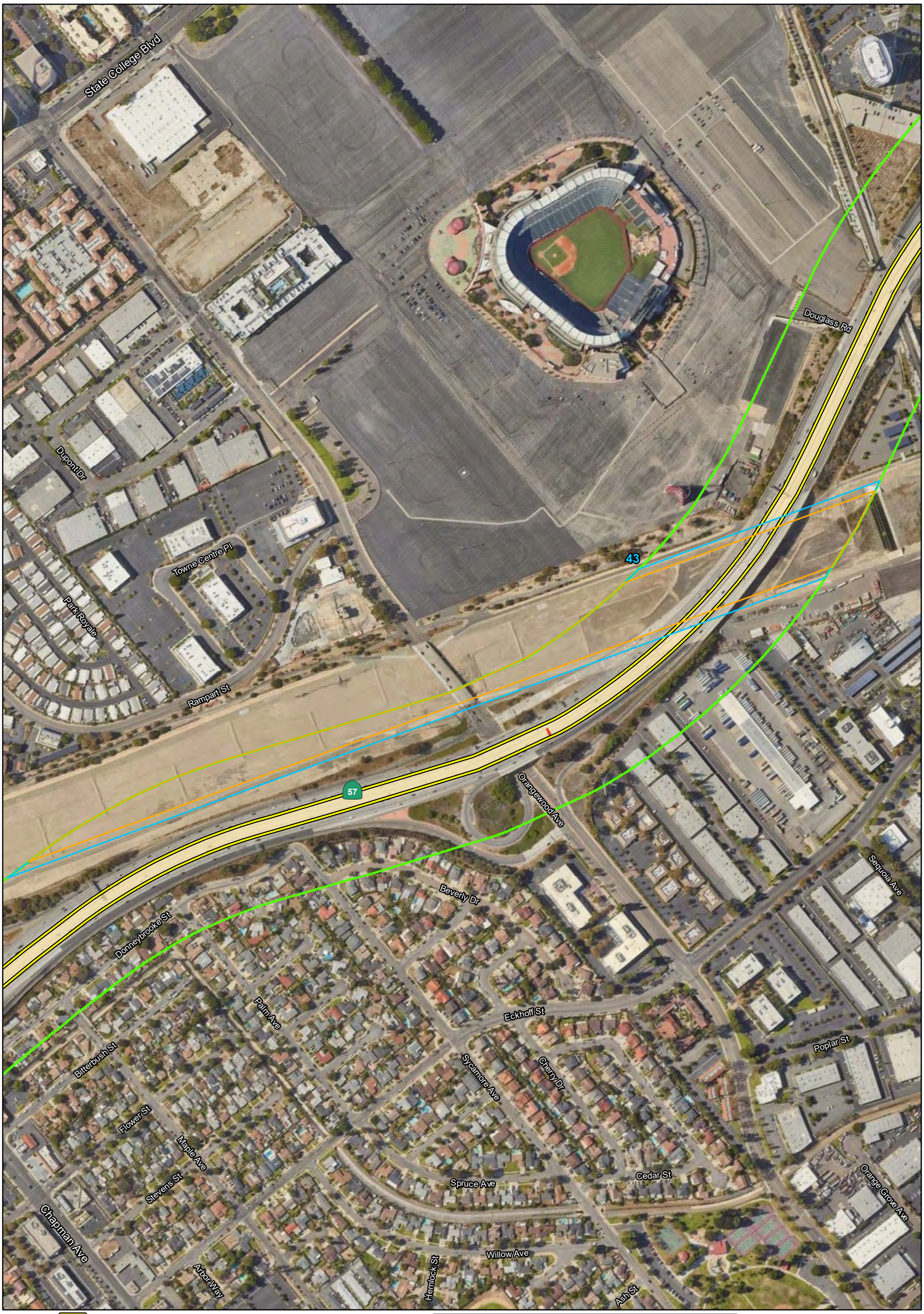
FIGURE 2.17-2
Sheet 17 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank



SOURCE: Google (2021)

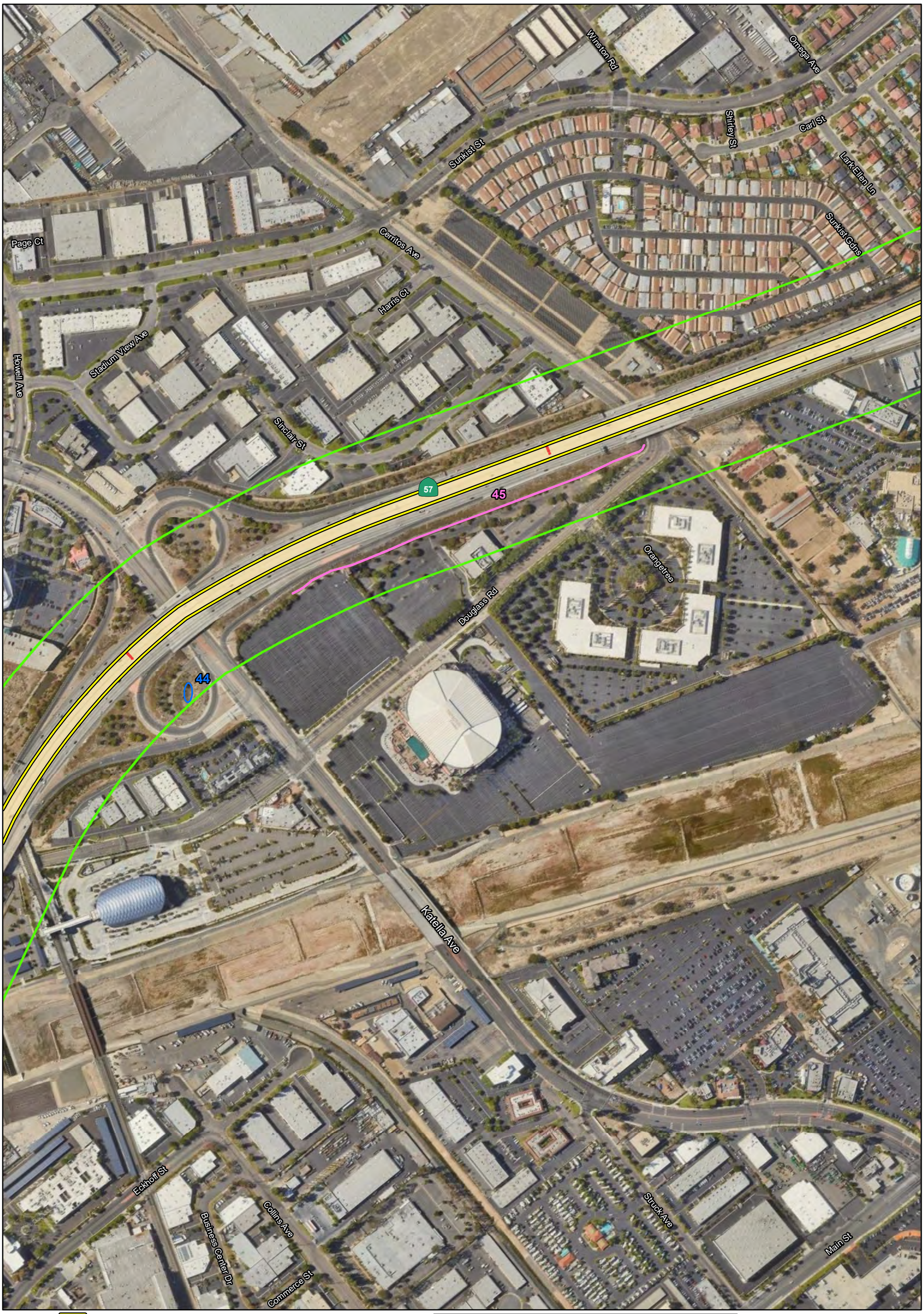
I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

FIGURE 2.17-2
Sheet 18 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

This page intentionally left blank



Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
Non-jurisdictional
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

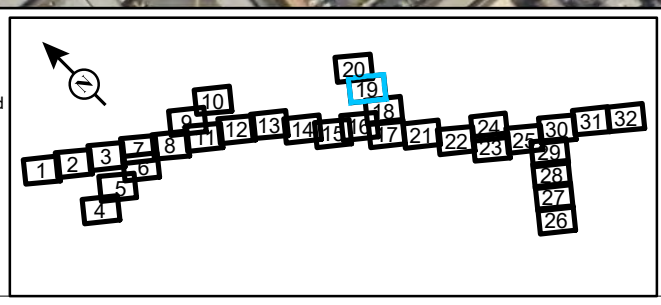


FIGURE 2.17-2
Sheet 19 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

0 200 400
FEET

SOURCE: Google (2021)

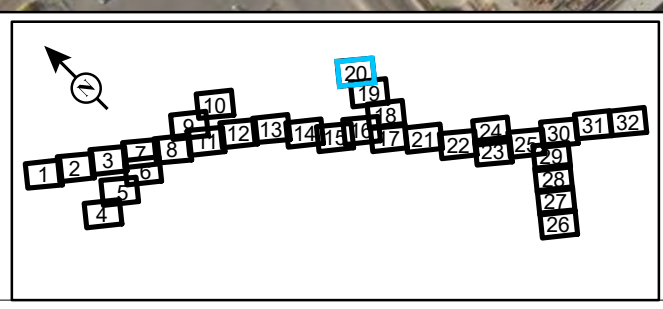


FIGURE 2.17-2
Sheet 20 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed
USACE Wetland WOTUS / RWQCB Wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

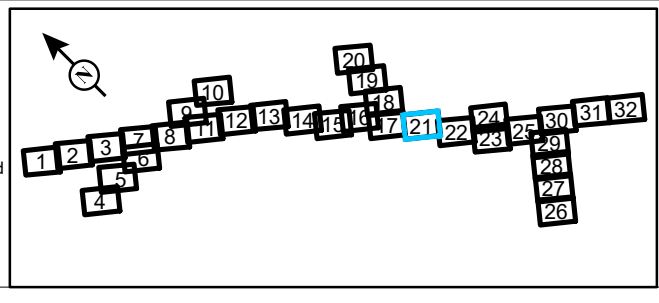


FIGURE 2.17-2
Sheet 21 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed
USACE Wetland WOTUS / RWQCB Wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

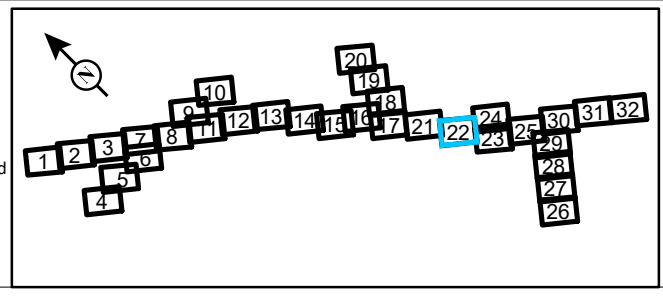


FIGURE 2.17-2
Sheet 22 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

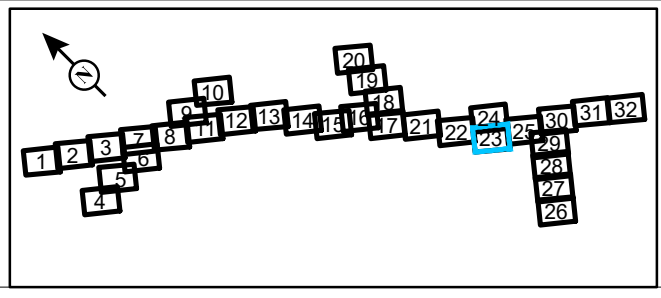


FIGURE 2.17-2
Sheet 23 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary
Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

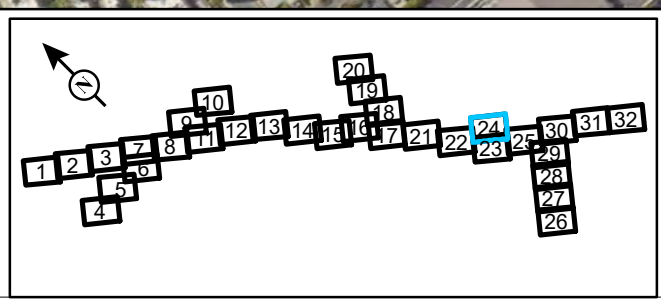


FIGURE 2.17-2
Sheet 24 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

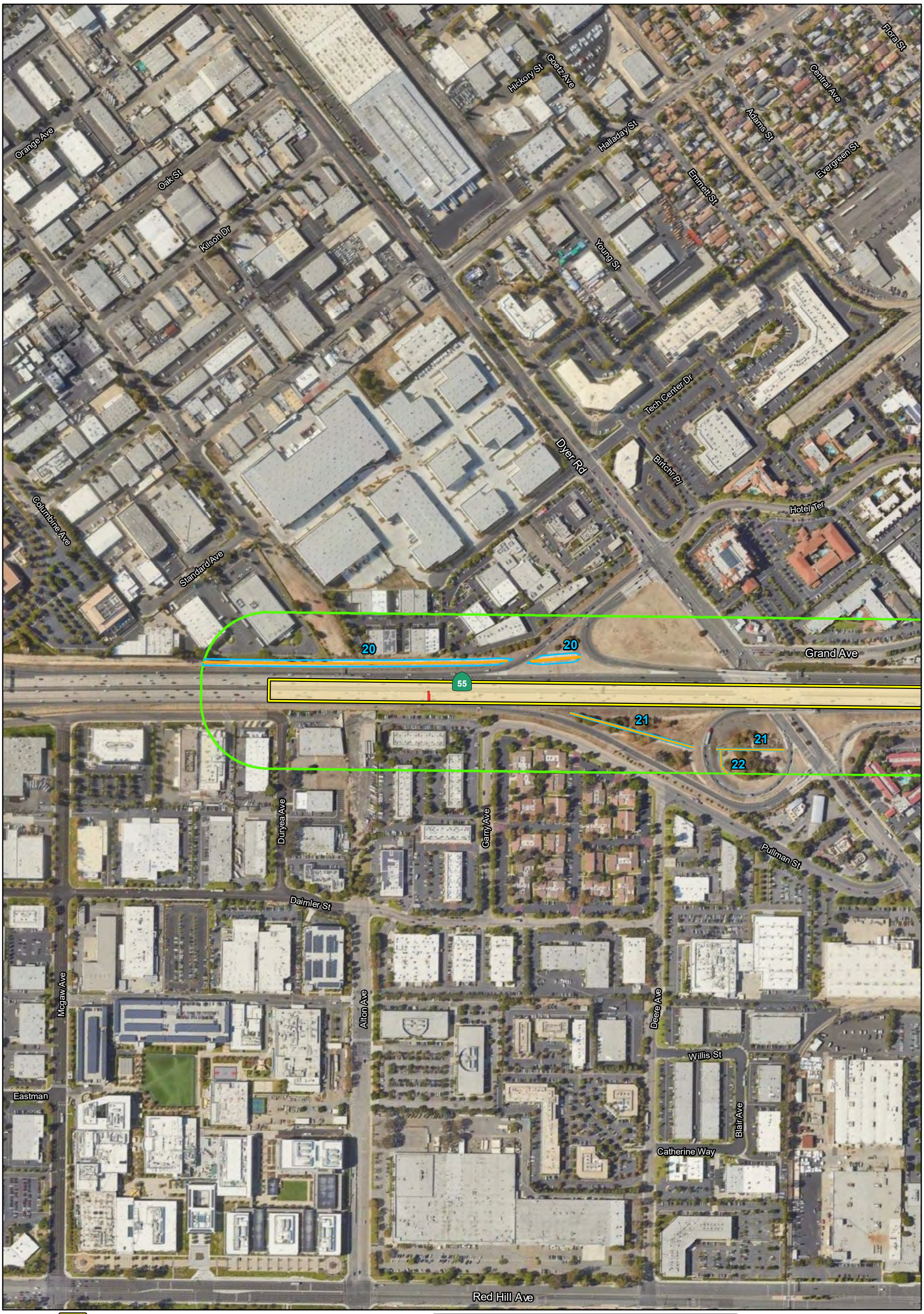
I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

FIGURE 2.17-2
Sheet 25 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

This page intentionally left blank



SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

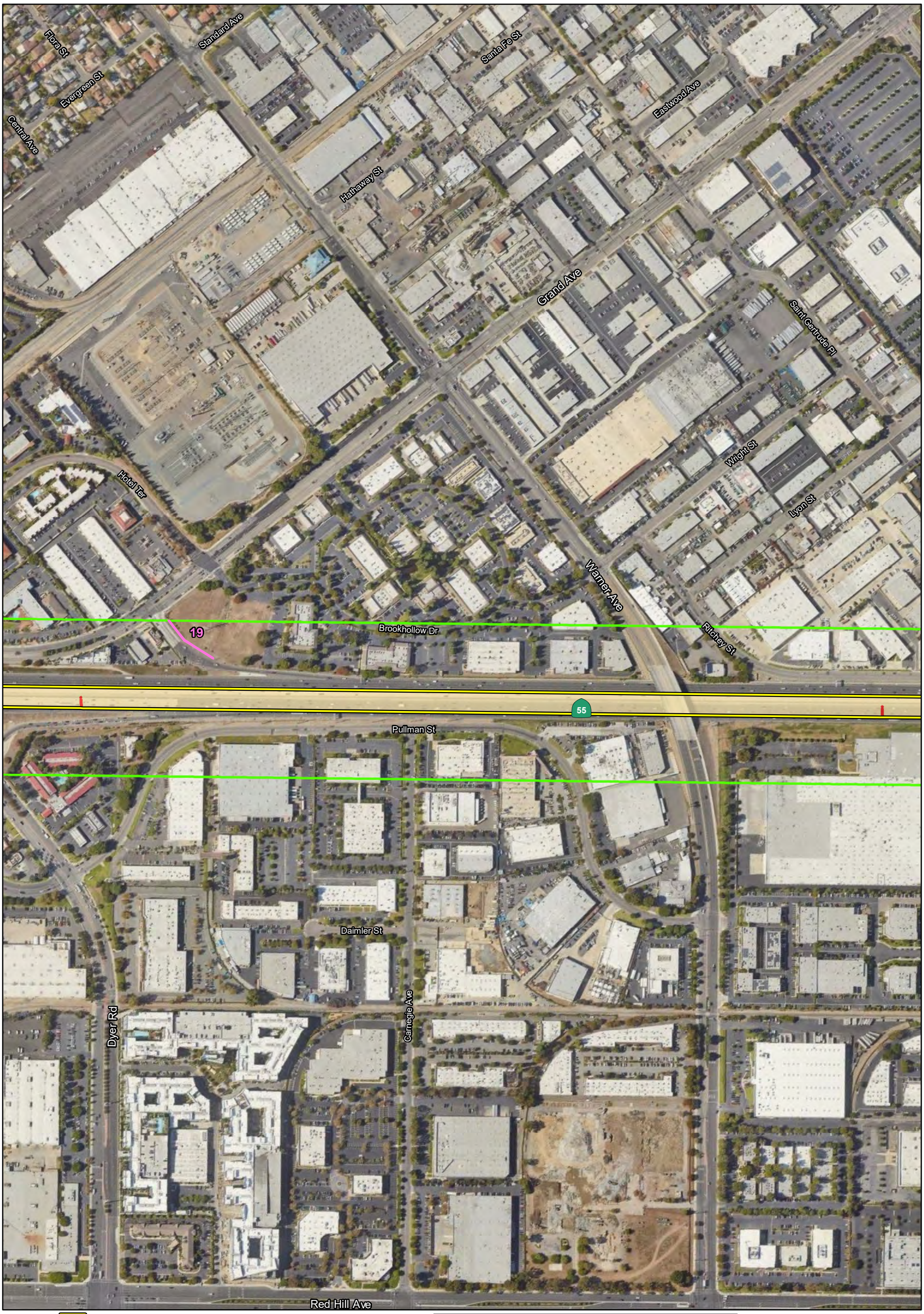
FIGURE 2.17-2
Sheet 26 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3

EA No. 0Q950

This page intentionally left blank



Project Footprint
Biological Study Area
Impacts
Permanent
Temporary
Delineated Drainage Features
Non-jurisdictional

0 200 400
FEET

SOURCE: Google (2021)

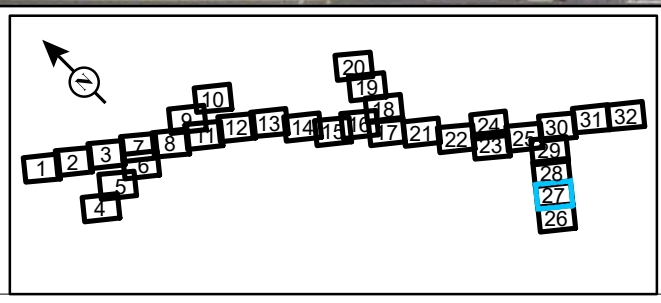


FIGURE 2.17-2
Sheet 27 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

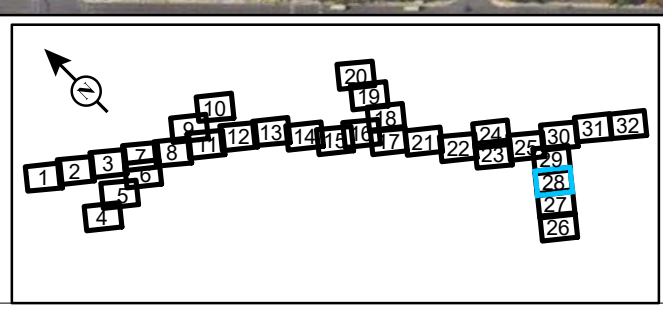


FIGURE 2.17-2
Sheet 28 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

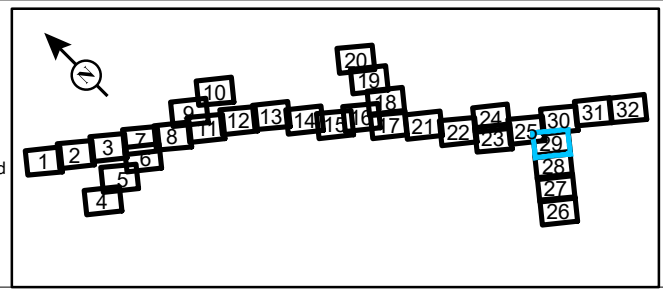


FIGURE 2.17-2
Sheet 29 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Myrtle Ave
Corla Ave
Pacific St
California St
Medallion Ave
Ebel Rd
Del Sud
Media
Entrada
Del Norte
119
C St
3rd St
Prospect Ave
Main St
6th St
Ambrose Ln
Cozad Cir
El Camino Way
Platt Way
B St
Mcfadden Ave
Newport Ave
Newport Blvd
Raleigh Pl
Debusk Ln
Walter Ave
Bonita St
Walnut St
Orange St
Del Amo Ave
Carfax Ave
Hamlet Ln
Wildeve Ln
Kipling Ln
Walden Ln
Mitchell Ave
Charloma Dr
Nisson Rd
El Camino Real
San Juan St
Birmingham Pl
Windemere Ln
Veeh Dr
Woodlawn Ave
Foresterra Ln
Penrith Ln
Utt Dr
Grassmere Ln
Green Valley Dr
Red Hill Ave
Quent Dr
Copperfield Dr
Rosalie Pl
Birchfield Dr
Sandbrook Dr
5
Tustin East Dr
Silverbrook Dr
Brittany Woods St
Walter Ct
Deerfield Ave

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

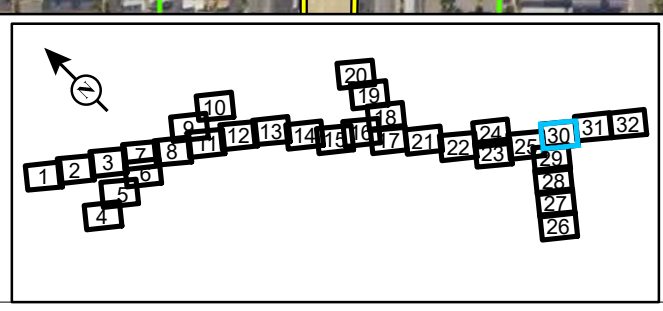


FIGURE 2.17-2
Sheet 30 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

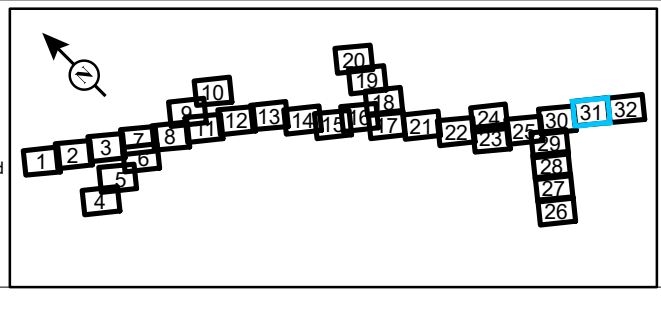


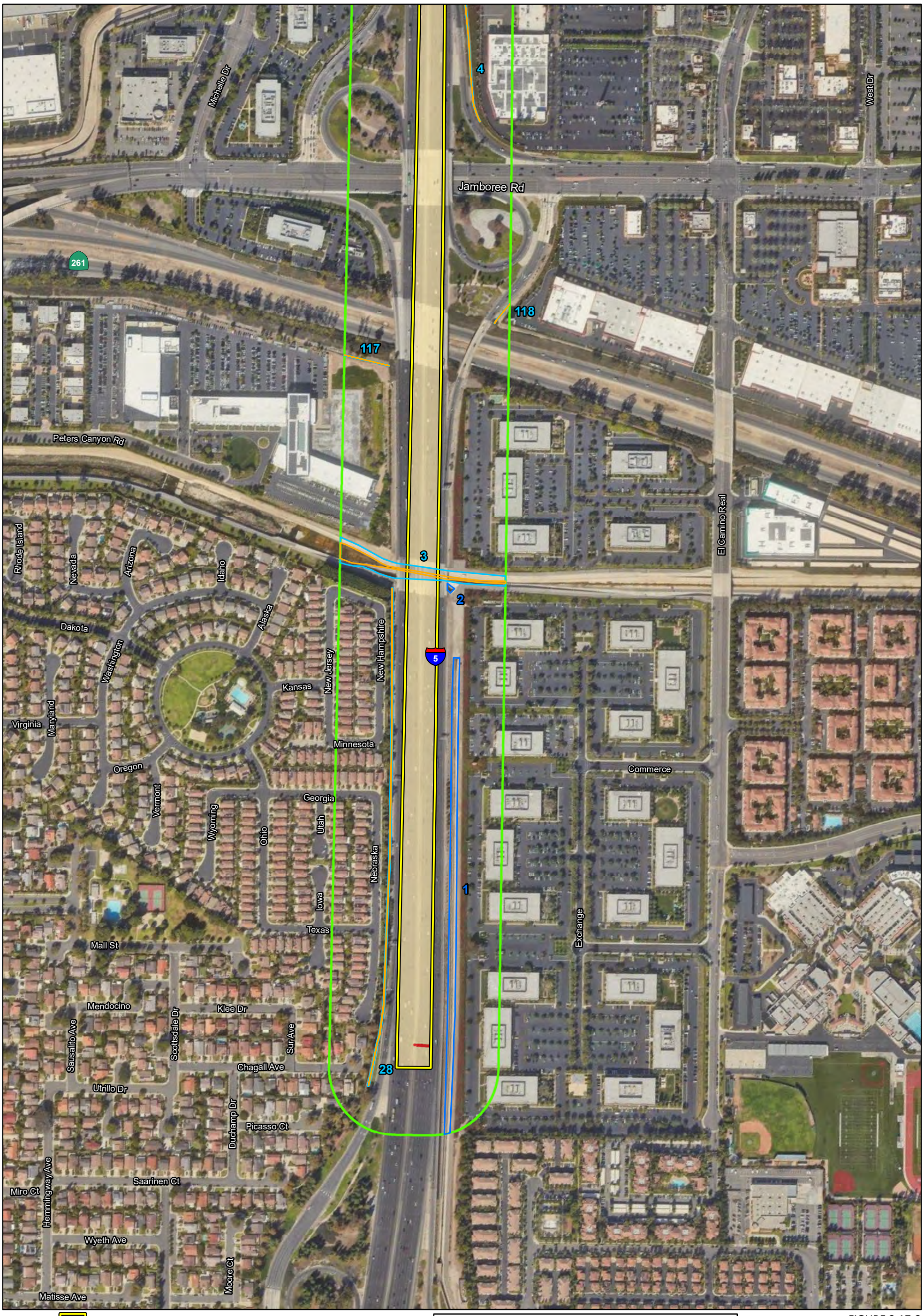
FIGURE 2.17-2
Sheet 31 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

This page intentionally left blank



Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

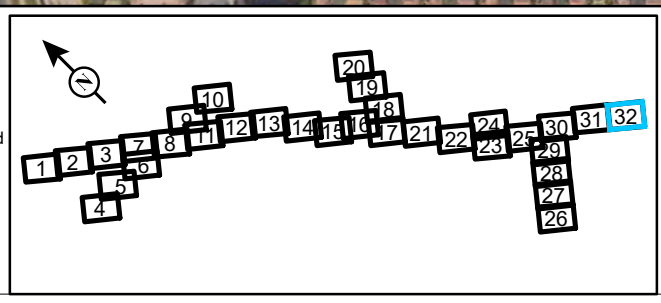


FIGURE 2.17-2
Sheet 32 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 3
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt3.mxd (3/22/2023)

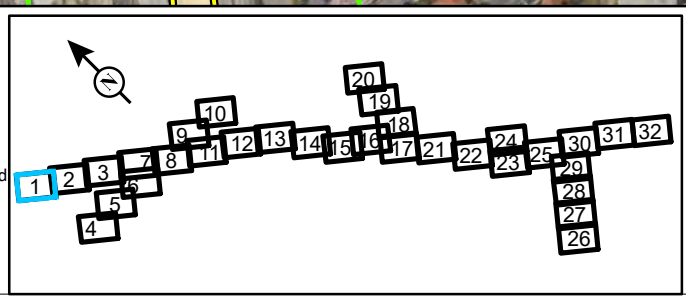
This page intentionally left blank

Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET



SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3
Sheet 1 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4

EA No. 0Q950

This page intentionally left blank

Valley View Ave
Heron Ave
Phoebe Ave
Chevron Way
Industry Pl
Industry Cir
5
Firestone Blvd
Trojan Way
Desman Rd
86
170th St
Altura Blvd
Artesia Blvd
Osmond Ave
Knott Ave
Cate Dr

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary
Delineated Drainage Features
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3
Sheet 2 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

This page intentionally left blank

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3

Sheet 3 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4

EA No. 0Q950

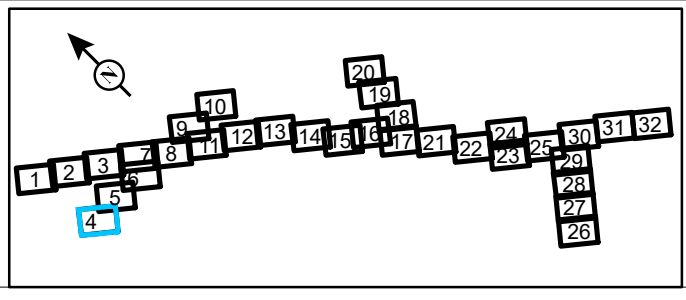
This page intentionally left blank

Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
Non-jurisdictional

0 200 400
FEET



SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3
Sheet 4 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

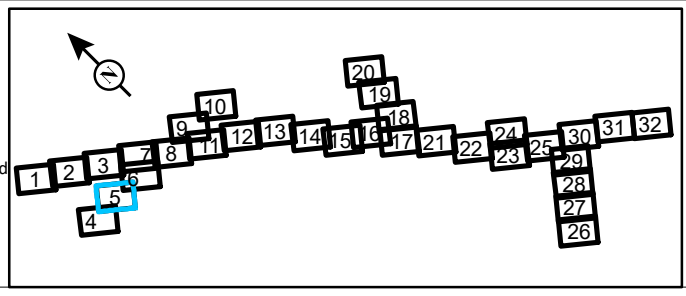


FIGURE 2.17-3
Sheet 5 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

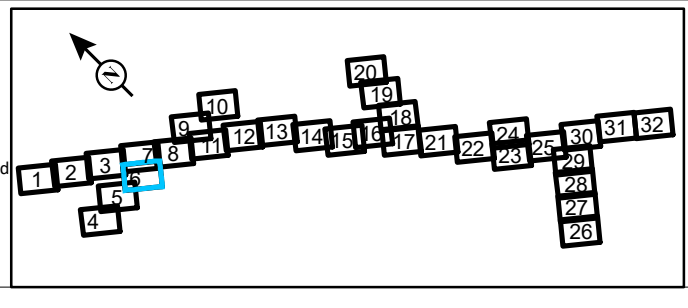


FIGURE 2.17-3
Sheet 6 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3
Sheet 7 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4

EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary
Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

FIGURE 2.17-3
Sheet 8 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

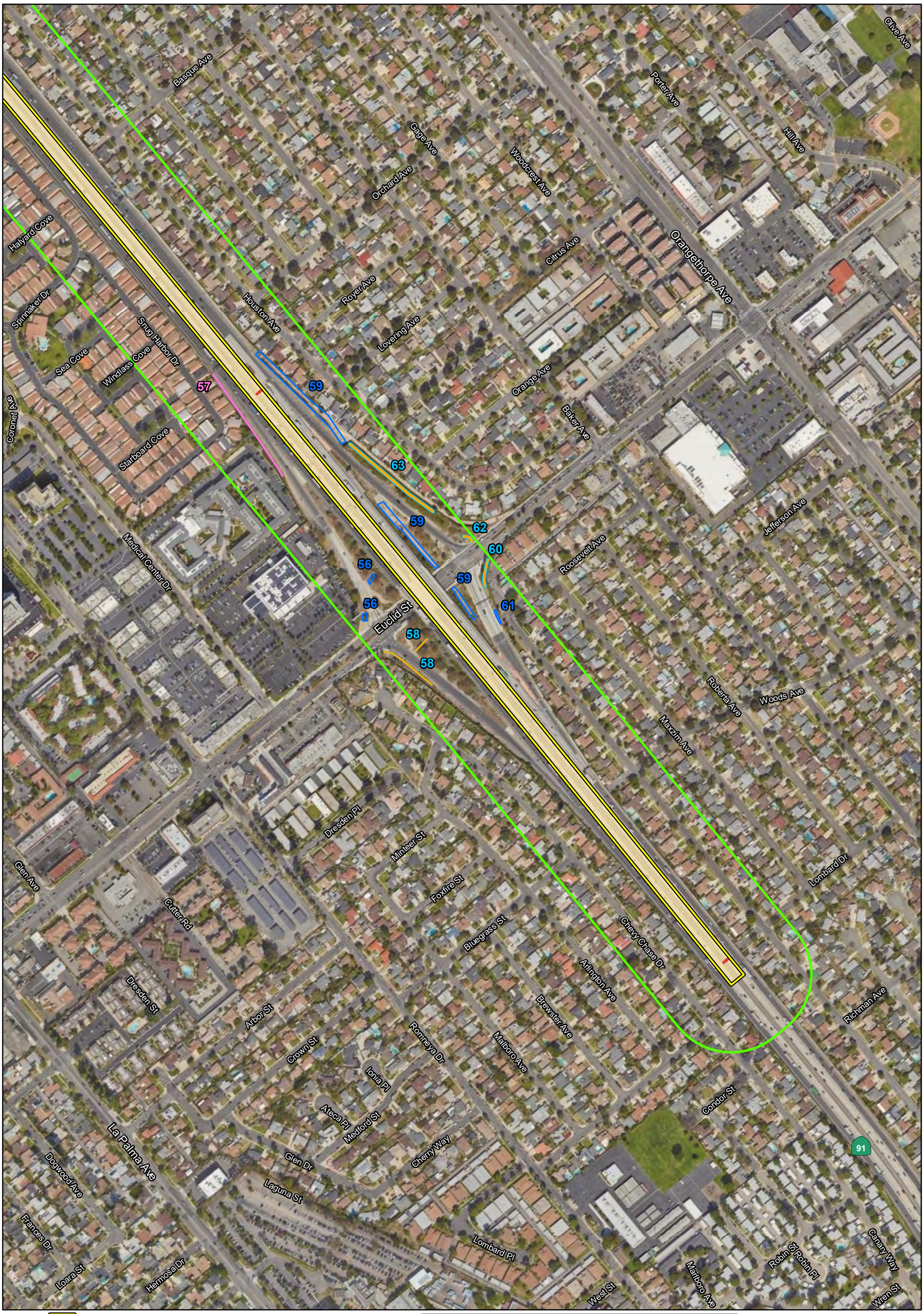
FIGURE 2.17-3
Sheet 9 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank



SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3
Sheet 10 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

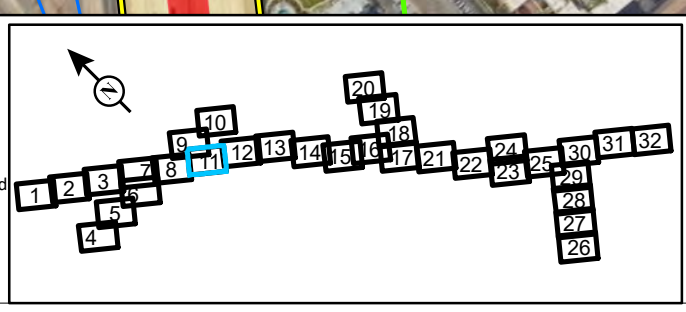


FIGURE 2.17-3
Sheet 11 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

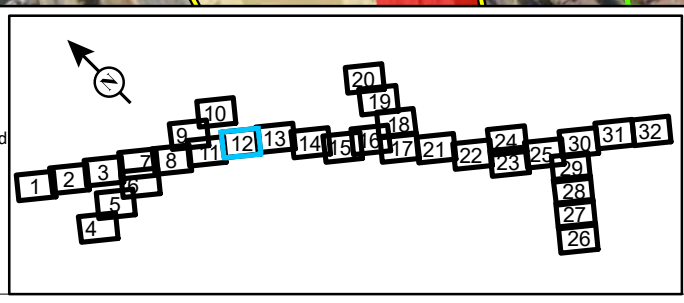


FIGURE 2.17-3
Sheet 12 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

0 200 400
FEET

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3
Sheet 13 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

This page intentionally left blank

Project Footprint

Biological Study Area

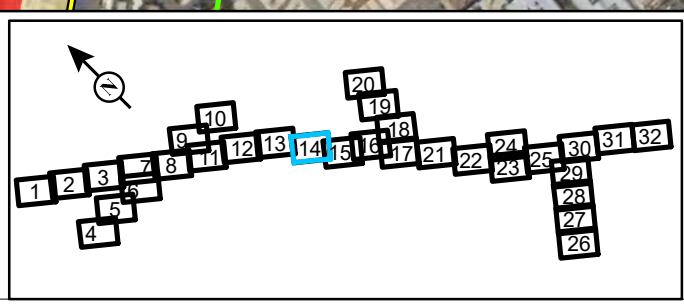
Impacts

Permanent

Temporary

0 200 400

FEET



SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3

Sheet 14 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4

EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area

Delineated Drainage Features
Non-jurisdictional

Impacts
Permanent
Temporary

0 200 400
FEET

SOURCE: Google (2021)

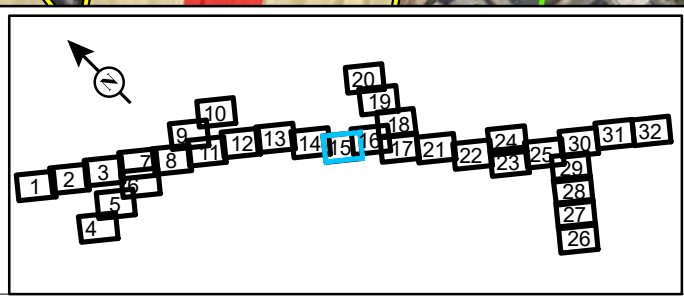


FIGURE 2.17-3
Sheet 15 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary
Delineated Drainage Features
Non-jurisdictional

0 200 400
FEET

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3
Sheet 16 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

This page intentionally left blank

SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3
Sheet 17 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4

EA No. 0Q950

This page intentionally left blank

State College Blvd
Douglass Rd
Dupont Dr
Towne Centre Pl
Park Royale
Rampart St
43
57
Orangewood Ave
Beverly Dr
Donneybrooke St
Palm Ave
Eckhoff St
Sequoia Ave
Poplar St
Bitterbush St
Sycamore Ave
Cherry Dr
Flower St
Maple Ave
Stevens St
Spruce Ave
Cedar St
Orange Grove Ave
Chapman Ave
Willow Ave
Arbor Way
Hemlock St
Ash St

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

FIGURE 2.17-3
Sheet 18 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Winston Rd
Omega Ave
Shirley St
Carl St
Lark Ellen Ln
Sunkist St
Sunkist Gdns
Page Ct
Cerritos Ave
Harris Ct
Stadium View Ave
Howell Ave
Sinclair St
57
45
44
Orangetree
Douglass Rd
Katella Ave
Eckhoff St
Business Center Dr
Collins Ave
Commerce St
Struck Ave
Main St

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
Non-jurisdictional
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

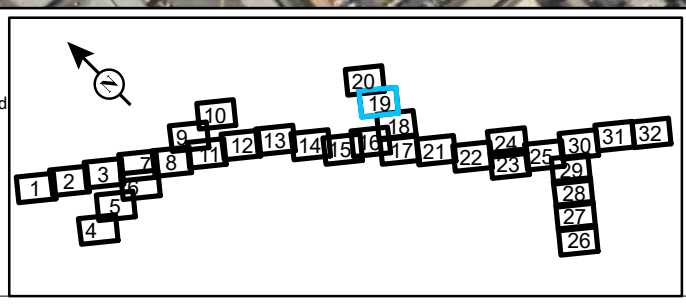


FIGURE 2.17-3
Sheet 19 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

0 200 400
FEET

SOURCE: Google (2021)

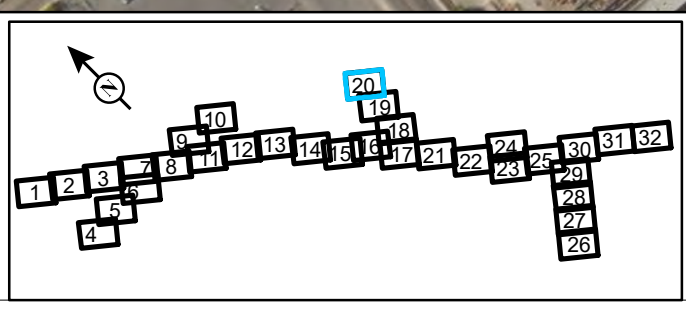


FIGURE 2.17-3
Sheet 20 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/
Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

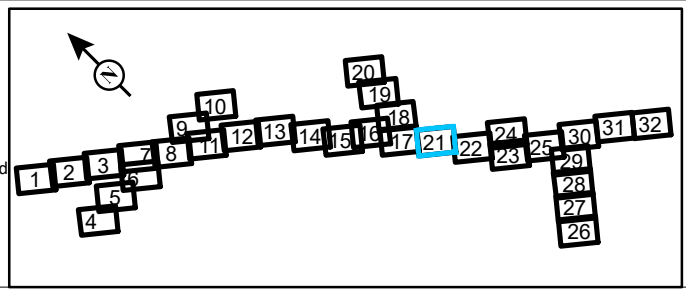
This page intentionally left blank

Project Footprint
Biological Study Area

Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed
USACE Wetland WOTUS / RWQCB Wetland WOTS

0 200 400
FEET



SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3
Sheet 21 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed
USACE Wetland WOTUS / RWQCB Wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

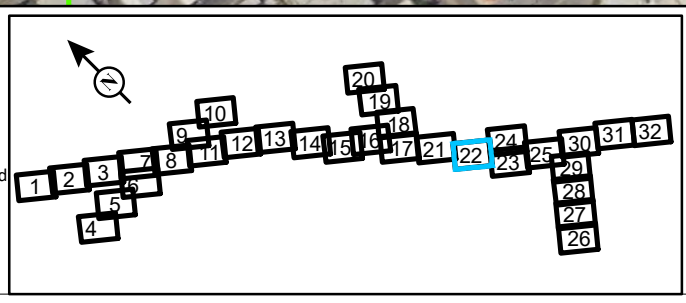


FIGURE 2.17-3
Sheet 22 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

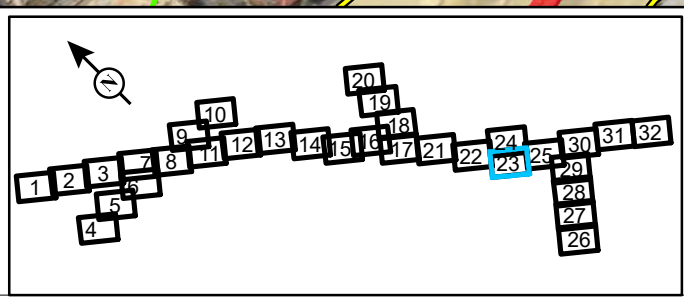


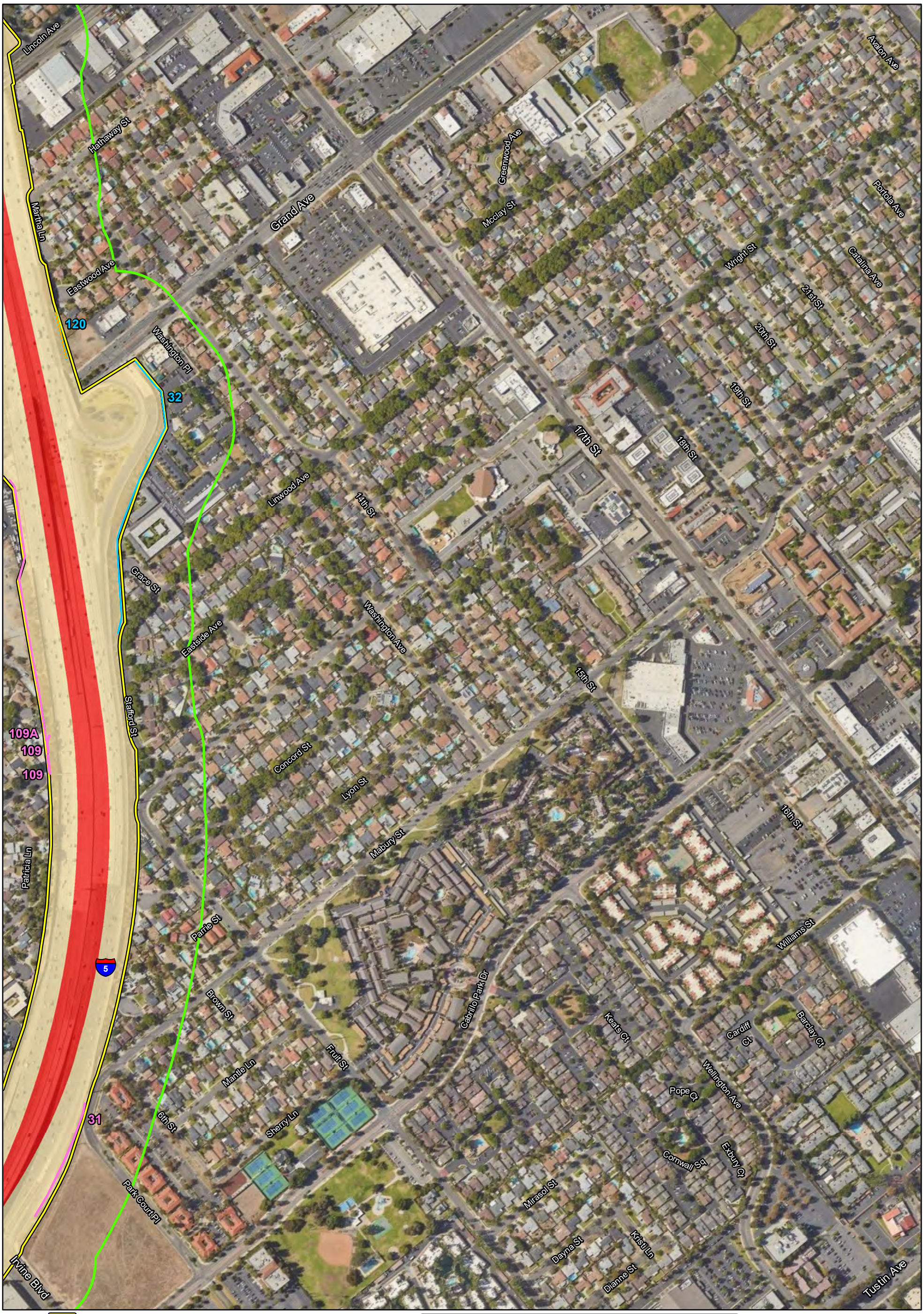
FIGURE 2.17-3
Sheet 23 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank



Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

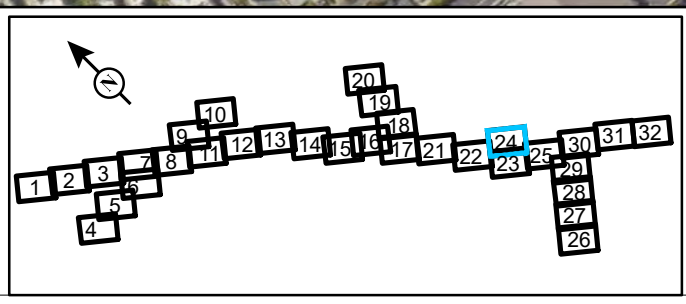


FIGURE 2.17-3
Sheet 24 of 32

I-5 Managed Lanes Project (Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

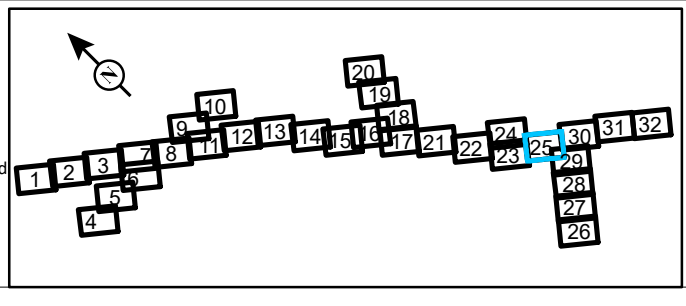


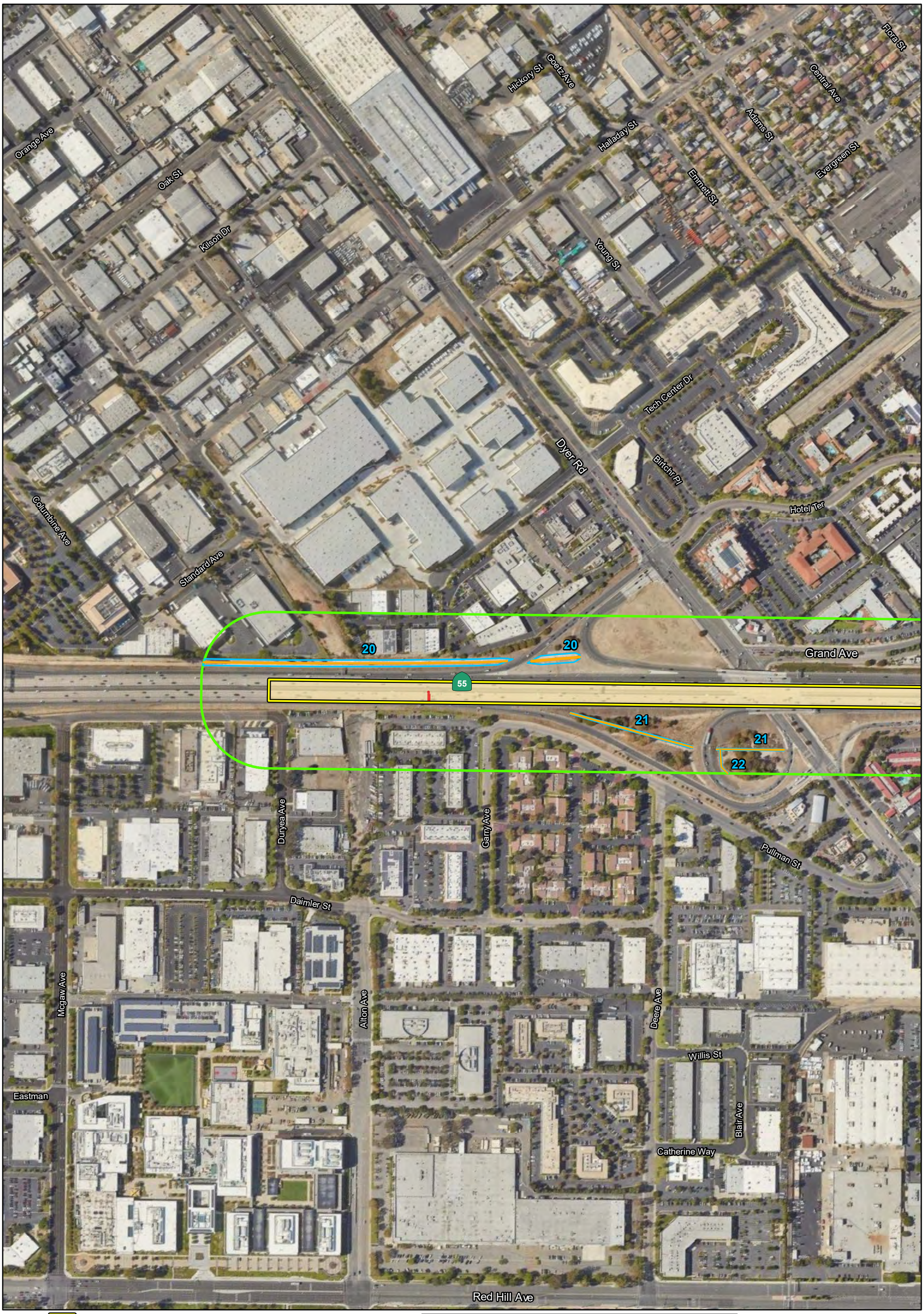
FIGURE 2.17-3
Sheet 25 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank



SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

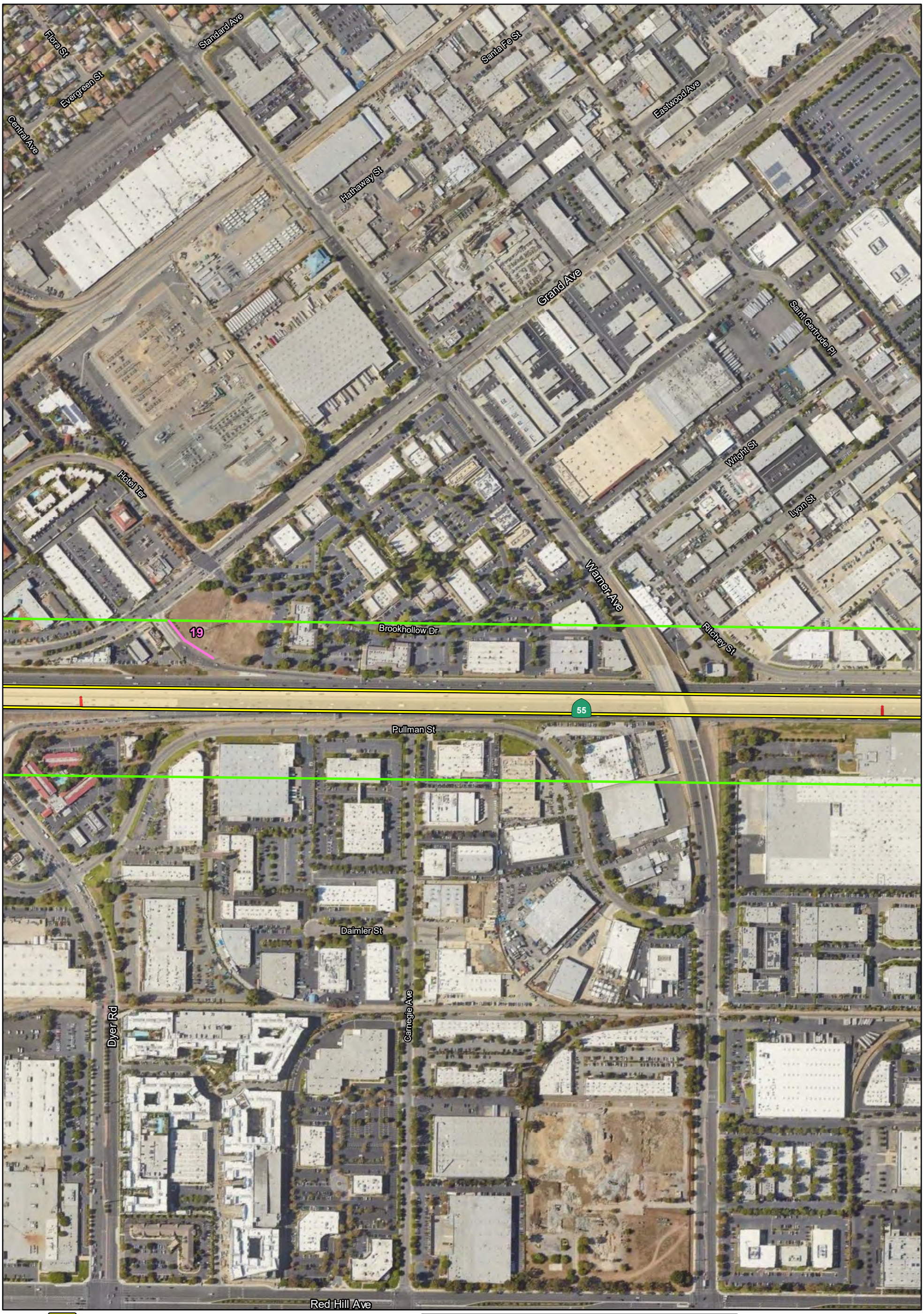
FIGURE 2.17-3
Sheet 26 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4

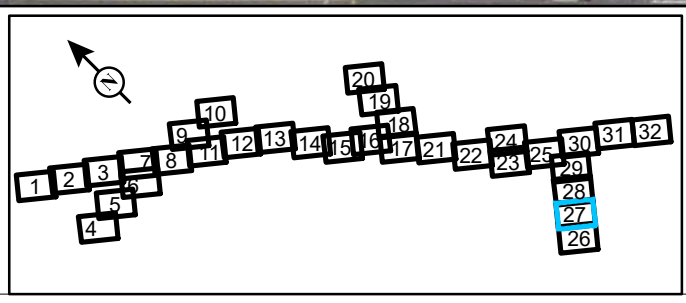
EA No. 0Q950

This page intentionally left blank



Project Footprint
Biological Study Area
Impacts
Permanent
Temporary
Delineated Drainage Features
Non-jurisdictional

0 200 400
FEET



SOURCE: Google (2021)

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

FIGURE 2.17-3
Sheet 27 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

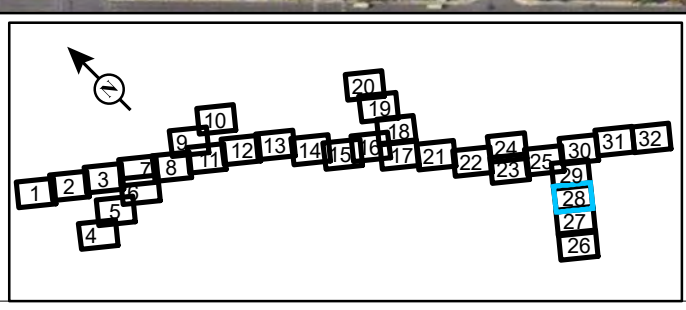
Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET



SOURCE: Google (2021)

FIGURE 2.17-3
Sheet 28 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

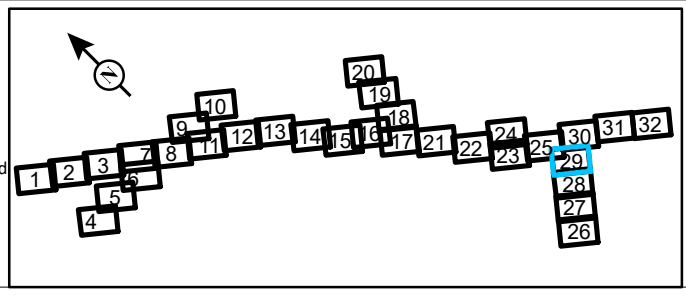


FIGURE 2.17-3
Sheet 29 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS

0 200 400
FEET

SOURCE: Google (2021)

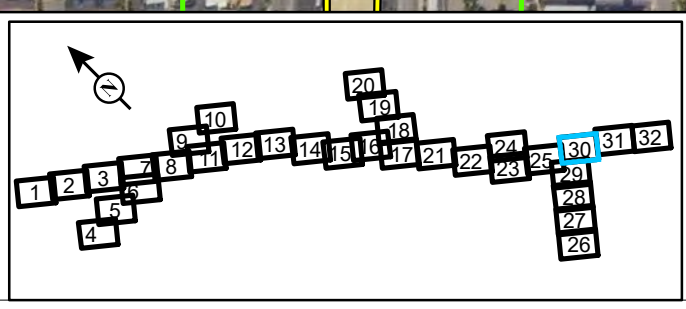


FIGURE 2.17-3
Sheet 30 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank

Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
Non-jurisdictional
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

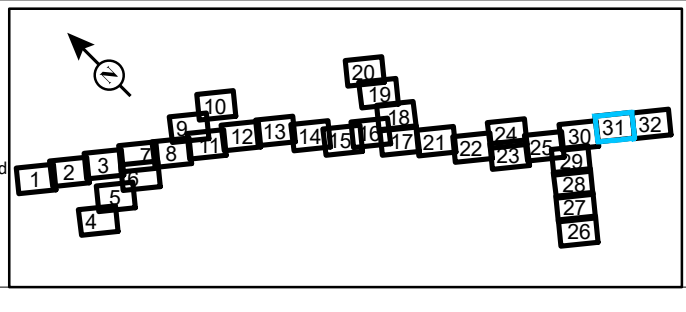


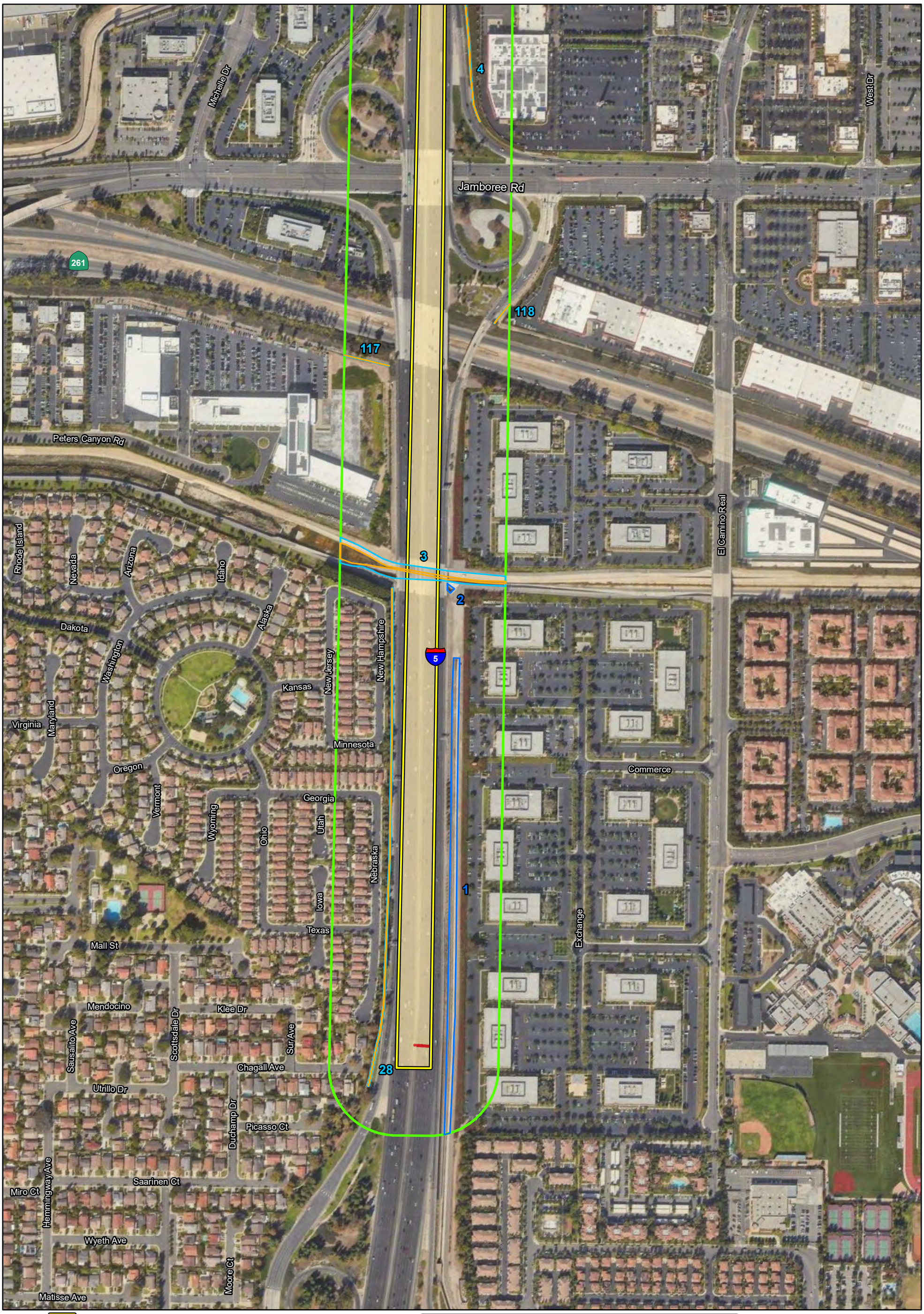
FIGURE 2.17-3
Sheet 31 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank



Project Footprint
Biological Study Area
Impacts
Permanent
Temporary

Delineated Drainage Features
CDFW Streambed (Bank-to-Bank)
USACE Non-wetland WOTUS / RWQCB Non-wetland WOTS
USACE WOTUS /RWQCB Non-wetland WOTS/CDFW Streambed

0 200 400
FEET

SOURCE: Google (2021)

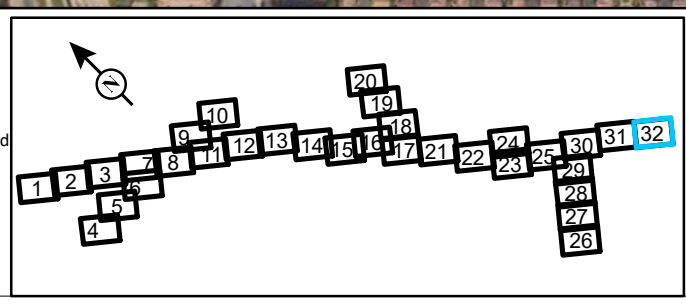


FIGURE 2.17-3
Sheet 32 of 32

I-5 Managed Lanes Project
(Red Hill Avenue to Orange County/ Los Angeles County Line)

Jurisdictional Drainage Features
Alternative 4
EA No. 0Q950

I:\WSP2203.07\GIS\MXD\Bio\CEQA\JD_Impacts_CEQA_Alt4.mxd (3/22/2023)

This page intentionally left blank