Exhibit C

CEQA/NEPA Documentation

FILED
07/22/25
04:59 PM
A2507011

Exhibit C6 – NEPA Re-validation No. 2

NEPA/CEQA RE-VALIDATION FORM

DIST-CO-RTE: 12/Ora/Orange County
PM/PM:
EA or Fed-Aid Project No.: ATPL-5955 (112)
Other Project No. (specify): N/A
Project Title: OC Loop Segments O, P, and Q Coyote Creek Bikeway Project
Environmental Approval Type: CE
Date Approved: Original 2/25/21, 1st Revalidation 10/06/21
Reason for Consultation (23 CFR 771.129), check one: ☐ Project proceeding to next major federal approval ☒ Change in scope, setting, effects, mitigation measures, requirements ☐ 3-year timeline (EIS only) ☐ **N/A** (Re-Validation for CEQA only)
Description of Changed Conditions: *Briefly describe the changed conditions or new information on page 2. Append continuation sheet(s) as necessary. Include a revised Environmental Commitments Record (ECR) when applicable.*

NEPA CONCLUSION - VALIDITY

Based on an examination of the changed conditions and supporting information: (Check ONE of the three statements below, regarding the validity of the original document/determination (23 CFR 771.129). If document is no longer valid, indicate whether additional public review is warranted and whether the type of environmental document will be elevated.)

☐ **The original environmental document or CE remains valid. No further documentation will be prepared.**

☒ **The original environmental document or CE is in need of updating; further documentation has been prepared and ☒ is included on the continuation sheet(s) or ☒ is attached. With this additional documentation, the original ED or CE remains valid.**
Additional public review is warranted (23 CFR 771.111(h)(3)) ☐ Yes ☒ No

☐ **The original document or CE is no longer valid.**
Additional public review is warranted (23 CFR 771.111(h)(3)) ☐ Yes ☐ No
Supplemental environmental document is needed. ☐ Yes ☐ No
New environmental document is needed. ☐ Yes ☐ No (If "Yes," specify type:)

CONCURRENCE WITH NEPA CONCLUSION

I concur with the NEPA conclusion above.

for Kedest Ketsela — 9/10/24
Signature: Environmental Branch Chief Alben Phung — Date

Jonathan Lawhead — 09/12/2024
Signature: Project Manager/DLAE — Date

NEPA/CEQA RE-VALIDATION FORM

CEQA CONCLUSION (Only mandated for projects on the State Highway System.)

Based on an examination of the changed conditions and supporting information, the following conclusion has been reached regarding appropriate CEQA documentation: (Check ONE of the five statements below, indicating whether any additional documentation will be prepared, and if so, what kind. If additional documentation is prepared, attach a copy of this signed form and any continuation sheets.)

☐ **Original document remains valid. No further documentation is necessary.**

☐ **Only minor technical changes or additions to the previous document are necessary.**
☐ An addendum has been or will be prepared and is ☐ included on the continuation sheets or ☐ will be attached. It need not be circulated for public review. (CEQA Guidelines, §15164)

☐ **Changes are substantial, but only minor additions or changes are necessary to make the previous document adequate. A Supplemental environmental document will be prepared, and it will be circulated for public review. (CEQA Guidelines, §15163)**

☐ **Changes are substantial, and major revisions to the current document are necessary. A Subsequent environmental document will be prepared, and it will be circulated for public review. (CEQA Guidelines, §15162)**
(Specify type of subsequent document, e.g., Subsequent FEIR):

☐ **The CE is no longer valid. New CE is needed. ☐ Yes ☐ No**

CONCURRENCE WITH CEQA CONCLUSION

I concur with the CEQA conclusion above.

N/A	
Signature: Environmental Branch Chief	Date
N/A	
Signature: Project Manager/DLAE	Date

CONTINUATION SHEET(S)

Address only changes or new information since approval of the original document and only those areas that are applicable. Use the list below as section headings as they apply to the project change(s). Use as much or as little space as needed to adequately address the project change(s) and the associated impacts, minimization, avoidance and/or mitigation measures, if any.

Changes in project design, e.g., scope change; a new alternative; change in project alignment.

Due to public comments and discussions with the railroads and the U.S. Army Corps of Engineers (USACE), proposed project changes have occurred. In summary, the new proposed changes include design and alignment changes at various locations, identification of geotechnical borings/testing locations, new proposed temporary and permanent easements, and new temporary construction staging/work areas. See **Attachment 1** for design changes and new easements plan pages.

Design changes include:

- Location and height of North Fork Bridge in Cerritos;
- Realignment of switchback on Caltrans property north of Union Pacific Railroad (UPRR);
- Realignment of Trojan Way driveway;
- Slight realignment of bike path just east and west of the Burlington Northern Santa Fe (BNSF) Railway Lead Undercrossing; and
- Realignment of bike path and truss bridge across the BNSF/Metrolink/Coyote Creek crossing.

New additional easements include: Temporary Construction Easements (TCEs), Permanent Aerial Easement (PAE), Permanent Subsurface Easement (PSUBE), and Permanent Maintenance Easements (PME).

Borings/Corings locations identified. Earthwork and borings at Los Angeles County Flood Control District (LACFCD) Parcel and four additional bridge/tunnel locations. Excavations up to 18.5 feet in depth were evaluated for the Paleo and archeological reports in the original documents but design soils sample borings and column corings are now necessary to be done to deeper depths for the bridge column locations. Excavation for small diameter (8-inch) soils borings are expected to reach as much as 120 feet in depth and actual bridge column corings may reach 100 feet in depth with diameters ranging from 24 inches to 84 inches which exceeds excavation depths noted in the original environmental documents. See **Attachment 2** for the locations of proposed geotechnical borings and access.

Additional temporary work areas were identified, including minor public right of way expansions for associated work areas, shallow bioswales, traffic control and striping. This also includes three additional in-channel work areas, one of which will be used for a crane to erect the truss bridge over Coyote Creek just north of the BNSF/Metrolink.

Below is a list of changes by Segment. Detailed descriptions are provided in the NEPA Design Change Analysis Matrix included as **Attachment 3** and the CEQA Design Change Analysis Matrix included as **Attachment 4**. Each change listed below includes a Sheet # that corresponds to the specific Area of Potential Effects (APE) mapbook sheet(s) to reference where the change is located. The APE mapbook is discussed further below.

Segment O

Design Changes

- Cerritos Bridge: Height - 6 feet to 12 feet and deck height increased 18 inches. Cerritos Bridge Lateral Relocation 25 feet south (Sheet #1)
- Block wall(s) nine (9) feet in height on LACFCD property installed adjacent to existing back wall(s). (Sheet #1)

Geotechnical

- One Cone Penetrometer Test (CPT) Sounding Only at North Fork for Cerritos Bridge (Sheet #1)
- One Geotechnical Boring Only at North Fork for Cerritos Bridge (Sheet #1)

Easements

- Cerritos Bridge TCE (Sheet #1)
- Artesia Blvd (south of) TCE (Sheets #4 and #5)

Additional temporary work areas

- Channel junction corner work area (Sheet #1)
- Valley View Blvd. crossing north side (Sheet #2)
- LACFCD r/w north side bioswale (Sheets #2,3,4)
- Artesia Blvd crossing (Sheets #4 and 5)

Segment P

Design Changes

- Realignment of switchback on Caltrans property just north of UPRR.
- Likely Billboard Relocation at S. Firestone Blvd and consequent permanent license or permanent easement relocation (Sheet #7).
- Realignment of Trojan Way driveway

Geotechnical

- Four Cone Penetrometer Test (CPT) Sounding/Bridge Column (on new bikeway alignment between Artesia and UPRR)
- Five Geotechnical Boring/Bridge Column (on new bikeway alignment from north of Artesia to just north of UPRR)

Easements

- Artesia Blvd (north of) TCE (Sheet #5)
- Caltrans Property TCE's (Sheets #6,7)
- Permanent Aerial Easement (PAE): UPRR Industry Track (Sheet #6)
- Permanent Subsurface Easement (PSUBE): Bikeway Under I-5 Frwy (Sheet #7)
- Permanent Maintenance Easements (PME): Caltrans Property (Sheets #6, 7)

Additional temporary work areas

- Artesia Blvd crossing (Sheets #4 and 5)
- LACFCD r/w south side work area (Sheets #5,6)
- Firestone Blvd crossing (Sheet #7)
- Knott Ave. crossing (Sheet #8)

Segment Q

Design Changes

- Reorienting the southern approach to the bridge over the UPRR in the City of La Mirada from its original course parallel to the bikeway to a new course perpendicular to the latter, extending further into an adjacent vacant property under Caltrans ownership;
- Slight reorientation of the BNSF/Metrolink/Coyote Creek Channel overcrossing.
- La Mirada Blvd. Crossing Median Improvements - New Fence and fill-in the median gap
- La Mirada Blvd. Monument 2' wide x 4' tall (south side) – Relocate
- La Mirada Blvd. SCE sidewalk Cabinet (north and south side) – Relocate

Geotechnical

- Two Cone Penetrometer Test (CPT) Sounding Only (on new bikeway alignment near BNSF railroad lead)
- Two Geotechnical Boring Only (on new bikeway alignment near BNSF railroad lead)
- Four Cone Penetrometer Test (CPT) Sounding/Bridge Columns
    - (three on new bikeway and truss bridge alignment of the BNSF/Metrolink/Coyote Creek crossing, south of Stage Road)
    - (one (on truss bridge alignment north of Stage Road)
- Five Geotechnical Boring/Bridge Columns
    - (one on new bikeway and truss bridge alignment of the BNSF/Metrolink/Coyote Creek crossing, south of Stage Road)
    - (one on truss bridge alignment north of Stage Road)

Easements

- BNSF Undercrossing TCEs (Sheet # 9)
- TCE (near Dolly Rd) (Sheet # 9)
- Amberwood Apartments TCE expansion (Sheet # 13)
- TCE in APN 7001-020-039 (Sheet # 11)
- Erect Bridge Structures - In-Channel Work at BNSF Metrolink Corridor
- La Mirada Blvd. Sidewalk TCE (Sheet # 14)
- La Mirada Blvd. Permanent Sidewalk Easement (PSE)
- Permanent Aerial Easement (PAE) at BNSF Corridor
- Permanent Subsurface Easement (PSUBE) at BNSF Industry Track
- Permanent Maintenance Easements (PME):
    - BNSF Undercrossing (Sheet # 9)
    - Maintenance Access (two Dolly Road Options) (Sheet # 9)
    - APN 7001-020-039 (Sheet # 11)

Additional temporary work areas

- Knott Ave. crossing (Sheet # 8)
- LACFCD r/w triangular segment (Sheet # 11)
- LACFCD channel bottom cross channel bridge erection (Sheet # 11)
- La Mirada Blvd crossing (Sheet # 14)

List of Attachments to the 2nd CE Revalidation Form

- Attachment 1 Design changes and new easements plan pages
- Attachment 2 Geotechnical Borings and Access Maps
- Attachment 3 NEPA Design Change Analysis Matrix
- Attachment 4 CEQA Design Change Analysis Matrix
- Attachment 5 New USFWS Species List
- Attachment 6 Supplemental HPSR Package (Includes Supplemental ASR and Revised APE Map)
- Attachment 7 Supplemental Jurisdictional Delineation Memo
- Attachment 8 Supplemental Natural Environment Study (Minimal Impacts) Report
- Attachment 9 Supplemental ISA Memo
- Attachment 10 Supplemental VIA Memo

Changes in environmental setting, e.g., new development affecting traffic or air quality.

No change.

Changes in environmental circumstances, e.g., a new law or regulation; change in the status of a listed species.

A new U.S. Fish and Wildlife Service Species (USFWS) List was obtained on August 19, 2024 (See **Attachment 5**). There are four new species listed in this 2024 list compared to the last species list obtained for the 1st CE Revalidation. These include Southwestern Willow Flycatcher (*Empidonax traillii extimus*), with the status of "Endangered", Southwestern Pond Turtle (*Actinemys pallida*) with the status of "Proposed Threatened", Western Spadefoot (*Spea hammondii*) with a status of "Proposed Threatened", and Monarch Butterfly (*Danaus plexippus*) with the status of "Candidate". Only the Southwestern Willow Flycatcher has final critical habitat designated for it. The USFWS species list letter stated that the project location does not overlap the critical habitat. No impacts to these species are expected as discussed below.

Changes to environmental impacts of the project, e.g., a new type of impact, or a change in the magnitude of an existing impact.

No changes would occur to Noise, Air Quality Conformity Findings, Wetland Protection, NOAA Fisheries, Essential Fish Habitat, Section 4(f) Properties, Section 6(f) Properties, Coastal Zone, or Coast Guard – Bridge Over Navigable Waters of the U.S., and thus these resources will not be discussed further. Resources that required additional analysis due to the proposed project changes are discussed below.

- Cultural Resources: (No change) To address the proposed project changes, a Supplemental Historic Property Survey Report (HPSR) (Bai Tang, 2024) was prepared February 16, 2024 (see **Attachment 6**). It includes an updated Area of Potential effects (APE) map (June 26, 2023), a Supplemental Historical Resources Evaluation Report (HRER) (Bai Tang and Terri Jacquemain, February 16, 2024), and a Supplemental Archaeological Survey Report (ASR) (O'Neil, March 4, 2024). The supplemental HPSR states there are cultural resources within the additional APE that were evaluated as a result of the project changes and are not eligible for inclusion in the National Register of Historic Places (NRHP). No historic resources and no archaeological resources would be affected as a result of the project changes.

- Waters, Wetlands: (Minimal increase of temporary impacts) There would be an increase of approximately 0.51 acre of temporary impacts to waters of the U.S. The increase of impacts is due to the addition of temporary work areas and staging needed for construction. In segment O additional temporary work areas are needed for installation of the first bridge at the west end in the City of Cerritos and various small areas along the channel. In Segment P, temporary areas are needed near S. Firestone Boulevard. In Segment Q, the additional temporary work areas include a small area at the BNSF lead track

and an area within the channel for installation of the BNSF/Metro Link Railroad crossing and bridge over Coyote Creek just north of that. There would be no change to the type of permits required, which include a Clean Water Act Section 404 Nationwide Permit, a Section 408 Authorization from the USACE to alter a "Civil Works" project, and a CWA Section 401 Water Quality Certification. Refer to the supplemental jurisdictional delineation memo included as **Attachment 7**.

- Biology: (No changes to impacts) The project changes would have approximately the same biological impacts and would not require new or additional mitigation. Refer to the 2nd Supplemental Natural Environment Study (Minimal Impacts) Report included as **Attachment 8**. A new U.S. Fish and Wildlife Service Species List was obtained on August 19, 2024 (**Attachment 5**). There are four new species listed in this 2024 list compared to the last species list obtained for the 1st CE Revalidation. The new species on the list include:

    - Southwestern Willow Flycatcher (*Empidonax traillii extimus*) with the status of "Endangered",
    - Southwestern Pond Turtle (*Actinemys pallida*) with the status of "Proposed Threatened",
    - Western Spadefoot (*Spea hammondii*) with a status of "Proposed Threatened", and
    - Monarch Butterfly (*Danaus plexippus*) with the status of "Candidate".

    Only the Southwestern Willow Flycatcher has final critical habitat designated for it. The USFWS species list letter stated that the project location does not overlap the critical habitat.

    Three of these species were already included in the original 2020 Natural Environment Study (Minimal Impacts) (NESMI) on pages 7 to 9 in Appendix E2, Wildlife Special-Status Species Inventory and Potential Occurrence Determination. These pages are included as an appendix to **Attachment 8**. As explained in the **Attachment 8**, it was determined that although the BSA is located within these species' known distribution ranges, it does not contain suitable foraging or breeding habitats to support any of these species and therefore, it was determined there would be no potential for these species to occur. Although the southwestern pond turtle was not included in the 2020 NESMI, it did include the western (northern) pond turtle (*Emys marmorata*), which has the same habitat requirements as the southwestern pond turtle as shown in the 2023 federal register proposed rule included in **Attachment 8**. Based on the results of the surveys conducted for the project, there is also no potential for the southwestern pond turtle to occur as well. No impacts are expected and mitigation would not be required concerning these species.

- Floodplains: (No change) To address proposed project changes, the original draft hydraulics study was revised and used USACE Design Discharge flow rate. The Final Hydraulics Study (GHD, 2021; p. 8) concluded that the proposed project changes would have minimal impact to the water surface elevation within the channel at the proposed undercrossing. Implementation of the proposed improvements would not cause the water surface to impact existing infrastructure or tributary improvements. Therefore, development of the project would not impede or redirect flood flows. The project would have no impact and no effect in this regard.

- Hazardous Waste and Materials: (Minimal Increase of temporary impacts) A new Initial Site Assessment (ISA) was conducted by Citadel EHS (Citadel) to address the proposed project changes. The ISA 2nd Supplemental Technical Memo dated September 13, 2023 is included as **Attachment 9**. Based on Citadel's understanding of the project and the proposed changes, additional environmental concerns that were not identified in the 2020 ISA, 2020 Addendum, and 2021 Supplemental Technical Memo include the following:

- The Cerritos Bridge TCE (Segment O) consists of the surface parking lot and driveway area surrounding the commercial/industrial structure located at 17641 Fabrica Way. A LUST case was completed and closed in April 2021; however, a Covenant was recorded in 2018, indicating that any excavation work at the property will have to be approved by the LARWQCB and conducted under an appropriate and fully implemented HASP. The closed case with a Covenant represents a controlled recognized environmental concern (CREC).

- The Caltrans Property TCE and PME (Segment P) consist of vacant property previously associated with the address 14730 Firestone Boulevard and was occupied by print shops with spray booths in 2004 and 2006. The historic use of spray booth and solvent-based inks represents a recognized environmental concern (REC). In addition, the proximity to the Interstate 5 Freeway represents a REC.

- The Desman Road TCE and Chevron Property TCE consists of paved and unpaved land. The proximity to railway tracks represents a REC.

If surficial disturbance is proposed at these TCEs, Citadel recommends the preparation of a Soil Management Plan (SMP) and HASP for the Cerritos Bridge TCE; and the collection of soil and soil vapor samples for the Caltrans Property TCE and PME, Desman Road TCE, and Chevron Property TCE. Based on the findings of the soil sampling, Citadel may additionally recommend the preparation of a SMP and an aerially deposited lead plan (ADL) Plan, and the implementation of soil monitoring for volatile organic compounds (VOCs) (Citadel, 2023).

The recirculated IS/MND for the project already included these mitigation measures for other areas of the project. The recommendations from the original ISA have been incorporated as mitigation measures HAZ-1 through HAZ-3 included in the projects approved Mitigation Monitoring and Reporting Program (MMRP). Mitigation measure HAZ-1 already includes implementation of an SMP that would ensure the proper handling and disposal of contaminated soils. Implementation of mitigation measure HAZ-2, to prepare an ADL plan to manage the soils contaminated with lead during project construction, would reduce potential impacts from lead in soils to a less than significant level. Additionally, mitigation measure HAZ-3, implementation of soil monitoring for VOCs during excavation activities of the areas identified with environmental concerns would reduce potential impacts from VOCs during construction to less than significant. There would be no changes to the original mitigation measures, just the addition of these proposed TCEs. It was previously determined that these measures already included in the MMRP would reduce potential impacts to a less than significant level.

- Visual Resources (Minimal Increase of Impacts) The 2nd Supplemental Visual Impact Assessment (VIA) Memo is included as **Attachment 10**. The reorientation and slight realignment of the previously approved crossings and bridges are all within the previously approved areas analyzed and would not have a significant or substantial adverse impact. No additional lighting or substantial visual changes will occur. Reorienting of the southern approach to the bridge over the UPRR in the City of La Mirada (Segment Q) will lower the height of the bridge, reducing impacts to visual resources. The additional of the new proposed 9-foot-high block wall(s) installed on LACFCD property would be consistent with MM AES-1. Because the addition of block walls does not revise MM AES-1 or substantially revise the IS/MND, Guidelines Section 15073.5 is not triggered. Similarly, Guidelines Section 15074.1(a) is not triggered. The proposed project would adhere to the respective cities' regulations and policies regarding lighting and glare. Project impacts would remain less than significant in this regard. The project changes would not result in substantial adverse impacts to the visual environment.

- Relocation and Right-of-Way: (Minimal increase of impacts) No Relocations would be required due to the project changes. As discussed above, the project changes would require new temporary construction easements (TCEs) and slight changes to previously approved TCEs, new permanent aerial easements

(PAEs), new permanent subsurface easements (PSUBEs), and new permanent maintenance easements (PMEs). Refer to **Attachments 1, 2, and 3**.

Changes to avoidance, minimization, and/or mitigation measures since the environmental document was approved.

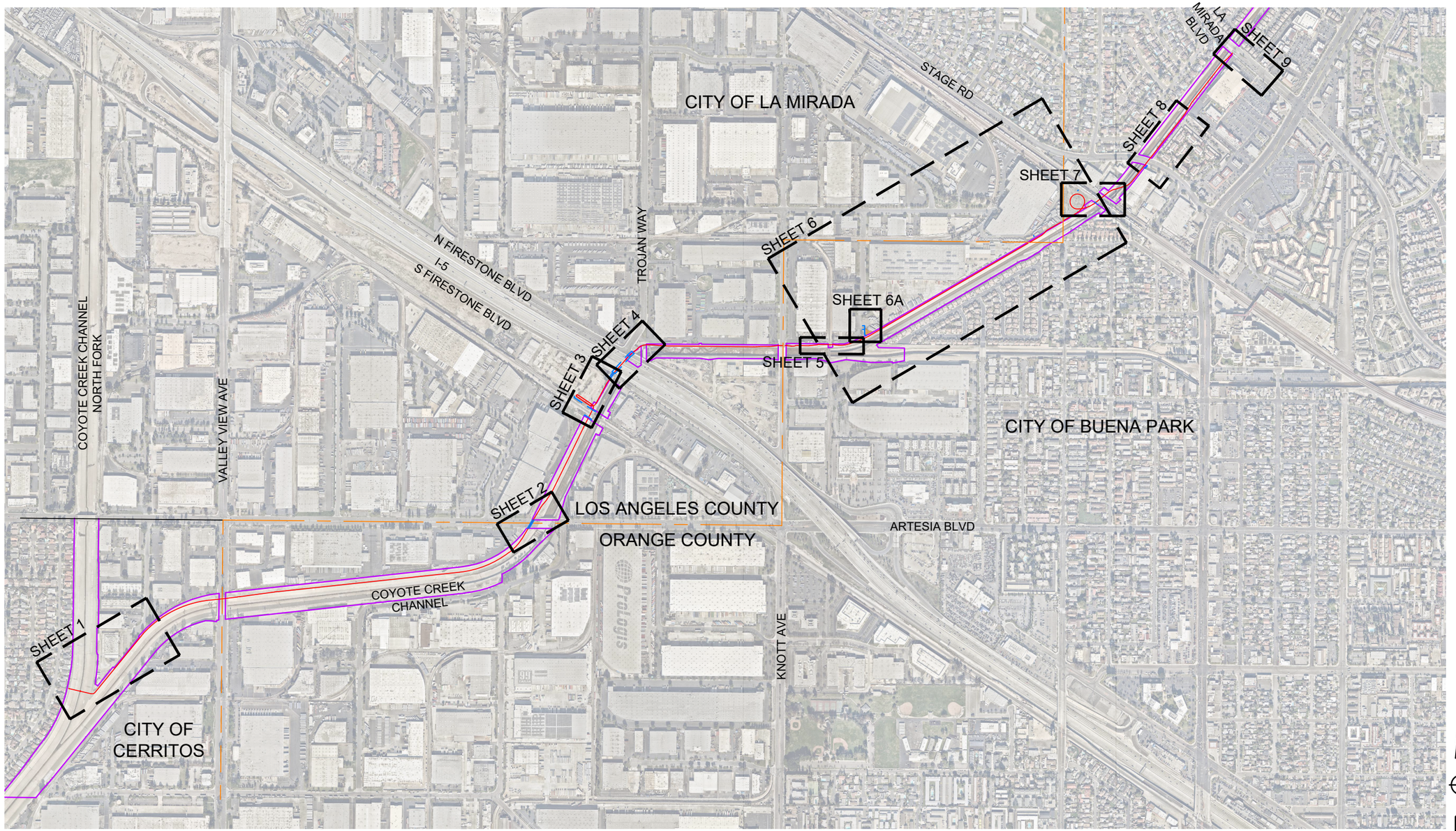
No changes.

Changes to environmental commitments since the environmental document was approved, e.g., the addition of new conditions in permits or approvals. When this applies, append a revised Environmental Commitments Record (ECR) as one of the Continuation Sheets.

No changes.

Attachment 1

DESIGN CHANGES AND NEW EASEMENTS PLAN PAGES



LEGEND

- PROPOSED BIKEWAY
- COUNTY BOUNDARY
- EASEMENT (TYPE PER PLAN)

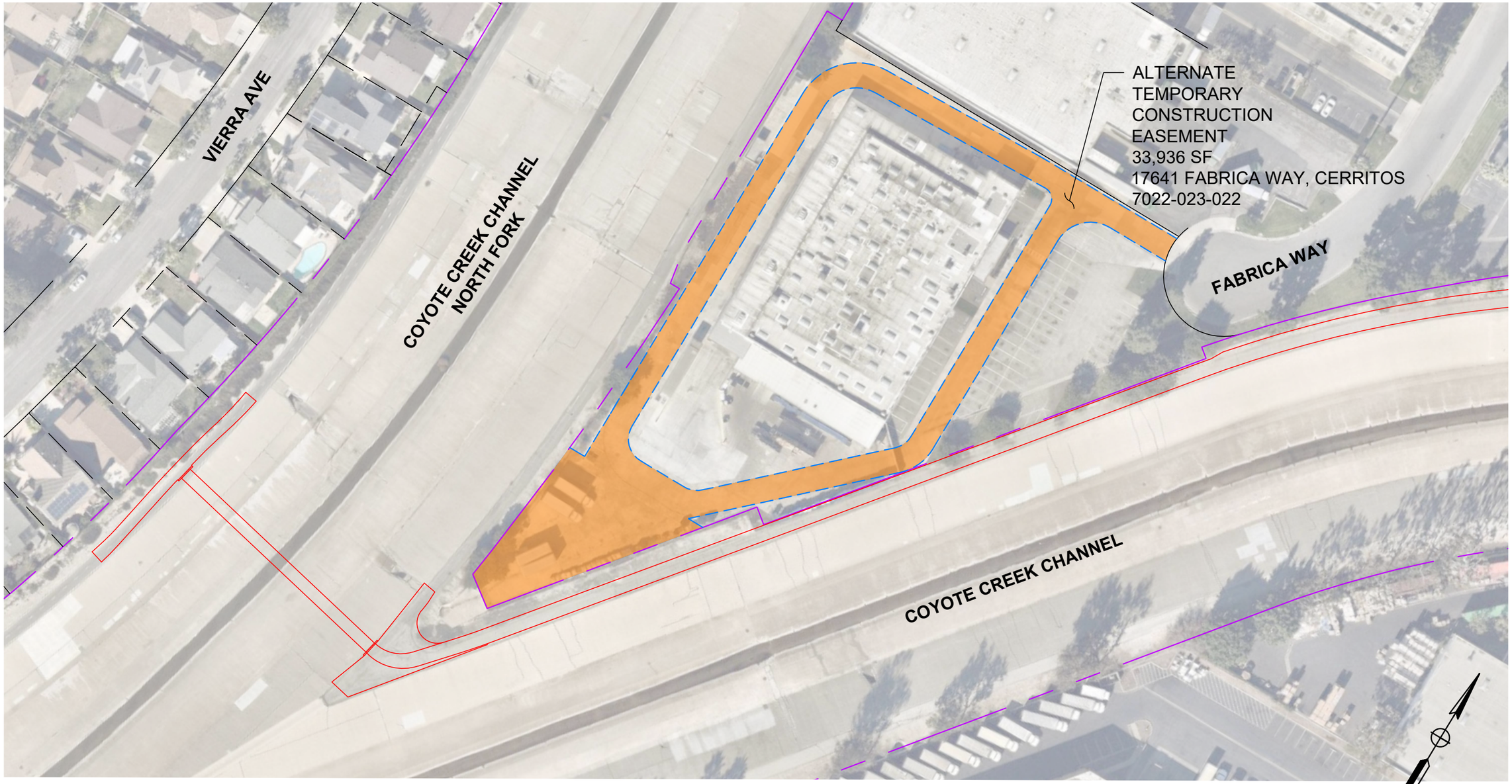
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - BIKEWAY ALONG COYOTE CREEK CHANNEL
INDEX MAP

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=80'

MARK THOMAS

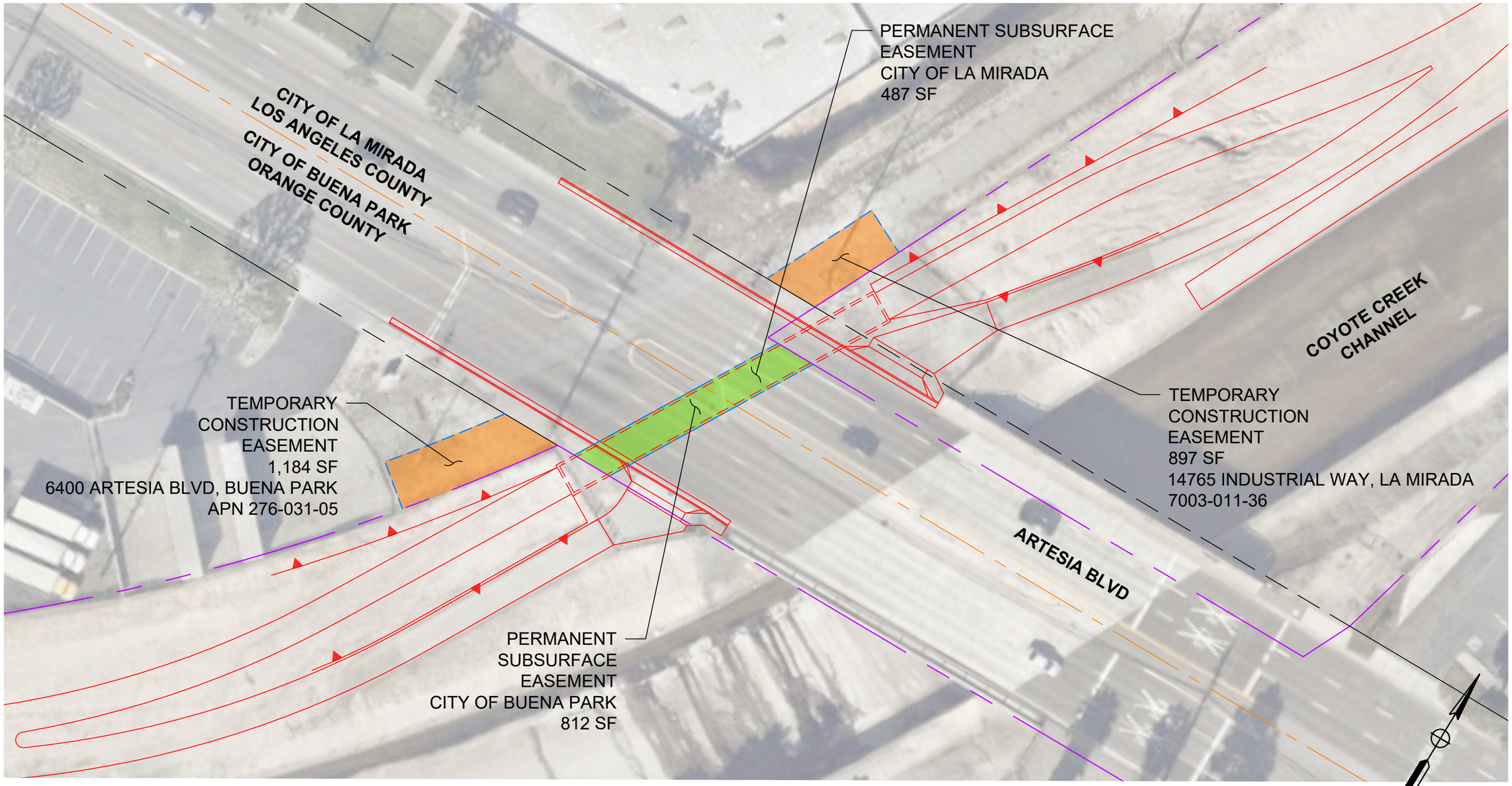
OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - COYOTE CREEK CONFLUENCE WITH NORTH FORK

SHEET 1

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

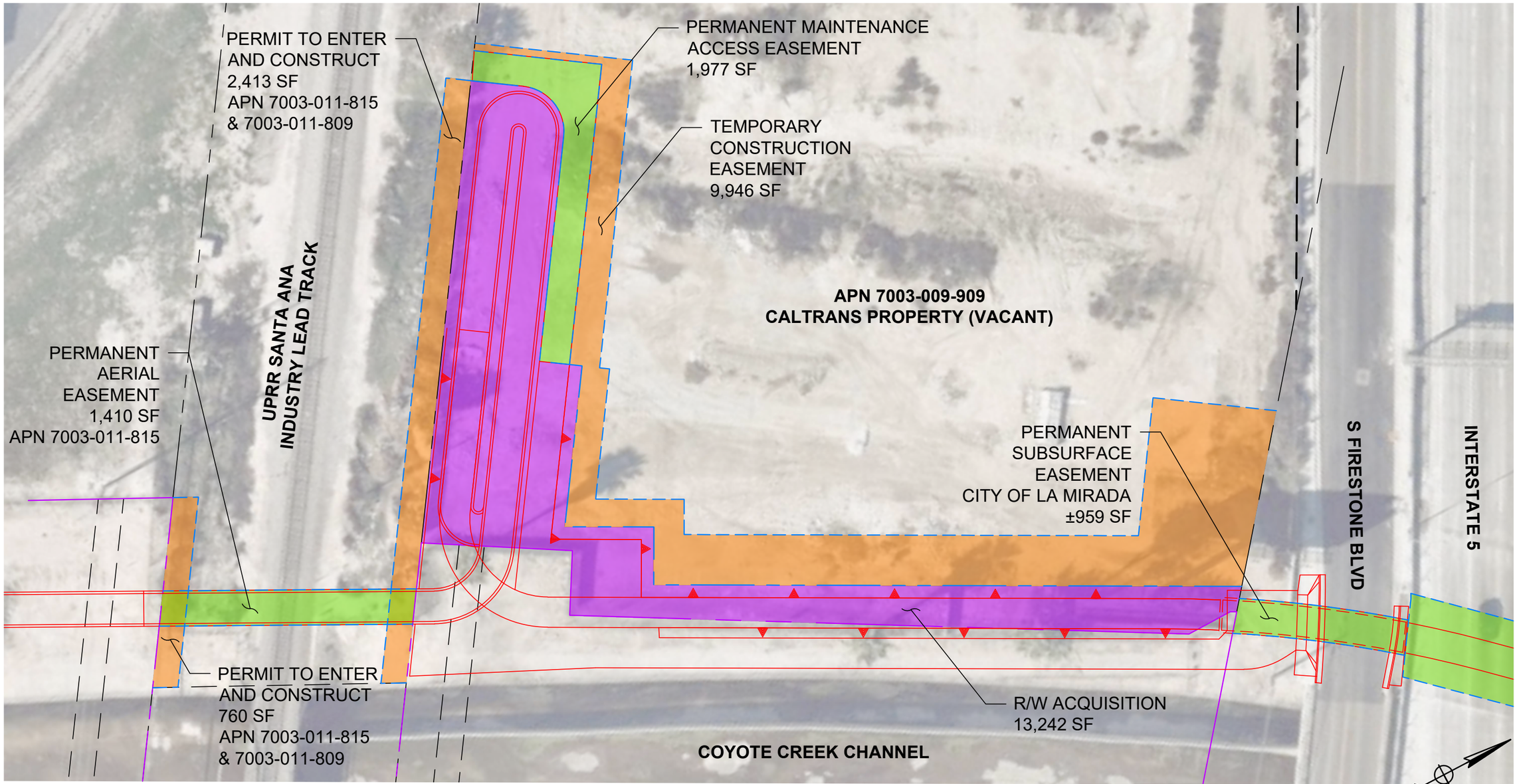
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - ARTESIA BLVD
SHEET 2

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

- PROPOSED BIKEWAY
- COUNTY BOUNDARY
- EASEMENT (TYPE PER PLAN)

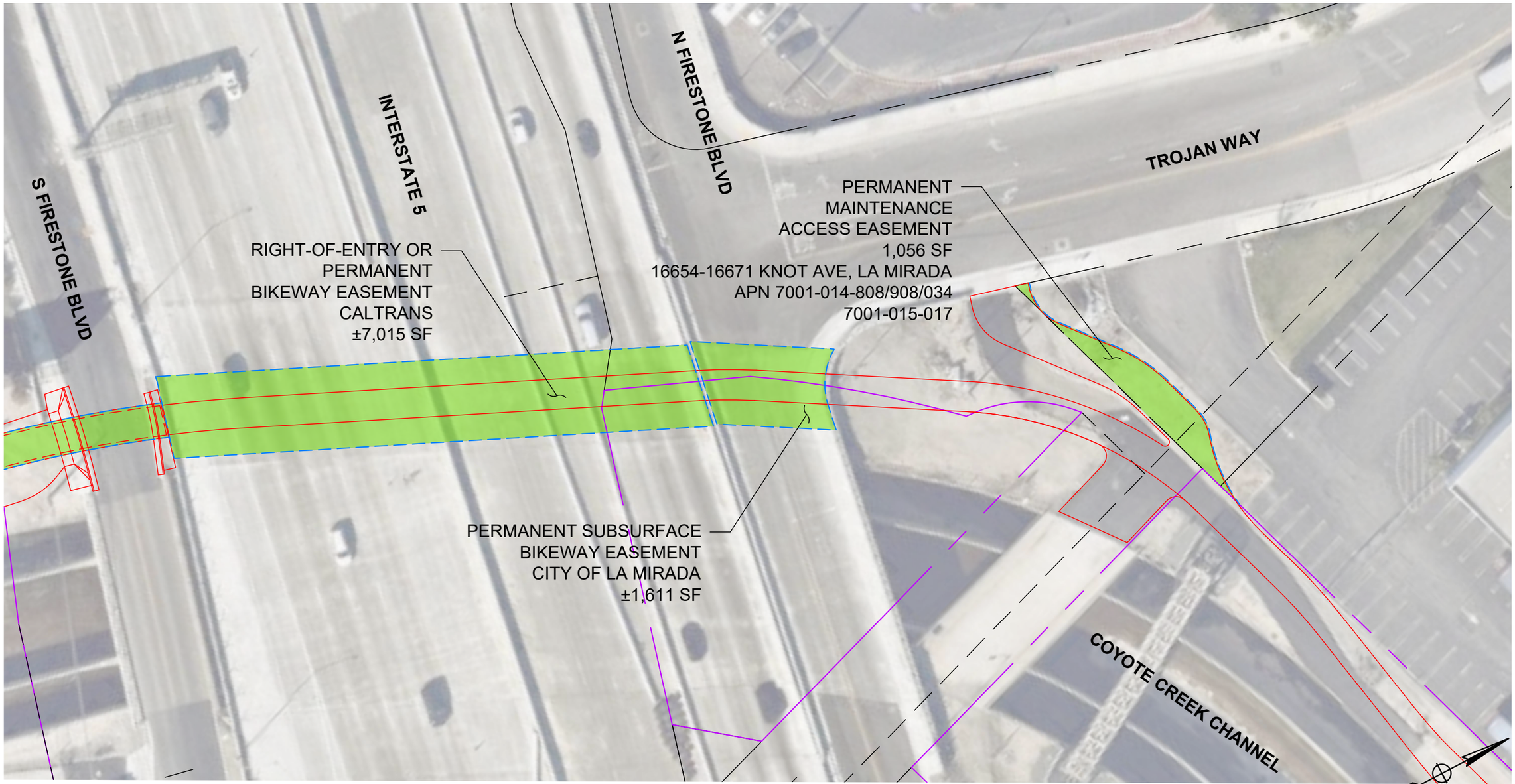
SCALE: 1"=40'

MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED RIGHT-OF-WAY & EASEMENTS - UPRR/CALTRANS R/W
SHEET 3

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits
5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

MARK THOMAS

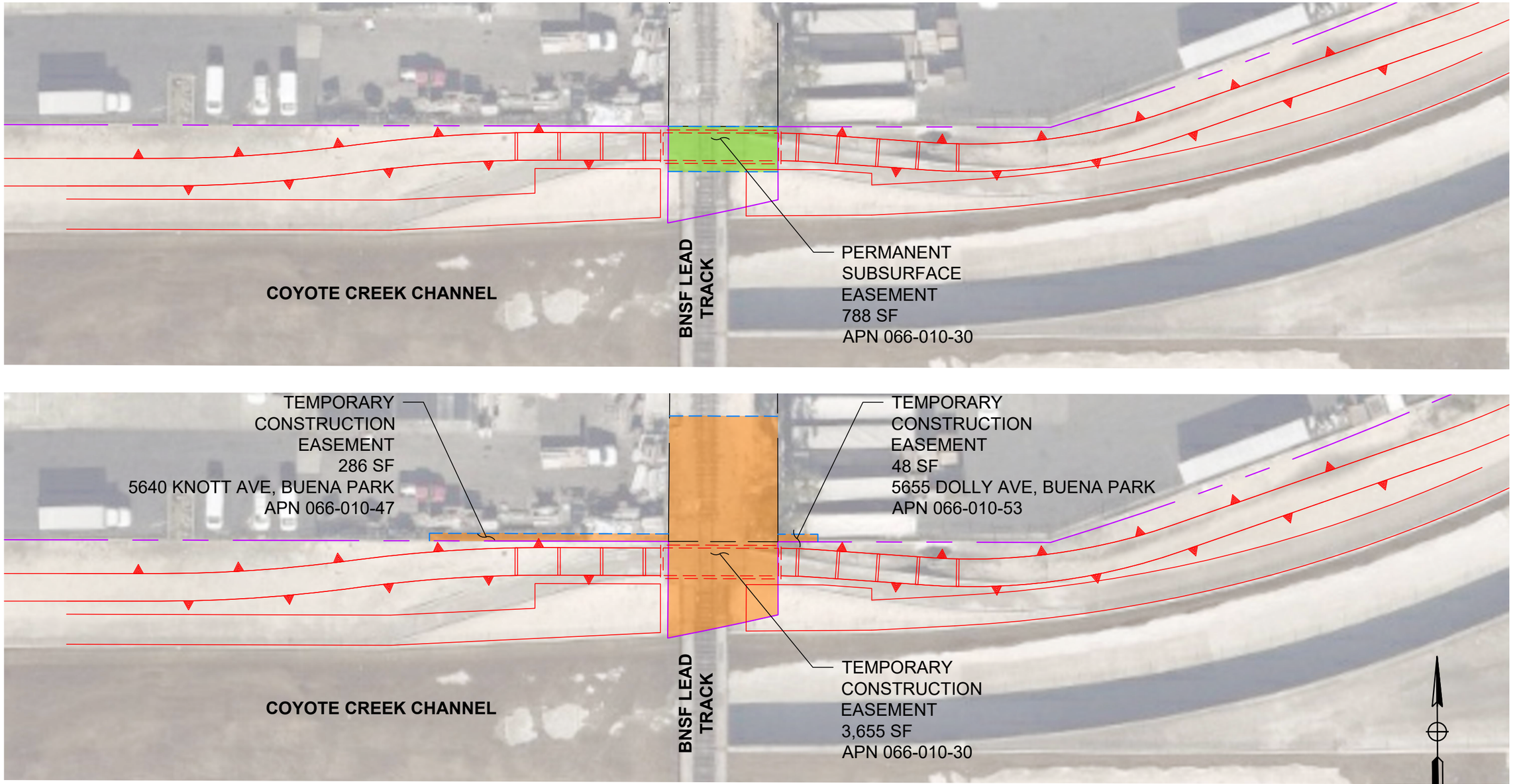
OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - CALTRANS/TROJAN WAY (03/09/2023)

SHEET 4

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

- PROPOSED BIKEWAY
- COUNTY BOUNDARY
- EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

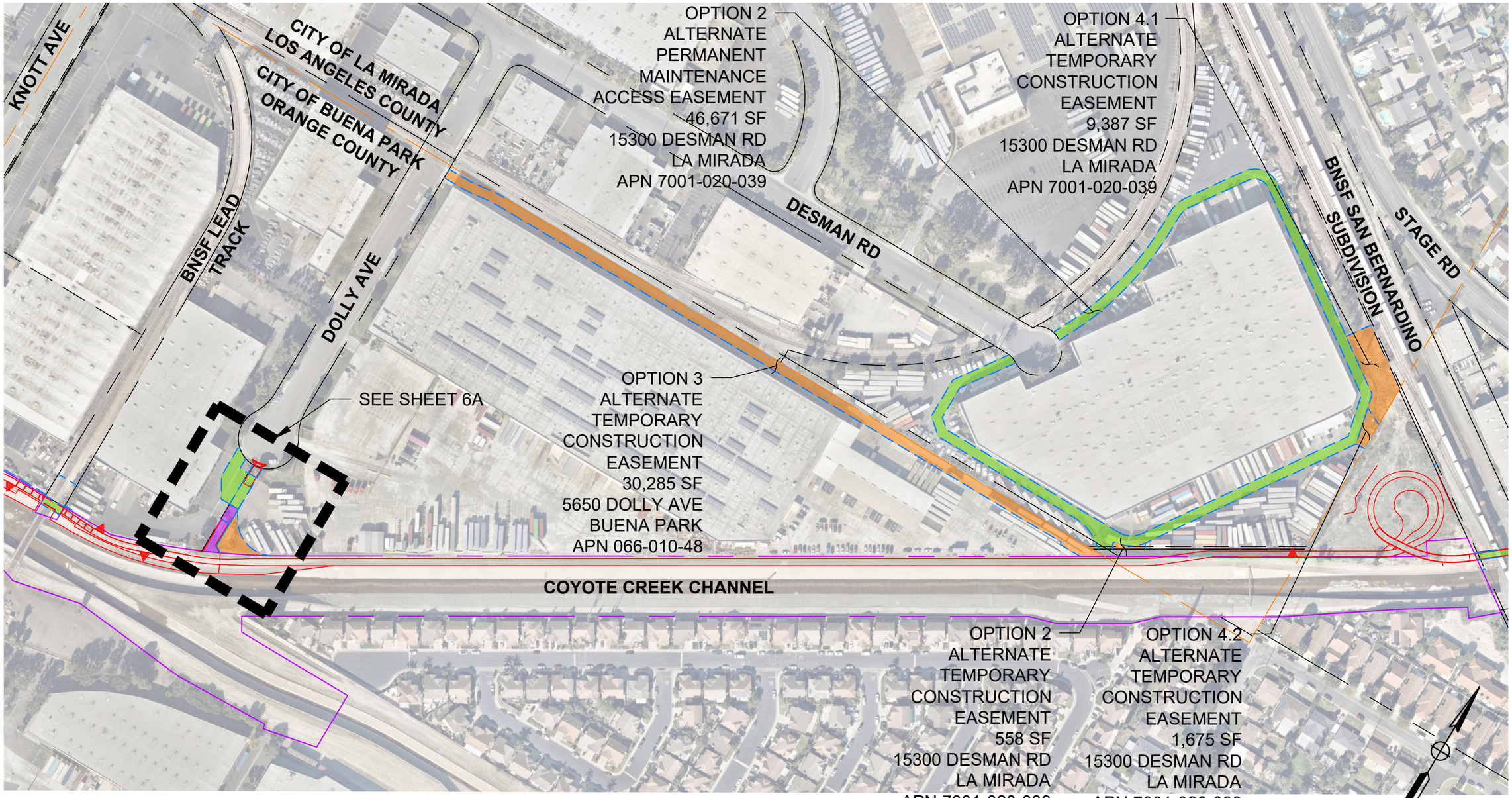
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - BNSF INDUSTRY TRACK
SHEET 5

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

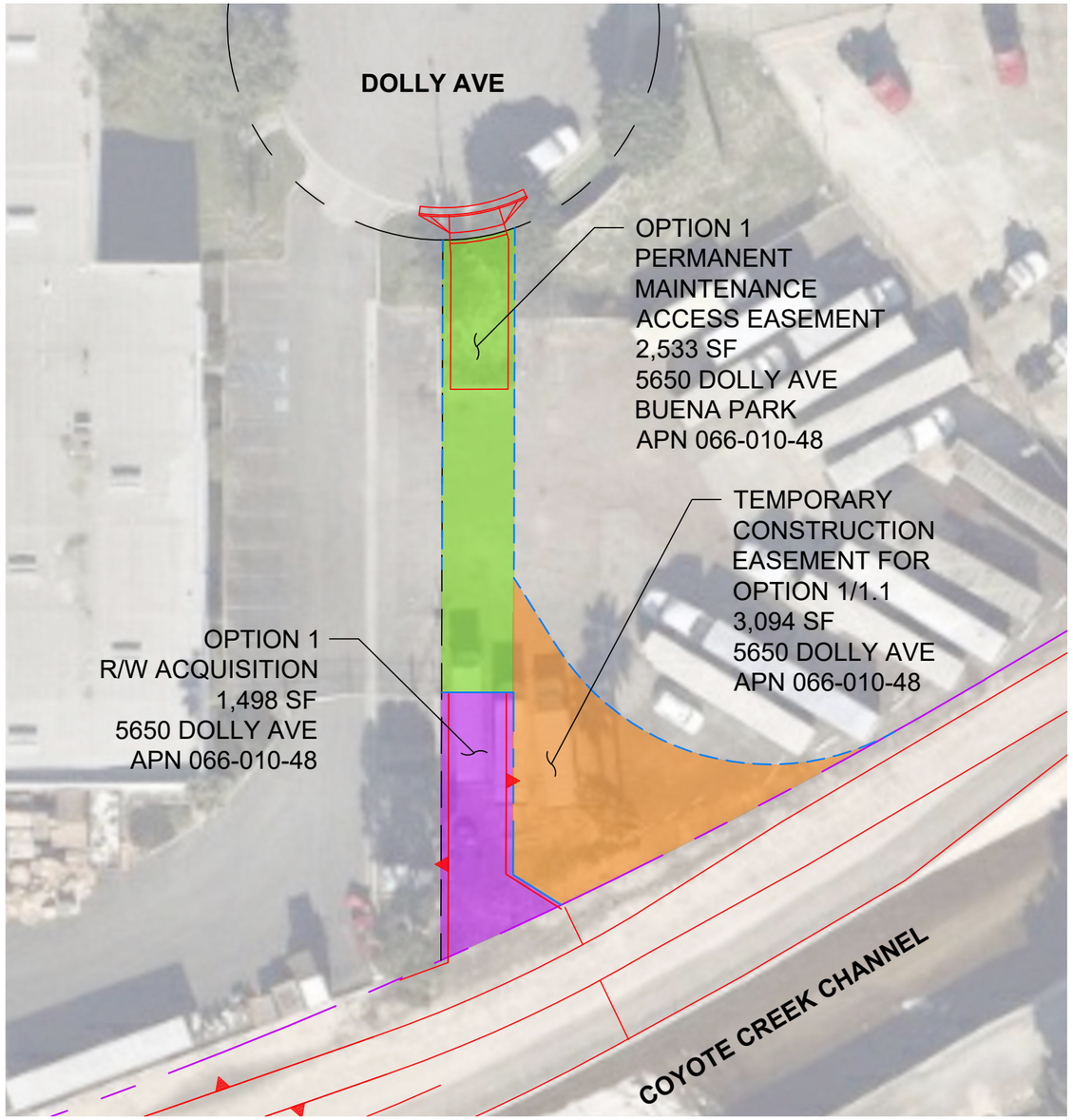
PROPOSED EASEMENT

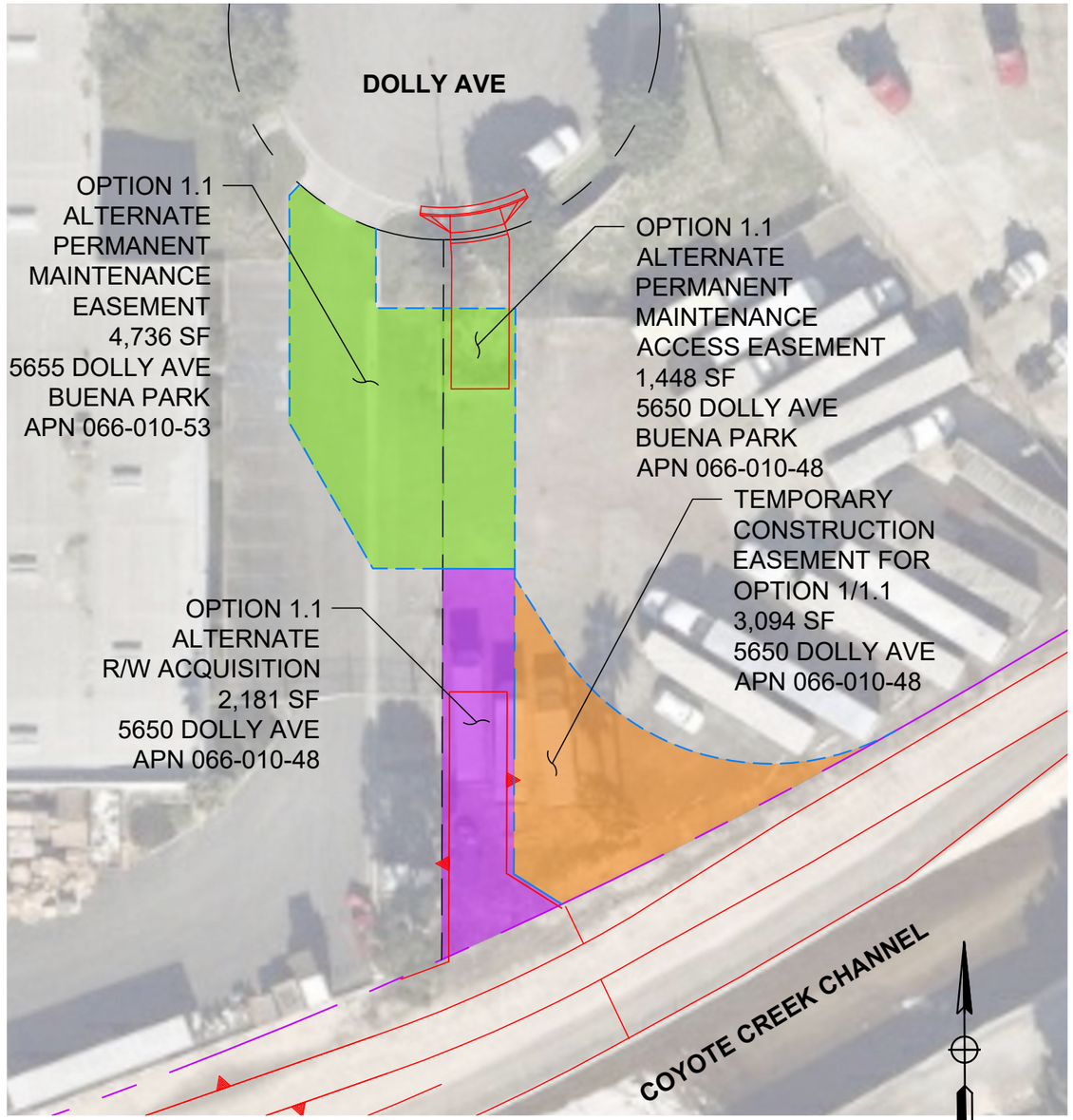
SCALE: 1"=200'

MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - DOLLY AVE/DESMAN RD
SHEET 6





LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

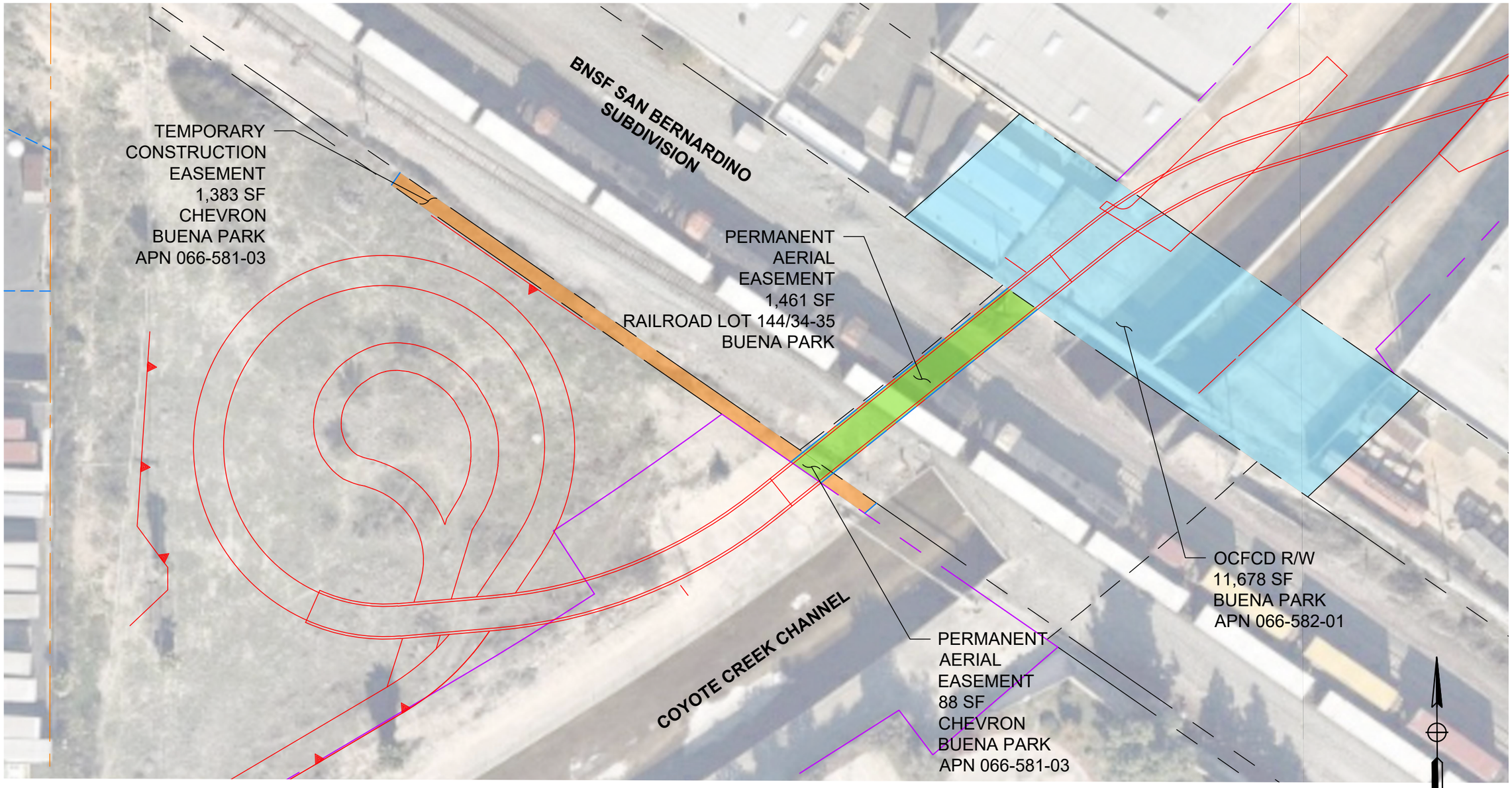
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - DOLLY AVE
SHEET 6A

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

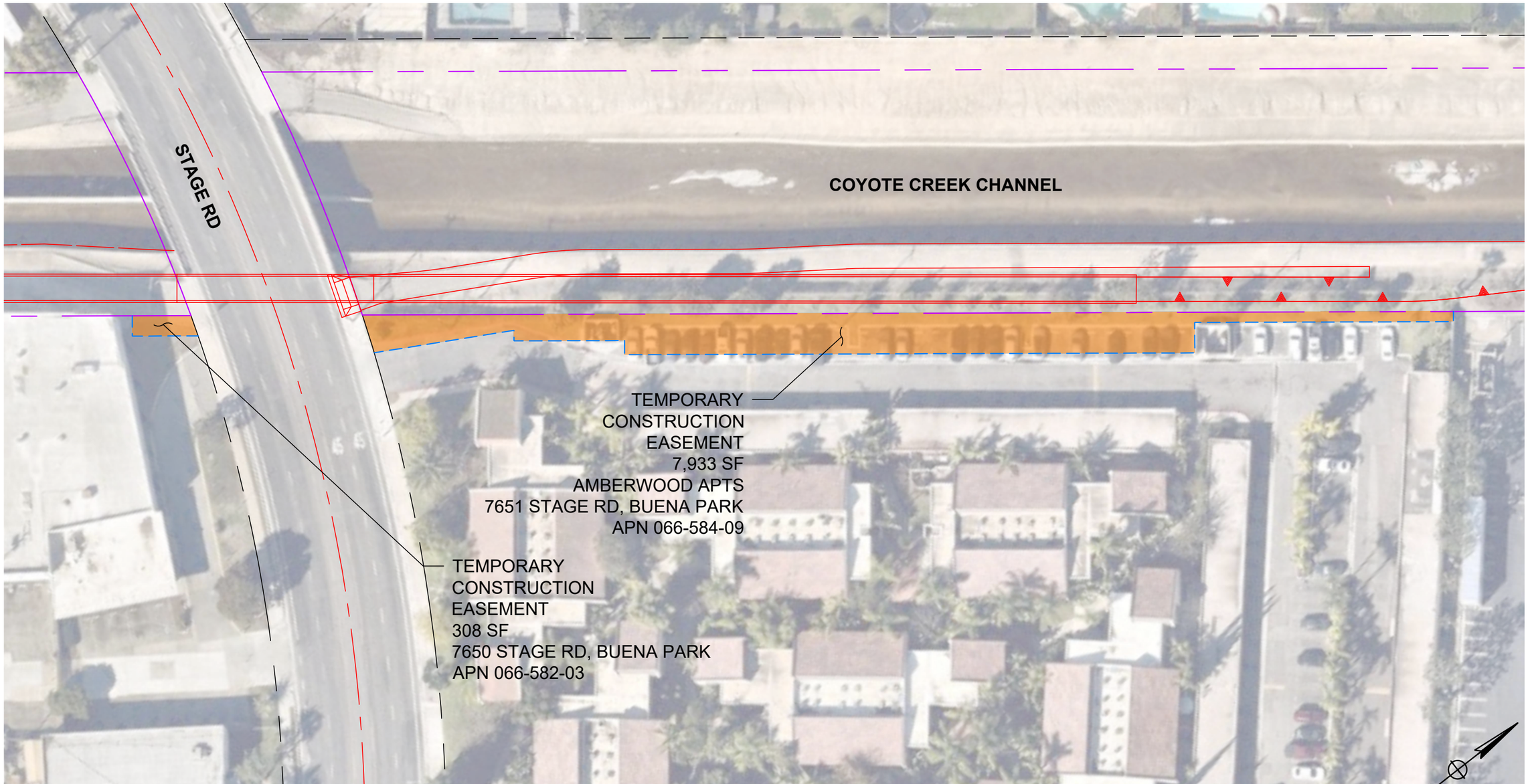
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - BNSF CORRIDOR
SHEET 7

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

8/15/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=50'

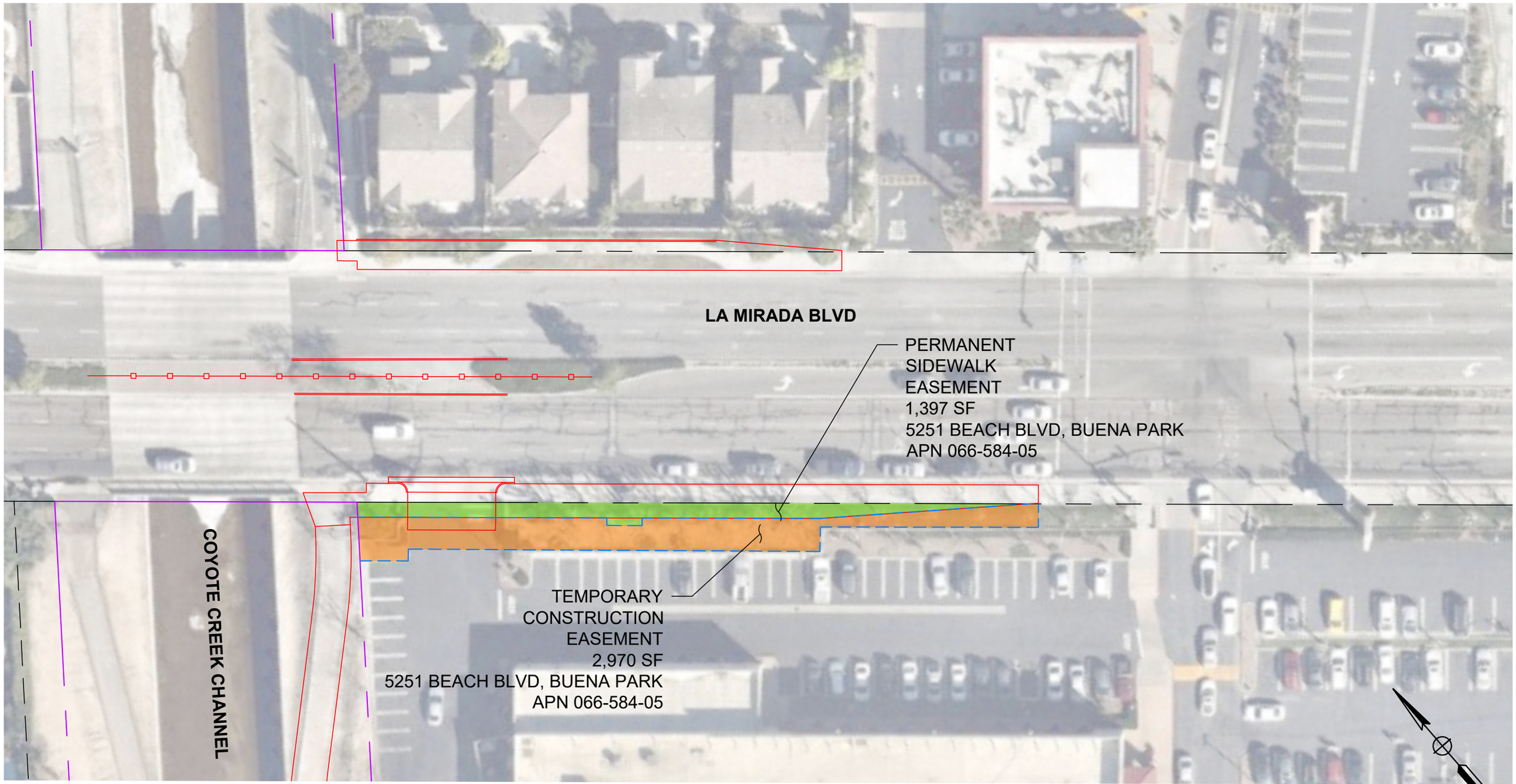
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - EAST/WEST OF STAGE RD
SHEET 8

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - LA MIRADA BLVD
SHEET 9

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023

Attachment 2

GEOTECHNICAL BORINGS AND ACCESS MAPS

Rose St
de Oro Pl
de Oro Cir
Ashworth St
Vierra Ave
Coyote Creek North Fork Flood Control Channel
Coyote Creek Flood Control Channel
City of Cerritos

Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_NorthFork_2023_02_01.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

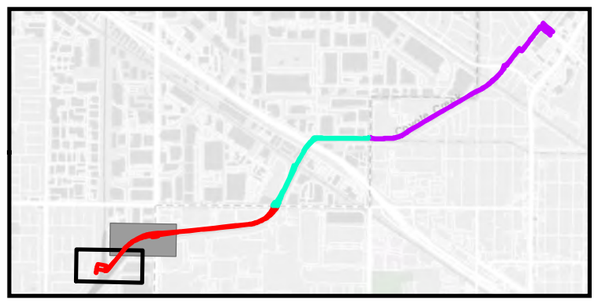


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

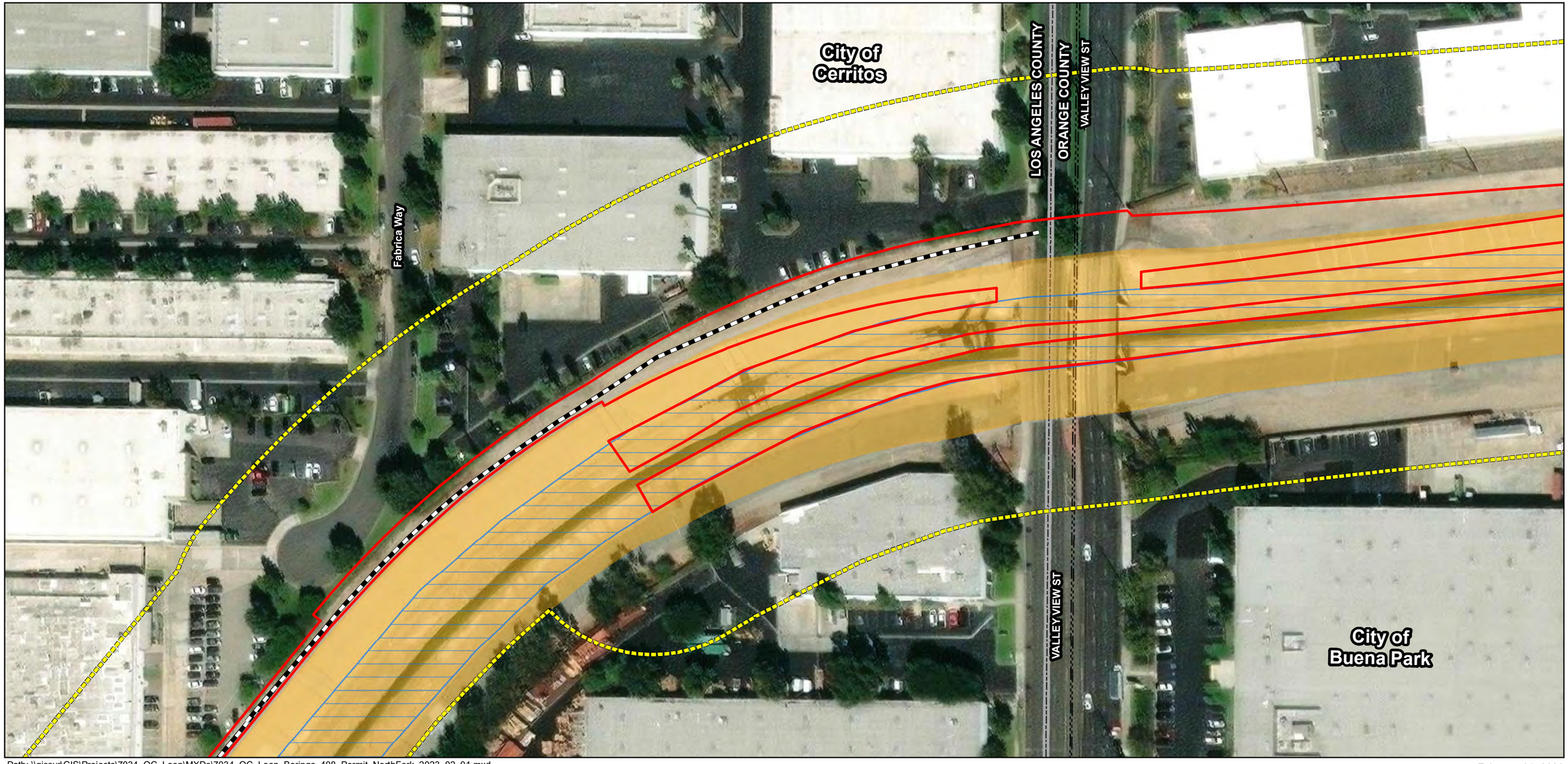
- 408 Permit, Coyote Creek North Fork
- Geotech Access Route
- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek North Fork

Map 1 of 2

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_NorthFork_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

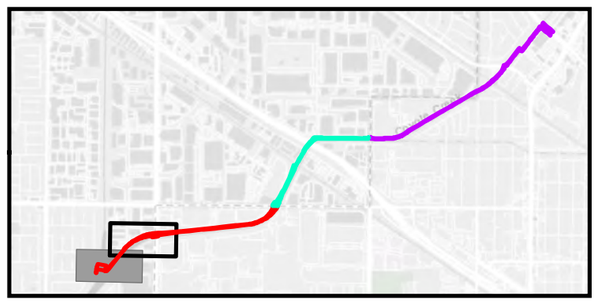


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Geotech Access Route
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek North Fork

Map 2 of 2

UltraSystems
environmental • management • planning

Rose St
de Oro Pl
de Oro Cir
Ashworth St
Vierra Ave
Coyote Creek North Fork Flood Control Channel
Coyote Creek Flood Control Channel
City of Cerritos

Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

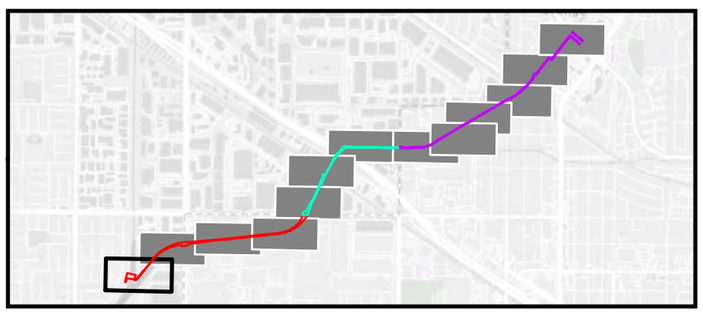


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

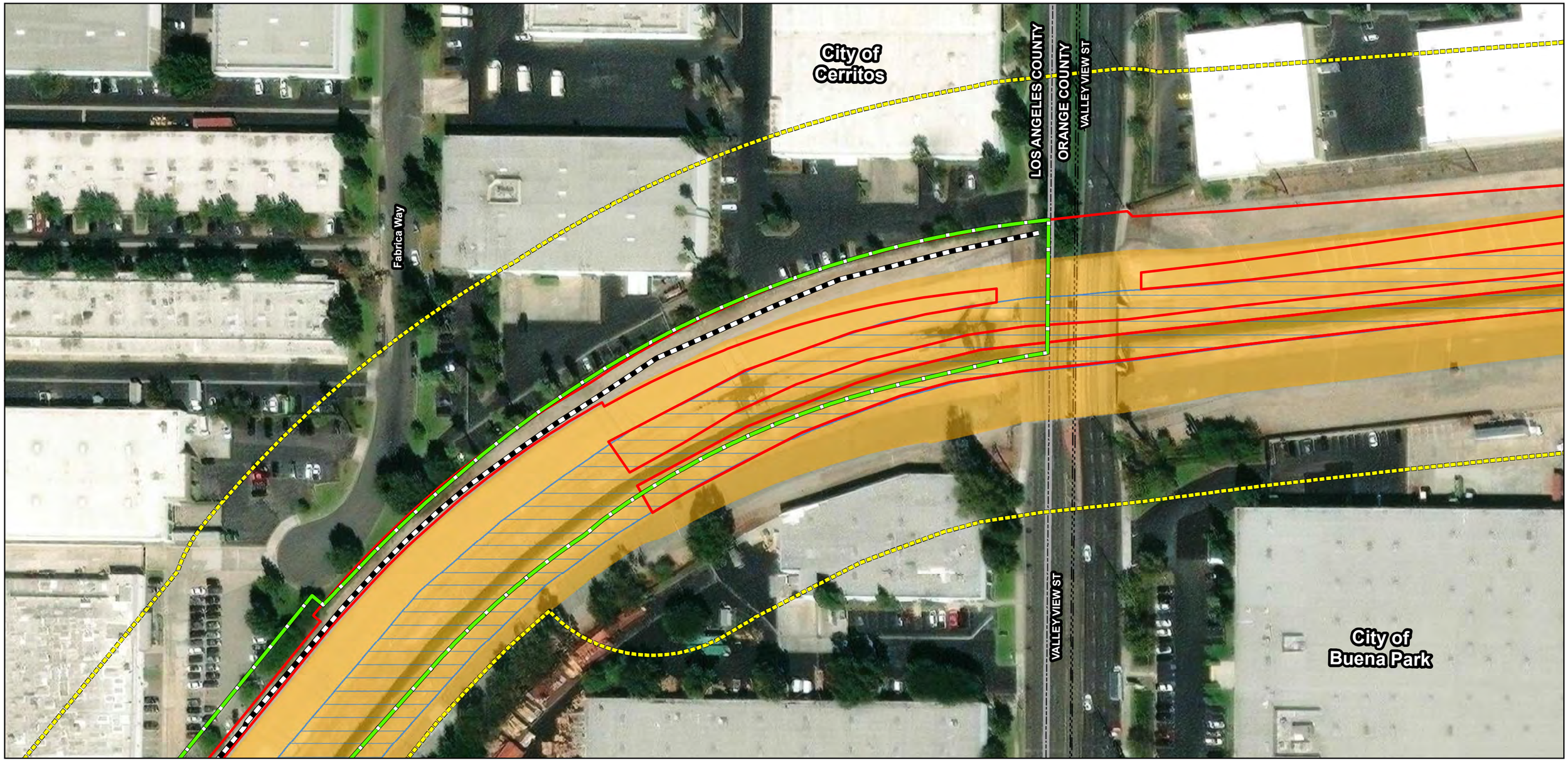
- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 1 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

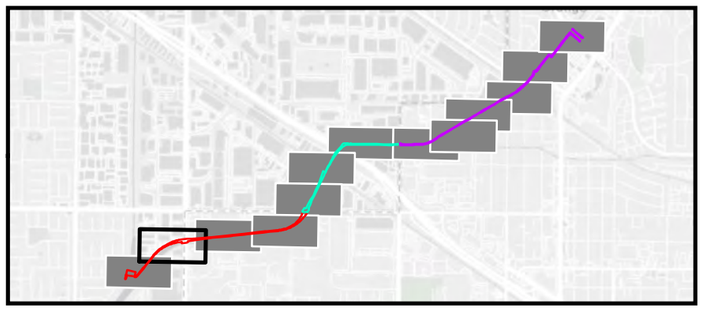


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

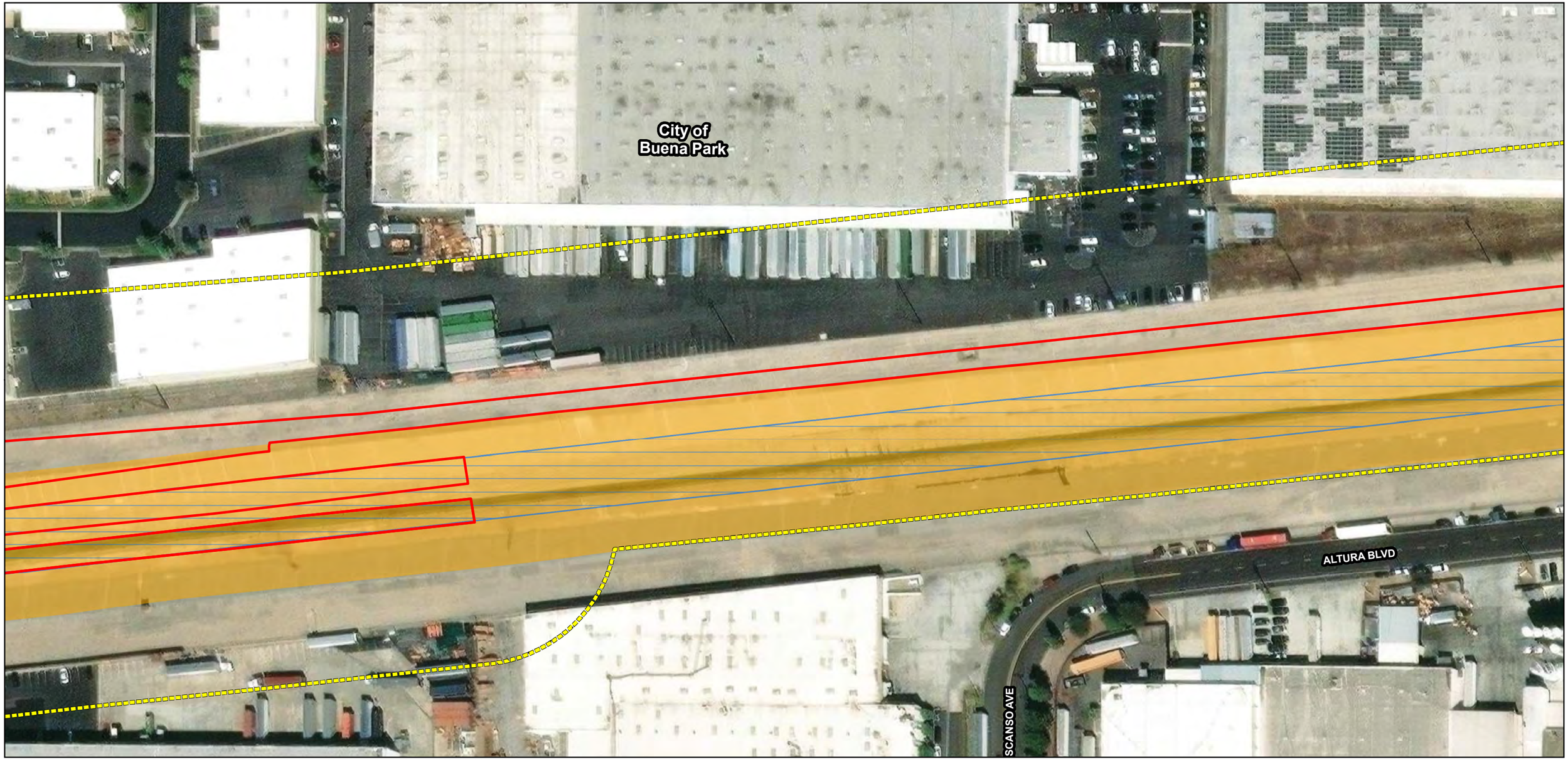
- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 2 of 13

UltraSystems
environmental • management • planning

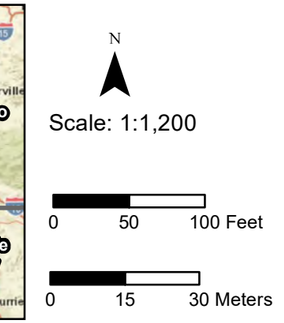


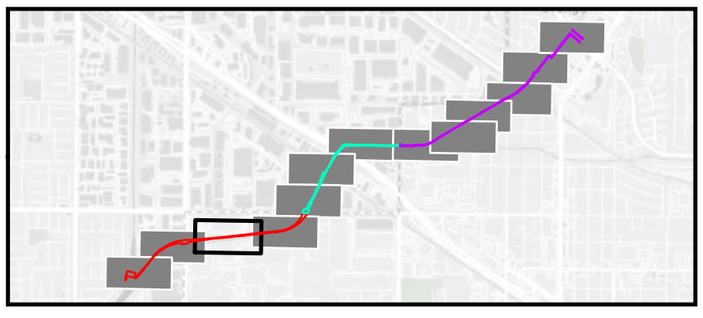
Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023







Legend

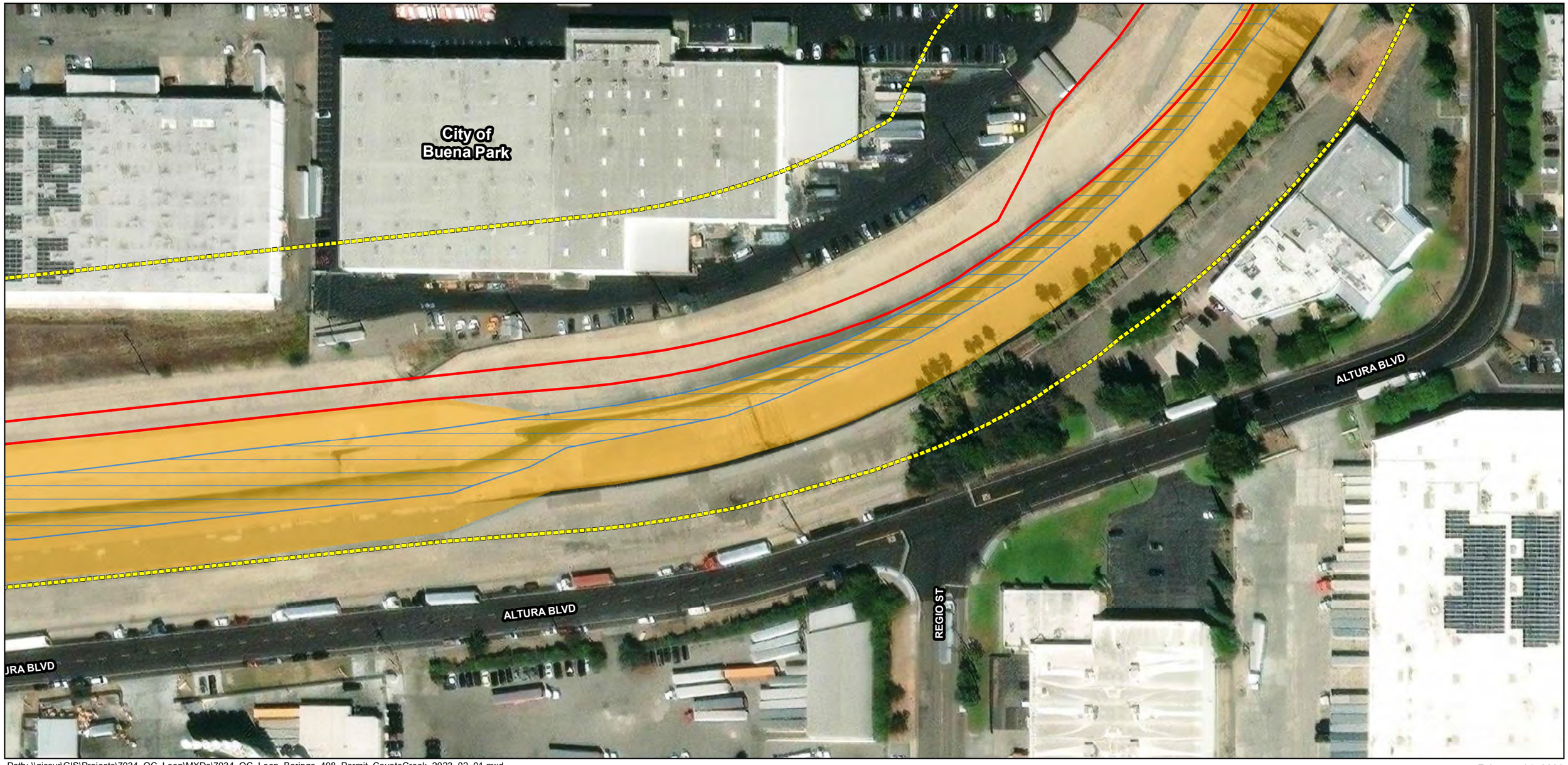
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 3 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

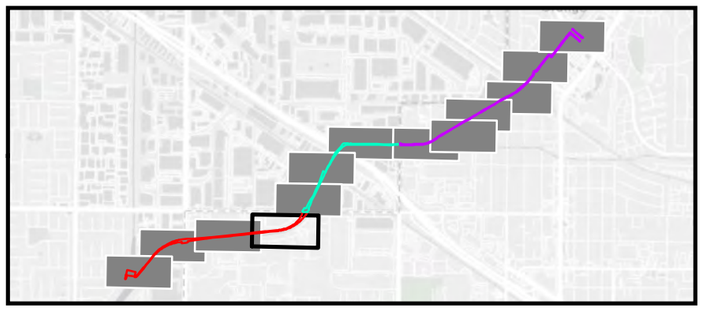


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

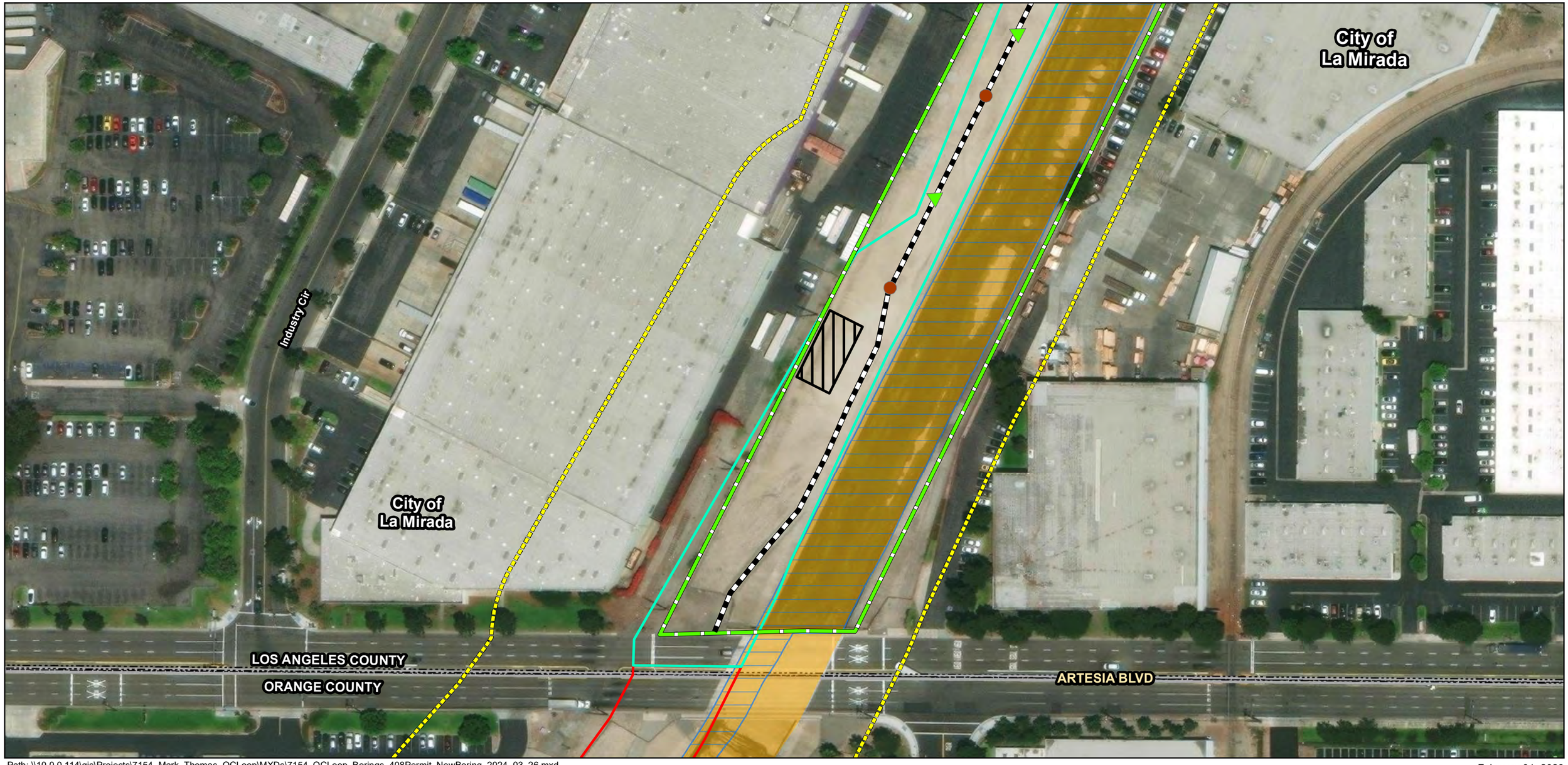
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 4 of 13

UltraSystems
environmental • management • planning



Path: \\10.0.0.114\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Borings_408Permit_NewBoring_2024_03_26.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

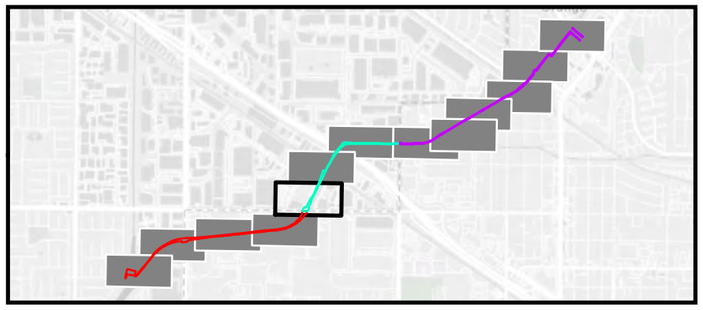


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Geotech Access Route
- 408 Permit, Coyote Creek
- Geotech Staging Area
- Segment O
- Segment P
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 5 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

February 01, 2023

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

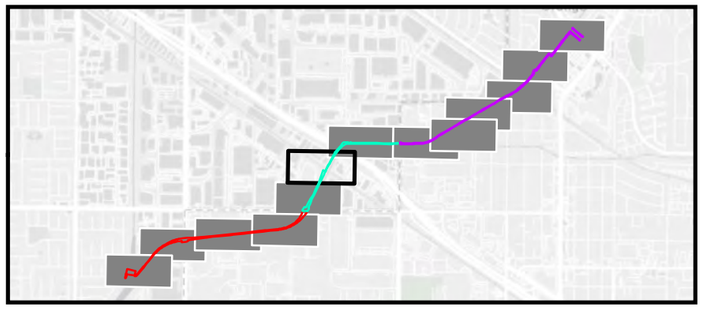


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment P
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 6 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

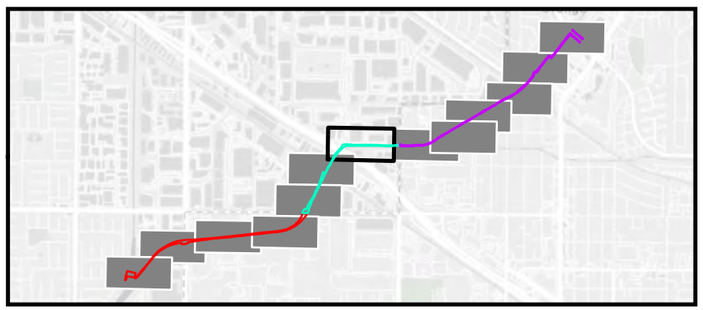


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

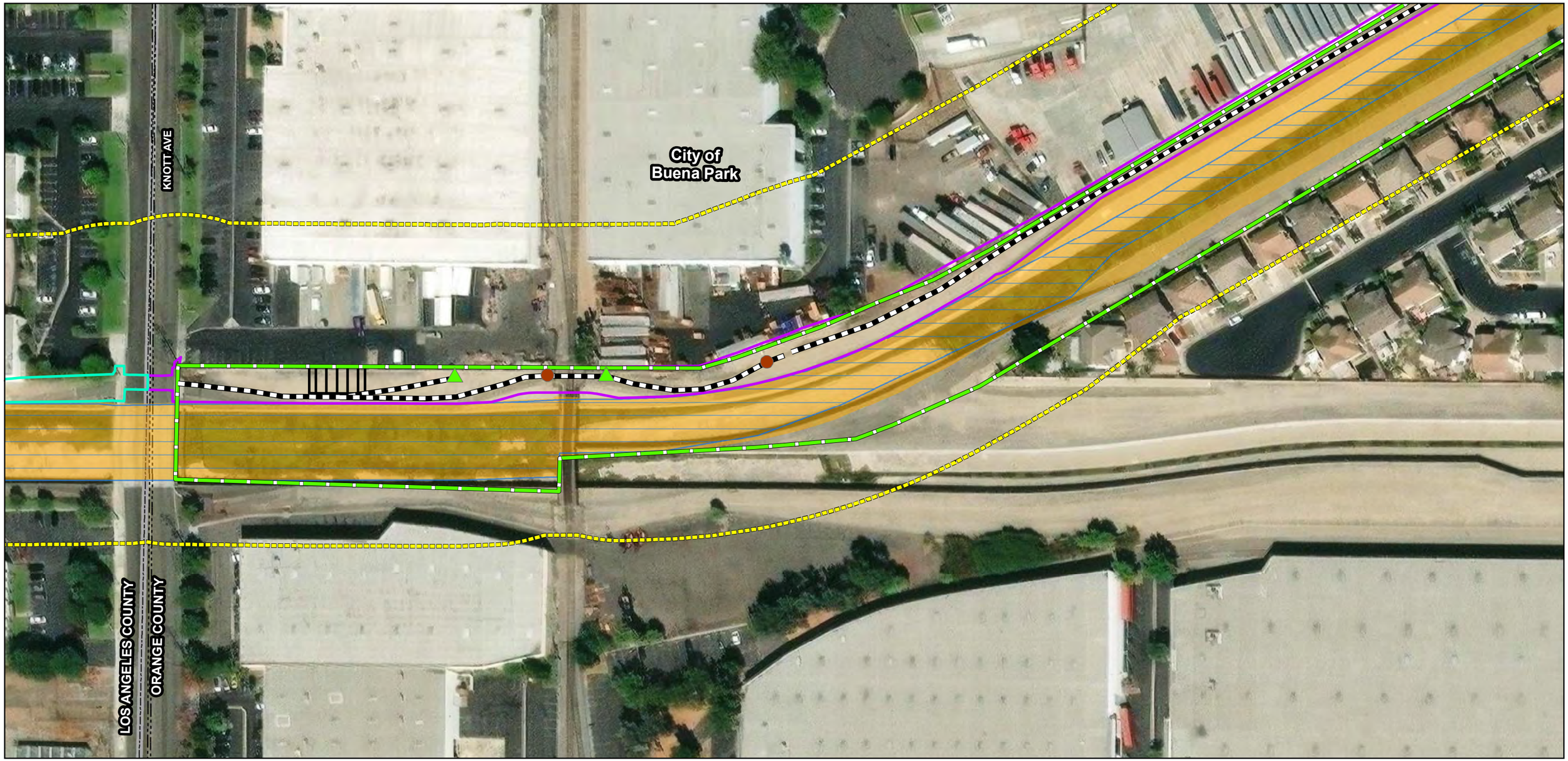
- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment P
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 7 of 13

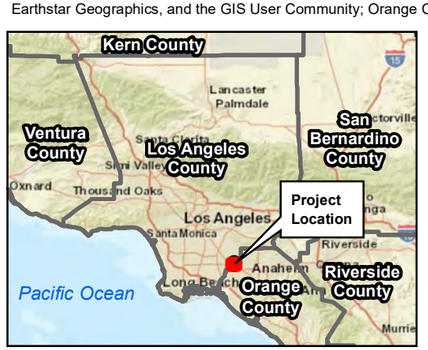
UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

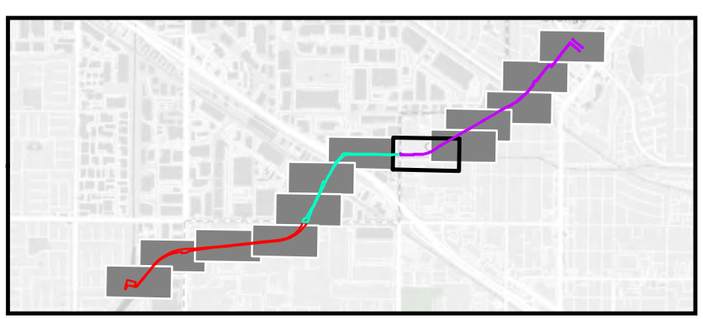


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

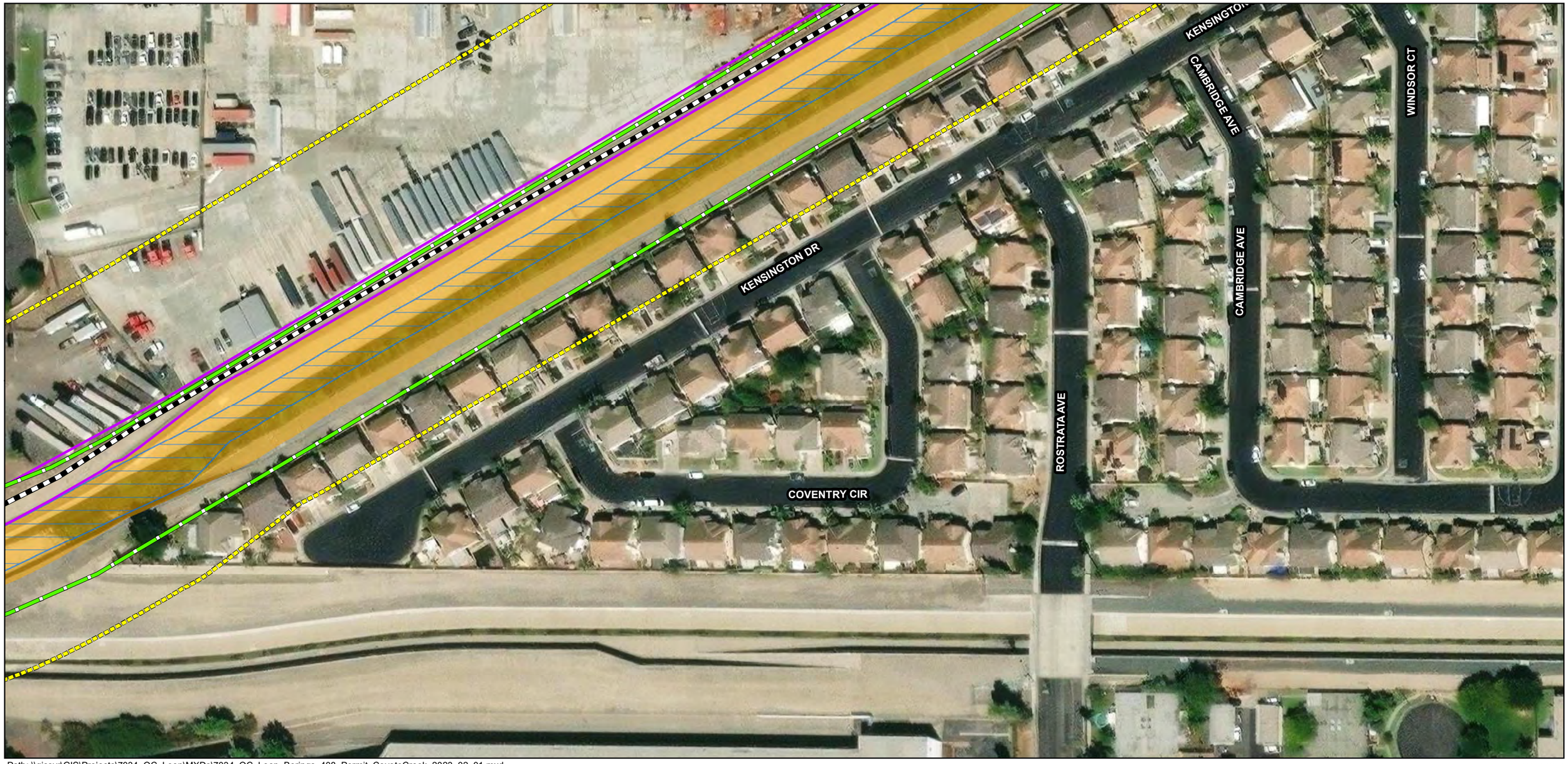
- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Geotech Access Route
- 408 Permit, Coyote Creek
- Geotech Staging Area
- Segment P
- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 8 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023



N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 9 of 13

UltraSystems
environmental • management • planning

City of La Mirada

LOS ANGELES COUNTY

ORANGE COUNTY

City of Buena Park

KENSINGTON DR

CAMBRIDGE AVE

WINDSOR CT

WESTERN AVE

Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

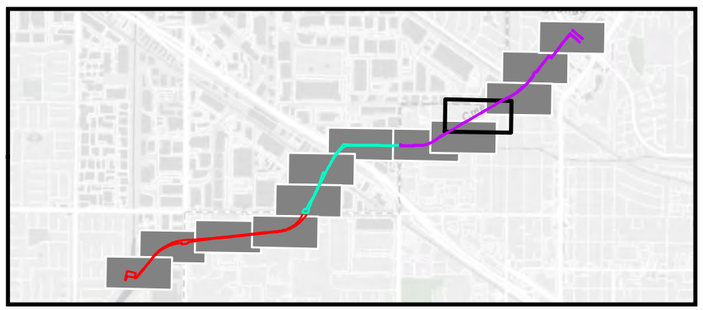


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 10 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

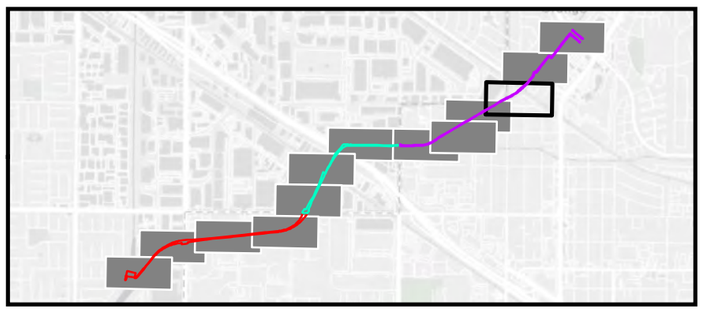


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 11 of 13

UltraSystems
environmental • management • planning

LOS ANGELES COUNTY
ORANGE COUNTY
MCCOMBER RD
GRANADA DR
SAN ARDO DR
MC COMBER RD
STAGE RD
City of Buena Park

Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

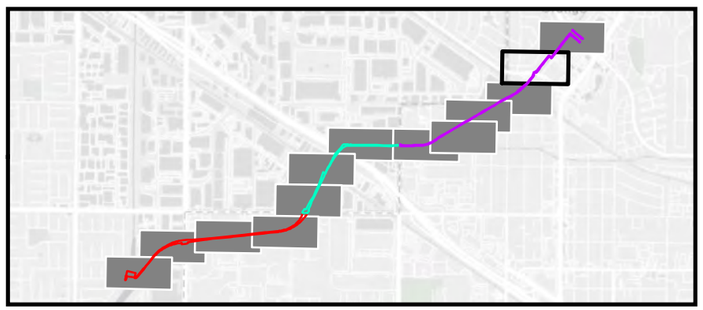


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

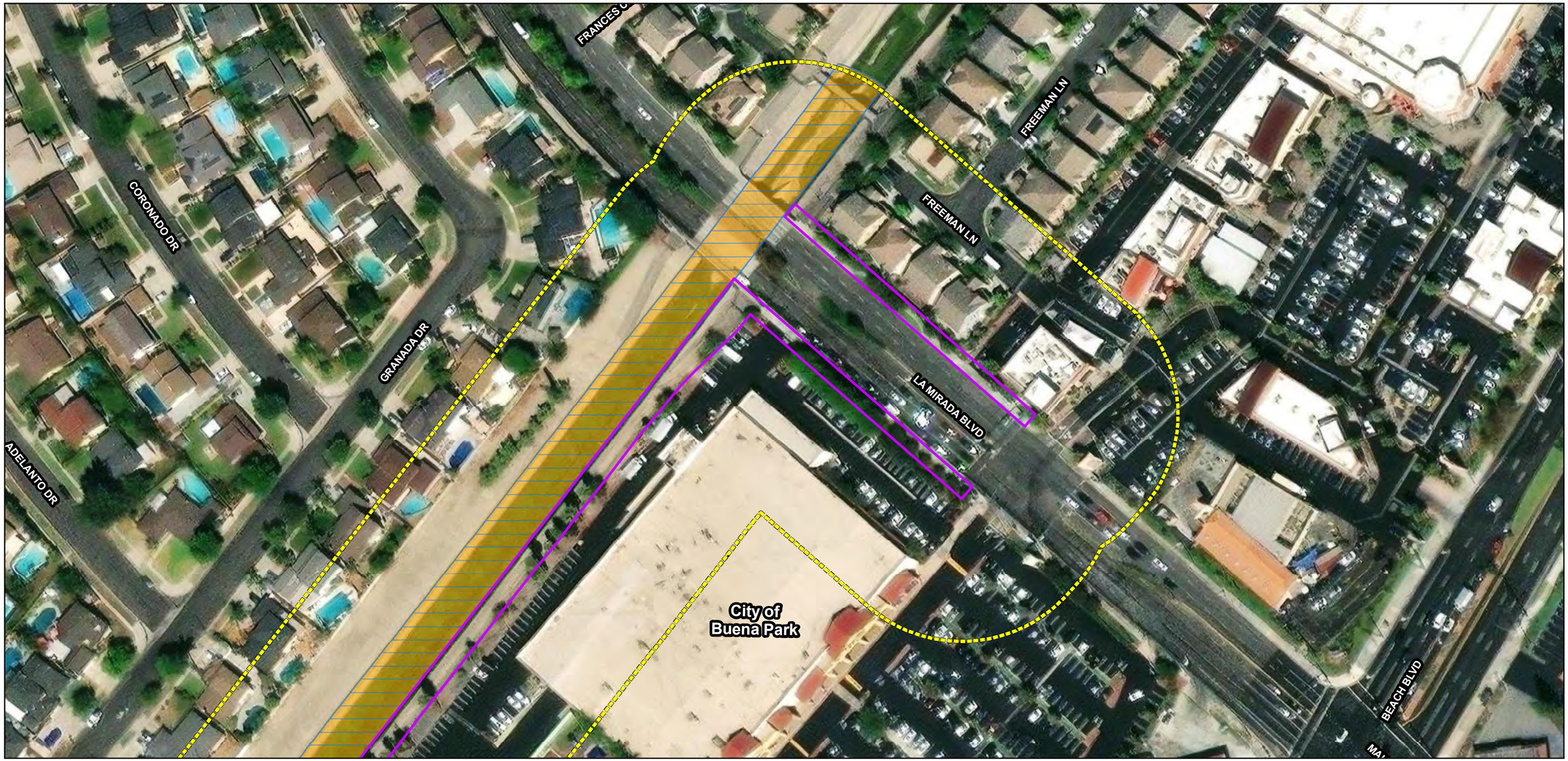
- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Geotech Access Route
- 408 Permit, Coyote Creek
- Geotech Staging Area
- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 12 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

February 01, 2023

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

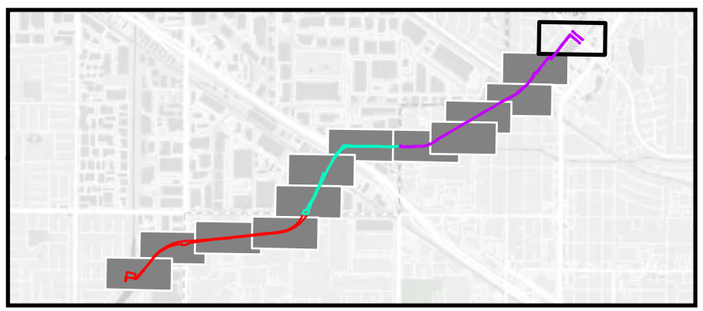


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 13 of 13

UltraSystems
environmental • management • planning

Attachment 3

NEPA DESIGN CHANGE ANALYSIS MATRIX

OC Loop – Segments O, P, Q Coyote Creek Bikeway Project - NEPA
Comparison of Project Refinements to Final Recirculated MND approved by the Board of Supervisors on October 19, 2021

OC Development Services/Planning **April 1, 2024**

COMPONENT	ANALYSIS	HPSR	HRER	ASR	APPENDIX NO.
Purpose. The purpose of this matrix to determine one of the following: 1) the changes were adequately discussed in the NEPA Documents required for Caltrans and only requires an Amendment to the prior documents stating this, 2) changes were not adequately discussed but are minor and an Amendment needs to be prepared, 3) changes are potentially significant and a Supplemental document(s) need to be prepared.					
Easements					
Temporary Construction Easements (TCEs) (APE Revalidation Map Sheet # for visual reference from APE map dated 06.26.23) • Cerritos Bridge TCE (Sheet # 1) • Artesia Blvd TCE's (Sheet # 5) • Caltrans Property TCE's (Sheets # 6,7) • Chevron Property TCE (Sheet 7) • BNSF Undercrossing TCEs (Sheet # 9) • TCE (near Dolly Rd) (Sheet # 9) • APN 7001-020-039 (Sheet # 11) • 7650 Stage Rd (Sheet # 12) • Amberwood Apartments TCE expansion (Sheet # 13) • La Mirada Blvd. Sidewalk TCE (Sheet # 14) Revised list of easements based on Mark Thomas drawings submitted on 01.26.23 and email memo sent on 01.11.23. Brad email map 01-16-23, Updated 03.23.23 (map date 06.26.23).	The TCEs overlie or support proposed activities that were described and evaluated in the Final Recirculated MND and therefore would not result in physical impacts beyond the impacts originally analyzed.	See ASR/HRER	Temporary easement around a commercial building at 17641 Fabrica Way in Cerritos (AIN 7022-023-022, built in 1972) will necessitate recordation, research, and evaluation of the building.	Minor additions to the Area of Potential Effects (APE) as well as the Area of Direct Impacts (ADI) will need to be added to the archaeological survey coverage.	A/B
La Mirada Blvd. Permanent Sidewalk Easement (PSE) (Sheet # 14) Revised Mark Thomas 11.08.22 drawings submitted by Brad on 12.13.22.	The PSE was evaluated in Section 3.0 – Project Description (p. 3-16), in No. 5 of the Executive Summary Section (p. xxi) and in 4.17 - Transportation (p. 4.17-4).	See ASR/HRER	No additional work required.	Minor addition to the APE and the ADI will need to be added to the archaeological survey coverage.	A/B/C
Permanent Aerial Easement (PAE) • UPRR Industry Track (Sheet # 6) • Chevron Property (Sheet 7) • BNSF Corridor (Sheet # 11) Revised list of easements based on Mark Thomas drawings submitted on 01.26.23 and email memo sent on 01.11.23.	The Final Recirculated MND did not describe a permanent aerial easement for the proposed project. Although an aerial easement was not specifically identified in the Final Recirculated MND, other permanent easements were identified and evaluated. The Final Recirculated MND contemplated the need for permanent easements in Section 3.6. These easements are related to two bridge crossings described and evaluated in the Final Recirculated MND. The PAEs overlie proposed activities that were evaluated in the Final Recirculated MND and would not cause physical impacts.	See ASR/HRER	No additional work required.	No additional work required.	A/B/D
Permanent Subsurface Easement (PSUBE) • Bikeway Under I-5 Frwy (Sheet # 7) • BNSF Industry Track (Sheet # 9) Revised list of easements based on Mark Thomas drawings submitted on 01.26.23 and email memo sent on 01.11.23.	The Final Recirculated MND did not describe a permanent subsurface easement. Although this type of easement was not specifically identified in the Final Recirculated MND, other permanent easements were identified and evaluated. The Final Recirculated MND contemplated the need for permanent easements in Section 3.6. This easement to an undercrossing described and evaluated in the Final Recirculated Final Recirculated MND. This PSUBE overlie	See ASR/HRER	No additional work required.	No additional work required.	A/B/D

COMPONENT	ANALYSIS	HPSR	HRER	ASR	APPENDIX NO.
	proposed activities that were evaluated in the Final Recirculated MND and would not cause physical impacts.				
Permanent Maintenance Easements (PME) • Caltrans Property (Sheets # 6, 7) • BNSF Undercrossing (Sheet # 9) • Maintenance Access (two Dolly Road Options) (Sheet # 9) • APN 7001-020-039 (Sheet # 11) Revised list of easements based on Mark Thomas drawings submitted on 02.23.23 and Brad Fowler email memo sent on 04.06.23.	The Final Recirculated MND did not describe permanent maintenance easements. Although this type of easement was not specifically identified in the Final Recirculated MND, other permanent easements were identified and evaluated. The Final Recirculated MND contemplated the need for permanent easements in Section 3.6. The Caltrans Property PME in the southwest corner of APN 7003-009-909 contains the revised placement of the bicycle bridge. The BNSF Undercrossing PME on the north side of the channel reflects the change from the prior at-grade crossing to underground. The Dolly Road Maintenance Access to the channel PME provides access from the end of Dolly Road to the channel between APN 066-010-48 and 066-010-53. The PME within the parking of the warehouse through APN 7001-020-039 provides access from Desman Road to the channel. These PMEs overlie proposed activities that were evaluated in the Final Recirculated MND and would not cause physical impacts.	See ASR/HRER	Permanent Easement around a commercial building at 15250 Desman Road in La Mirada (AIN 7001-020-039, built in 1999) requires the building to be included in the APE, but it is exempt from further study due to its modern age.	Minor additions to the Area of Potential Effects (APE) as well as the Area of Direct Impacts (ADI) will need to be added to the archaeological survey coverage.	A/B
Physical Improvements					
Earthwork and borings at LACFCD Parcel and four additional bridge/tunnel locations - Net reduction of cut of 600 CY and fill of 4,100 CY provided by Brad email of 11.13.22. Boring and coring information provided by Brad Fowler emails of 01.05.23 and 01.07.23 and call on 02.07.23. (Sheets # 5,6,7,9,11,12,13) Excavations up to 18.5’ in depth were evaluated for the Paleo and archeological reports in the original documents. But design soils sample Borings and Construction Column Corings are now necessary for the bridge column locations to deeper depths. Excavation for small diameter (8”) soils borings are expected to reach as much as 120’ in depth and actual bridge column Corings may reach 100’ in depth with diameters ranging from 24” to 84” which exceeds excavation depths noted in the original environmental documents.	The Final Recirculated MND does not provide cut and fill numbers. Appendix B2-1 provides earthwork amounts but does clarify a net difference between cut and fill. The appendix identifies a total of 5,473 cubic yards of earthwork for Segments P and Q, and none for Segment O. Because a net reduction in earthwork has been presented it would be less than the original amount calculated. The MND does not expressly describe soils boring, but covers equipment for contrition coring (both drilling operations) which is much more invasive. This is not new information of substantial importance and is consistent with this type of construction. The short-term construction noise generated from a drilling rig was described and evaluated in Final Recirculated MND Section 4.13 -Noise and included in Table 4.13-6. In addition, four USACE Section 408 permits will be obtained as described in Final Recirculated MND Table 3.7-1.	See ASR/HRER	No additional work required.	Further geoarchaeological analysis will be needed to assess sensitivity of subsurface soils for prehistoric cultural remains due to substantial increases to the depth of the vertical APE from what was covered in the existing reports.	A/E
Cerritos Bridge Height - 6 feet to 12 feet and deck height increased 18 inches provided by Brad email of 11.13.22 (Sheet # 1).	Mitigation Measure AES-1 was added to the Final Recirculated MND (p. 4.1-10). Implementation of proposed MM AES-1 is adequately analyzed the proposed change and no additional mitigation measures are required.	See ASR/HRER	The increased profile of the bridge will necessitate the incorporation of five adjacent residential properties into the APE for indirect effects. Four of these, located at 17814-17830 Vierra Avenue in Cerritos (AINs 7022-022-003 to -006), were constructed in	No additional work required.	A/F

COMPONENT	ANALYSIS	HPSR	HRER	ASR	APPENDIX NO.
			1970-1972 and will need to be recorded and evaluated. The other one, located at 17834 Vierra Avenue in Cerritos (AINs 7022-022-007), was built in 2006 and is exempt from further study.		
Cerritos Bridge Lateral Relocation 25 feet south provided by Brad email of 02.09.23 (Sheet # 1).	Final Recirculated MND Section 4.1 considered the potential impacts of the bridges and, in particular, Segment O (p. 4.1-2). Figure 4.4-8a (p. 4.4-44) depicts the project envelope along the west side of the channel. The lateral relocation is within the identified project footprint. The refinement is consistent with the project's overall goal and would not result in new impacts.	See ASR/HRER	No additional work required.	Minor addition to the APE and the ADI will need to be added to the archaeological survey coverage.	A/F
Block wall(s) nine (9) feet in height on LACFCD property installed adjacent to existing back wall(s) (Sheet #1).	**MM AES-1** Within six months after construction completion of the proposed project, opening the bikeway for public use, if any homeowner at 17834, 17830, 17824, 17818 or 17814 Vierra Avenue, Cerritos, CA can demonstrate they can physically see individuals traversing the bridge, while standing at grade in their back yard, OC Public Works will offer reimbursement to homeowners of up to $2,500 per household for verifiable contract bills paid to grow a hedge, similar to the hedge height extensions at 17814 & 17808 Vierra Avenue for privacy in accordance with Cerritos City Code. Subsequent to the public review process and project approval, the City of Cerritos received requests from residents to provide additional screening beyond that provided in MM AES-1 related to slightly raising the bridge. In coordination with the City of Cerritos, block wall(s) will be provided. The addition of the block wall is fundamentally equivalent to MM AES-1 that describes the addition of hedges. Because the addition of block walls does not revise MM AES-1 or substantially revise the IS/MND, Guidelines Section 15073.5 is not triggered. Similarly, Guidelines Section 15074.1(a) is not triggered.	See ASR/HRER	The potential indirect effect of the wall on adjacent properties is addressed through the incorporation of the five residential lots in the APE (see above)	No additional work required.	A/F
La Mirada Blvd. Crossing Median Improvements - New Fence and fill-in the median gap (Sheet # 14).	The MND did not expressly describe these features but did describe the proposed bikeway route along La Mirada Boulevard in Project Description Section 3.3.3 (pgs. 3-15 - 3.16). The proposed changes are designed to prevent bicyclists from crossing La Mirada Boulevard apart from the designated path. This is not new information of substantial importance and the refinement is consistent with the project's overall goal. The City of Buena Park's General Plan Mobility Element contains Policy M-1.6, which states: "Encourage the reduction of side entry conflicts along major and primary	See ASR/HRER	No additional work required.	Minor addition to the APE and the ADI will need to be added to the archaeological survey coverage.	A/G

COMPONENT	ANALYSIS	HPSR	HRER	ASR	APPENDIX NO.
	arterials through the use of access control, consolidation of access points, turn restrictions, and raised medians."				
La Mirada Blvd. Monument 2' wide x 4' tall (south side) – relocate (Sheet # 14).	The relocation of the monument was not expressly described in the Project Description section; however, these types of minor improvements are generally not included. In addition, if the relocation of the monument (est. 2 ft.) were considered a separate activity it would likely quality for a Class 1 CEQA exemption (Sec. 15301(b)).	See ASR/HRER	No additional work required.	No additional work required.	A
La Mirada Blvd. trees (south side) - Remove and replace trees (Sheet # 14).	The removal and replacement of trees was discussed in Final Recirculated MND Section 3.3 (pgs. 3-15 & 3-16), Section 4.1(a) and (c) on pages 4.15 and 4.19, respectively.	See ASR/HRER	No additional work required.	No additional work required.	A/H/I
La Mirada Blvd. SCE sidewalk Cabinet (north and south side) – Relocate (Sheet # 14).	The relocation of the cabinet was not expressly described in the Project Description section; however, these types of minor utility relocations and adjustments are generally minor, typical and part of project construction . Final Recirculated MND Section 4.19(a) – Utilities contemplated impacts related to electric power would result in less than significant impacts. By logical extension, this would reasonably include all types of related changes associated with providing power.	See ASR/HRER	No additional work required.	No additional work required.	A/I
Erect Bridge Structures - In-Channel Work at BNSF Metrolink Corridor provided by Brad email of 01.14.23 (Sheet # 11).	Because the bridge erection activity is no longer confined to the channel maintenance road but will include activity within the channel. Duration of time in the channel will be approximately a month. Final Recirculated MND Table 3.7-1 (p. 3-25) includes a Section 404 and 408 permits for construction activity to occur within the channel.	See ASR/HRER	USACE will require explicit language in the HRER and the HPSR to address an oil pipeline across the channel.	Further geoarchaeological analysis will be needed to assess sensitivity of subsurface soils for prehistoric cultural remains per USACE request.	A/EI
Identification of logistic access points to LACFCD flood channel for materials and equipment for USACE (separate location map provided 03.24-23. UltraSystems).	Part of the scope of construction activities already evaluated for the project includes construction methodology to erect bridges and build the bikeway underpass at Valley View within the flood control channel. The USACE generally restricts equipment axle weights to H-10 limitations (10,000 lb/axle) adjacent to channel walls, i.e., lighter equipment so as not to damage channel walls. However, USACE equipment axle weight limitations on the channel bottom are less stringent and allow larger H-20 (20,000 lb/axle) equipment. This is a concrete bottomed channel currently allowing vehicular and equipment maintenance access for work on the channel. In order to comply with USACE equipment axle weight limitations for vehicles adjacent to the channel walls running along existing maintenance roads at the channel top, it is expected that some cargo trucks loaded with materials or equipment or truss sections would exceed the axle weight limitations to ferry these materials along the channel top maintenance roads from public roads to get to the bridge or underpass location for staging and	No additional work required. The temporary use of the access routes and the crane location has no potential to affect any "historic properties," and these locations do not need to be added to the APE.	No additional work required.	No additional work required.	J

COMPONENT	ANALYSIS	HPSR	HRER	ASR	APPENDIX NO.
	construction. However, unloaded cargo trucks, meeting H10 requirements, could run along the channel top maintenance roads from public roadway access points to existing channel bottom access ramps that allow them to reach the channel bottom. Cargo trucks could then travel within the channel along the bottom to nearby public roadway bridges to be loaded by crane with materials and driven back to the work location along the channel bottom. Three channel bottom access points near the work for trucks includes the junction of Coyote Creek North Fork with the Coyote Creek Main Channel in Cerritos, accessed from Valley View Boulevard or Artesia Boulevard, Marquart Avenue and the North Fork of Coyote Creek, and the junction of Tulare Road with the main Coyote Creek Channel in Buena Park. Roadway crane operations to briefly load these trucks, depending upon City required truck routes or roadway weight restrictions or USACE 408/401 permit requirements, may occur at the following channel junctions: Artesia Boulevard and the North Fork of Coyote Creek, Walker Street and Coyote Creek, Artesia Boulevard and Coyote Creek, Valley View Boulevard and Coyote Creek, Knott Avenue and Coyote Creek, Stage Road and Coyote Creek, La Mirada Boulevard and Coyote Creek. These locations will be included in the USACE 401/404/408 Permits for approval. No additional environmental impacts are identified with this. No physical changes are needed/anticipated at the crane locations. It is included to show that access to the jobsites for in-channel work have been evaluated and may use existing OCFCD public channel maintenance roadways or the channel bottom from outside the APE similar to public roadways.				
Likely Billboard Relocation at S. Firestone Blvd and consequent permanent license or permanent easement relocation (Sheet # 7).	The new bikeway approach to S. Firestone Boulevard on the Caltrans property has an existing lighted freeway billboard sign on the property. The proximity of the sign to the bikeway retaining wall may conflict with the proposed bikeway alignment. Therefore, it is proposed to relocate/replace the sign on Caltrans property further to the north. This may require a license or new/revised easement to encompass the new location. The City of La Mirada continues to allow new freeway billboard signs within the jurisdiction provided they comply with the City of La Mirada Municipal Code. While the activity is not expressly described in the MND, the fact that this sign is simply being moved a short distance within an industrial area and replaced in kind, this minor action within the scope of the project is considered de minimis.	The existing billboard, reportedly installed in the 1950s, will be noted in the HPSR as being exempt from further study and evaluation as a minor infrastructure feature. The new location for the billboard will be covered by the supplemental archaeological survey. The relocation of the billboard does not alter the overall setting and feeling of the surrounding area and will not cause any visual, atmospheric, or other indirect	No additional work required.	The new location for the billboard will be covered by the supplemental archaeological survey.	A

COMPONENT	ANALYSIS	HPSR	HRER	ASR	APPENDIX NO.
	Appropriate engineering efforts, including foundation boring to develop sufficient structural foundation design, and sign post construction is similar to all the project's numerous tunnel and bridge columns foundation/construction work already described elsewhere.	effect on buildings on nearby properties.			
Minor public right of way APE expansions for associated work areas, shallow bioswales, traffic control and striping • Channel junction corner work area (Sheet # 1) • Valley View Blvd. xing north side (Sheet # 2) • LACFCD r/w north side bioswale (Sheets # 2,3,4) • Artesia Blvd xing (Sheet # 4) • LACFCD r/w south side work area (Sheets # 5,6) • Firestone Blvd xing. (Sheet # 7) • Knott Ave. xing (Sheet # 8) • LACFCD r/w triangular segment (Sheet # 11) • LACFCD channel bottom cross channel bridge erection (Sheet # 11) • La Mirada Blvd xing (Sheet # 14) • 03.24.23 Xavier Espinosa email	The proposed activities within these minor additional public right of way work area expansions were described and evaluated in the Final Recirculated MND and therefore would not result in physical impacts beyond the impacts originally analyzed.	See ASR/HRER	No additional work required.	No additional work required.	A
Tribal Consultation Recommendation. It is our considered opinion that tribal consultation is not needed for the Supplemental HPSR. The reason for this is that all of the added project scope items will not extend the APE out farther than it had been originally by more than a few hundred feet. The original map of the project APE sent to the NAHC already had a half-mile buffer built in and so that was the area for their Sacred Lands File search (to which they then add an undefined larger search area). The same APE plus buffer map is then sent to the individual tribal groups Caltrans consulted with for the original HPSR. Also, that there were no prehistoric sites found within the APE and buffer in the original CHRIS records search, which we believe will be essentially the same APE, also suggests there would be no further cultural resources of interest to warrant a new round of tribal consultation.					

See further notes at the end regarding the reorientation of the UPRR and BNSF overcrossings.

Revision Sources:

- Mark Thomas email 11.10.22 and Brad Fowler email 11.14.22
- Brad Fowler email 11.14.22
- Brad Fowler email 11.14.22
- Brad Fowler email 11.14.22
- Brad Fowler email 11.14.22
- Mark Thomas dwg. Option 1 11.08.22 sent 12-13.22 and 01.11.23 version
- Mark Thomas dwg. Option 1 11.08.22 sent 12-13.22
- Mark Thomas dwg. Option 1 11.08.22 sent 12-13.22
- Mark Thomas dwg. Option 1 11.08.22 sent 12-13.22
- Mark Thomas dwg. Option 1 11.08.22 sent 12-13.22
- Mark Thomas Proposed ROW and Easements dwg. 01.26.23
- Brad Fowler email 12.23.22 (8:58 a.m.)
- Brad Fowler email 12.23.22 (8:58 a.m.)
- Brad Fowler email 01.05.23 (11:53.a.m.)
- Brad Fowler email 01.07.23 (9:22.a.m.)

- Brad Fowler email 01.26.23 (9:26.a.m.)
- Brad Fowler emails and call on 02.07.23
- Brad Fowler email of 02.09.23
- Mark Thomas dwg. Sent 02.23.23Brad Fowler Email of 03-06-23
- Brad Fowler Email of 03-09-23
- Brad Fowler email of 03.16.2023
- Brad Fowler Email of 03-23-23
- Billye Breckenridge (Ultra) email 03-24-23
- Xavier Espinosa email APE 03-24-23
- Billye Breckenridge (Ultra) email APE 03-29-23
- Billye Breckenridge (Ultra) email APE 03-30-23
- Brad Fowler email of 03-30-23
- Brad Fowler email of 04-03-23
- Brad Fowler email of 04-06-23
- Brad Fowler email of 06-01-23
- Brad Fowler email 06-06-23
- Brad Fowler email 06-13-23
- Brad Fowler email 06-14-23
- CRM Tech email 06-01-23
- CRM Tech email 06-03-23
- Billye Breckenridge (Ultra) email 06-01-23
- Billye Breckenridge (Ultra) email 06-02-23
- Steve Oneil (Ultra) email 06-01-23
- Steve Oneil (Ultra) email 06-02-23
- Steve Oneil (Ultra) email 06-13-23
- Xavier Espinosa email APE 06.02.23
- Xavier Espinosa email APE 06.05.23
- Ravi Shah email 06-13-23
- Betsy Lindsay email 06-13-23
- Betsy Lindsay email 06-14-23
- Billye Breckenridge (Ultra) email APE 06-26-23
- Brad Email 7-6-23

Missing from this list: The reorientation of the UPRR and BNSF (mainline) overcrossings will require the incorporation of two vacant parcels, AIN 7003-009-909 (L.A. County) and APN 066-581-05 (Orange County), into the APE/ADI and into the archaeological survey coverage. No further work will be needed in the HRER unless any historic-period archaeological sites are found on these parcels.

Attachment 4

CEQA DESIGN CHANGE ANALYSIS MATRIX

OC Loop – Segments O, P, Q Coyote Creek Bikeway Project - CEQA

Comparison of 35% Design Project Refinements to Final Recirculated MND approved by the Board of Supervisors on October 19, 2021

OC Development Services/Planning **April 1, 2024**

COMPONENT	ANALYSIS	APPENDIX NO.
Purpose. The purpose of this matrix to determine one of the following options: 1) the changes were adequately discussed in the Final Recirculated MND and only requires a memo to file stating this, 2) changes were not adequately discussed but are minor and an Addendum needs to be prepared, 3) changes are potentially significant and a Supplemental MND needs to be prepared, or 4) changes are significant and an EIR needs to be prepared. (Below analysis indicates option 1 is appropriate.)		
Easements		
Temporary Construction Easements (TCEs) (APE Revalidation Map Sheet # for visual reference from Billye Breckenridge map 6-26-23) • Cerritos Bridge TCE (Sheet # 1) • Artesia Blvd TCE's (Sheet # 5) • Caltrans Property TCE's (Sheets # 6,7) • Chevron Property TCE (Sheet 7, 8) • BNSF Undercrossing TCEs (Sheet # 9) • TCE (Dolly Rd) (Sheet # 9) • APN 7001-1020039 (Sheet # 11) • 7650 Stage Rd TCE (Sheet # 12) • Amberwood Apartments TCE expansion (Sheet # 13) • La Mirada Blvd. Sidewalk TCE (Sheet # 14) Revised list of easements based on Mark Thomas drawings submitted on 01.26.23 and email memo sent on 01.11.23. Brad email map 1-16-23, Updated 03.23.23.	The TCEs overlie or support proposed activities that were described and evaluated in the Final Recirculated MND and therefore would not result in physical impacts beyond the impacts originally analyzed.	A/B
La Mirada Blvd. Permanent Sidewalk Easement (PSE) (Sheet # 14) Revised Mark Thomas 11.08.22 drawings submitted by Brad on 12.13.22.	The PSE was evaluated in Section 3.0 – Project Description (p. 3-16), in No. 5 of the Executive Summary Section (p. xxi) and in 4.17 - Transportation (p. 4.17-4).	A/B/C
Permanent Aerial Easement (PAE) • UPRR Industry Track (Sheet # 6) • Chevron Property (Sheet 7) • BNSF Corridor (Sheet # 11)	The Final Recirculated MND did not describe a permanent aerial easement for the proposed project. Although an aerial easement was not specifically identified in the Final Recirculated MND, other permanent easements were identified and evaluated. The Final Recirculated MND contemplated the need for permanent easements in Section 3.6. These easements are related to two bridge crossings described and evaluated in the	A/B/D

COMPONENT	ANALYSIS	APPENDIX NO.
Revised list of easements based on Mark Thomas drawings submitted on 01.26.23 and email memo sent on 01.11.23.	Final Recirculated MND. The PAEs overlie proposed activities that were evaluated in the Final Recirculated MND and would not cause physical impacts.	
Permanent Subsurface Easement (PSUBE) • Bikeway Under I-5 Frwy (Sheet # 7) • BNSF Industry Track (Sheet # 9) Revised list of easements based on Mark Thomas drawings submitted on 01.26.23 and email memo sent on 01.11.23.	The Final Recirculated MND did not describe a permanent subsurface easement. Although this type of easement was not specifically identified in the Final Recirculated MND, other permanent easements were identified and evaluated. The Final Recirculated MND contemplated the need for permanent easements in Section 3.6. This easement to an undercrossing described and evaluated in the Final Recirculated Final Recirculated MND. This PSUBE overlie proposed activities that were evaluated in the Final Recirculated MND and would not cause physical impacts.	A/B/D
Permanent Maintenance Easements (PME) • Caltrans Property (Sheets # 6, 7) • BNSF Undercrossing (Sheet # 9) • Maintenance Access (two Dolly Road Options) (Sheet # 9) • APN 7001-020-039 (Sheet # 11) Revised list of easements based on Mark Thomas drawings submitted on 02.23.23 and Brad Fowler email memo sent on 04.06.23.	The Final Recirculated MND did not describe permanent maintenance easements. Although this type of easement was not specifically identified in the Final Recirculated MND, other permanent easements were identified and evaluated. The Final Recirculated MND contemplated the need for permanent easements in Section 3.6. The Caltrans Property PME in the southwest corner of APN 7003-009-909 contains the revised placement of the bicycle bridge. The BNSF Undercrossing PME on the north side of the channel reflects the change from the prior at-grade crossing to underground. The Dolly Road Maintenance Access to the channel PME provides access from the end of Dolly Road to the channel between APN 066-010-48 and 066-010-53. The PME within the parking of the warehouse through APN 7001-020-039 provides access from Desman Road to the channel. These PMEs overlie proposed activities that were evaluated in the Final Recirculated MND and would not cause physical impacts.	A/B
Physical Improvements		
Earthwork and borings at LACFCD Parcel and four additional bridge/tunnel locations - Net reduction of cut of 600 CY and fill of 4,100 CY provided by Brad email of 11.13.22. Boring and coring information provided by Brad Fowler emails of 01.05.23 and 01.07.23 and call on 02.07.23. (Sheets # 5,6,7,9,11,12,13.) Excavations up to 18.5' in depth were evaluated for the Paleo and archeological reports in the original documents. But design soils sample Borings and Construction Column Corings are	The Final Recirculated MND does not provide cut and fill numbers. Appendix B2-1 provides earthwork amounts but does clarify a net difference between cut and fill. The appendix identifies a total of 5,473 cubic yards of earthwork for Segments P and Q, and none for Segment O. Because a net reduction in earthwork has been presented it would be less than the original amount calculated. The MND does not expressly describe soils boring, but covers equipment for contrition coring (both drilling operations) which is much more invasive. This is not new information of substantial importance and is consistent with this type of construction. The short-term construction noise generated from a drilling rig was described and evaluated in Final Recirculated MND Section 4.13 -Noise and included in Table 4.13-6.	A/E

COMPONENT	ANALYSIS	APPENDIX NO.
now necessary for the bridge column locations to deeper depths. Excavation for small diameter (8") soils borings are expected to reach as much as 120' in depth and actual bridge Column Corings may reach 100' in depth with diameters ranging from 24" to 84" which exceeds excavation depths noted in the original environmental documents.	In addition, four USACE Section 408 permits will be obtained as described in Final Recirculated MND Table 3.7-1.	
Cerritos Bridge Height - 6 feet to 12 feet and deck height increased 18 inches provided by Brad email of 11.13.22 (Sheet # 1).	Mitigation Measure AES-1 was added to the Final Recirculated MND (p. 4.1-10). Implementation of proposed MM AES-1 is adequately analyzed the proposed change and no additional mitigation measures are required.	A/F
Cerritos Bridge Lateral Relocation 25 feet south provided by Brad email of 02.09.23 (Sheet # 1).	Final Recirculated MND Section 4.1 considered the potential impacts of the bridges and, in particular, Segment O (p. 4.1-2). Figure 4.4-8a (p. 4.4-44) depicts the project envelope along the west side of the channel. The lateral relocation is within the identified project footprint. The refinement is consistent with the project's overall goal and would not result in new impacts.	A/F
Block wall(s) nine (9) feet in height on LACFCD property installed adjacent to existing back wall(s).	**MM AES-1** Within six months after construction completion of the proposed project, opening the bikeway for public use, if any homeowner at 17834, 17830, 17824, 17818 or 17814 Vierra Avenue, Cerritos, CA can demonstrate they can physically see individuals traversing the bridge, while standing at grade in their back yard, OC Public Works will offer reimbursement to homeowners of up to $2,500 per household for verifiable contract bills paid to grow a hedge, similar to the hedge height extensions at 17814 & 17808 Vierra Avenue for privacy in accordance with Cerritos City Code. Subsequent to the public review process and project approval, the City of Cerritos received requests from residents to provide additional screening beyond that provided in MM AES-1 related to slightly raising the bridge. In coordination with the City of Cerritos, block wall(s) will be provided. The addition of the block wall is fundamentally equivalent to MM AES-1 that describes the addition of hedges. Because the addition of block walls does not revise MM AES-1 or substantially revise the IS/MND, Guidelines Section 15073.5 is not triggered. Similarly, Guidelines Section 15074.1(a) is not triggered.	A/F

COMPONENT	ANALYSIS	APPENDIX NO.
La Mirada Blvd. Crossing Median Improvements - New Fence and fill-in the median gap (Sheet # 14).	The MND did not expressly describe these features but did describe the proposed bikeway route along La Mirada Boulevard in Project Description Section 3.3.3 (pgs. 3-15 - 3.16). The proposed changes are designed to prevent bicyclists from crossing La Mirada Boulevard apart from the designated path. This is not new information of substantial importance and the refinement is consistent with the project's overall goal. The City of Buena Park's General Plan Mobility Element contains Policy M-1.6, which states: "Encourage the reduction of side entry conflicts along major and primary arterials through the use of access control, consolidation of access points, turn restrictions, and raised medians."	A/G
La Mirada Blvd. Monument 2' wide x 4' tall (south side) – relocate (Sheet # 14).	The relocation of the monument was not expressly described in the Project Description section; however, these types of minor improvements are generally not included. In addition, if the relocation of the monument (est. 2 ft.) were considered a separate activity it would likely quality for a Class 1 CEQA exemption (Sec. 15301(b)).	A
La Mirada Blvd. trees (south side) - Remove and replace trees (Sheet # 14).	The removal and replacement of trees was discussed in Final Recirculated MND Section 3.3 (pgs. 3-15 & 3-16), Section 4.1(a) and (c) on pages 4.15 and 4.19, respectively.	A/H/O
La Mirada Blvd. SCE sidewalk Cabinet (north and south side) – Relocate (Sheet # 14).	The relocation of the cabinet was not expressly described in the Project Description section; however, these types of minor utility relocations and adjustments are generally minor, typical and part of project construction. Final Recirculated MND Section 4.19(a) – Utilities contemplated impacts related to electric power would result in less than significant impacts. By logical extension, this would reasonably include all types of related changes associated with providing power.	A/I
Erect Bridge Structures - In-Channel Work at BNSF Metrolink Corridor provided by Brad email of 01.14.23 (Sheet # 11).	Because the bridge erection activity is no longer confined to the channel maintenance road but will include activity within the channel. Duration of time in the channel will be approximately a month. Final Recirculated MND Table 3.7-1 (p. 3-25) includes a Section 404 and 408 permits for construction activity to occur within the channel.	A/E
Identification of logistic access points to LACFCD flood channel for materials and equipment for USACE (separate location map provided 03.24.23. UltraSystems).	Part of the scope of construction activities already evaluated for the project includes construction methodology to erect bridges and build the bikeway underpass at Valley View within the flood control channel. The USACE generally restricts equipment axle weights to H-10 limitations (10,000 lb/axle) adjacent to channel walls, i.e., lighter equipment so as not to damage channel walls. However, USACE equipment axle weight limitations on the channel bottom are less stringent and allow larger H-20 (20,000 lb/axle) equipment. This is a concrete bottomed	J

COMPONENT	ANALYSIS	APPENDIX NO.
	channel currently allowing vehicular and equipment maintenance access for work on the channel. In order to comply with USACE equipment axle weight limitations for vehicles adjacent to the channel walls running along existing maintenance roads at the channel top, it is expected that some cargo trucks loaded with materials or equipment or truss sections would exceed the axle weight limitations to ferry these materials along the channel top maintenance roads from public roads to get to the bridge or underpass location for staging and construction. However, unloaded cargo trucks, meeting H10 requirements, could run along the channel top maintenance roads from public roadway access points to existing channel bottom access ramps that allow them to reach the channel bottom. Cargo trucks could then travel within the channel along the bottom to nearby public roadway bridges to be loaded by crane with materials and driven back to the work location along the channel bottom. Three channel bottom access points near the work for trucks includes the junction of Coyote Creek North Fork with the Coyote Creek Main Channel in Cerritos, accessed from Valley View Boulevard or Artesia Boulevard, Marquart Ave. and the North Fork of Coyote Creek and the junction of Tulare Road with the main Coyote Creek Channel in Buena Park. Roadway crane operations to briefly load these trucks, depending upon City required truck routes or roadway weight restrictions or USACE 408/401 permit requirements, may occur at the following channel junctions: Artesia Boulevard and the North Fork of Coyote Creek, Walker Street and Coyote Creek, Artesia Boulevard and Coyote Creek, Valley View Boulevard and Coyote Creek, Knott Avenue and Coyote Creek, Stage Road and Coyote Creek, La Mirada Boulevard and Coyote Creek. These locations will be included in the USACE 401/404/408 Permits for approval. No additional environmental impacts are identified with this. No physical changes are needed/anticipated at the crane locations. It is included to show that access to the jobsites for in-channel work have been evaluated and may	

COMPONENT	ANALYSIS	APPENDIX NO.
	use existing OCFCD public channel maintenance roadways or the channel bottom from outside the APE similar to public roadways.	
Likely Billboard Relocation at S. Firestone Blvd and consequent permanent license or permanent easement relocation (Sheet # 7).	The new bikeway approach to S. Firestone Boulevard on the Caltrans property has an existing lighted freeway billboard sign on the property. The proximity of the sign to the bikeway retaining wall may conflict with the proposed bikeway alignment. Therefore, it is proposed to relocate/replace the sign on the Caltrans property further to the north. This may require a license or new/revised easement to encompass the new location. The City of La Mirada continues to allow new freeway billboard signs within the jurisdiction provided they comply with the City of La Mirada Municipal Code. While the activity is not expressly described in the MND, the fact that this sign is simply being moved a short distance within an industrial area and replaced in kind, this minor action within the scope of the project is considered de minimis. Appropriate engineering efforts, including foundation boring to develop sufficient structural foundation design, and sign post construction is similar to all the project's numerous tunnel and bridge columns foundation/construction work already described elsewhere.	A
Minor public right of way APE expansions for associated work areas, shallow bioswales, traffic control and striping • Channel junction corner work area (Sheet # 1) • Valley View Blvd. xing north side (Sheet # 2) • LACFCD r/w north side bioswale (Sheets # 2,3,4) • Artesia Blvd xing (Sheet # 4) • LACFCD r/w south side work area (Sheets # 5,6) • Firestone Blvd xing. (Sheet # 7) • Knott Ave. xing (Sheet # 8) • LACFCD r/w triangular segment (Sheet # 11)	The proposed activities within these minor additional public right of way work area expansions were described and evaluated in the Final Recirculated MND and therefore would not result in physical impacts beyond the impacts originally analyzed.	A

COMPONENT	ANALYSIS	APPENDIX NO.
• LACFCD channel bottom cross channel bridge erection (Sheet # 11) • La Mirada Blvd xing (Sheet # 14) • 03.24.23 Xavier Espinosa email		

Conclusion. The provisions of Guidelines Section 15162 are not triggered that would otherwise require the preparation of an Addendum to the Recirculated MND or Subsequent MND for the following reasons:

- Substantial changes are not proposed to the project that would require major revisions of the Recirculated Mitigated Negative Declaration;
- Substantial changes are not proposed with respect to the circumstances regarding the project that would require major revisions of the Recirculated MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and,
- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous Recirculated Mitigated Negative Declaration was adopted does not identify one or more significant effects not discussed or significant effects previously examined will be substantially more severe.

Tribal Consultation Recommendation. It is our considered opinion that tribal consultation is not needed for the Supplemental HPSR. The reason for this is that all of the added project scope items will not extend the APE out farther than it had been originally by more than a few hundred feet. The original map of the project APE sent to the NAHC already had a half-mile buffer built in and so that was the area for their Sacred Lands File search (to which they then add an undefined larger search area). The same APE plus buffer map is then sent to the individual tribal groups Caltrans consulted with for the original HPSR. Also, that there were no prehistoric sites found within the APE and buffer in the original CHRIS records search, which we believe will be essentially the same APE, also suggests there would be no further cultural resources of interest to warrant a new round of tribal consultation.

Revision Sources:

- Mark Thomas email 11.10.22 and Brad Fowler email 11.14.22
- Brad Fowler email 11.14.22
- Brad Fowler email 11.14.22
- Brad Fowler email 11.14.22
- Brad Fowler email 11.14.22
- Mark Thomas dwg. Option 1 11.08.22 sent 12-13.22 and 01.11.23 version
- Mark Thomas dwg. Option 1 11.08.22 sent 12-13.22
- Mark Thomas dwg. Option 1 11.08.22 sent 12-13.22
- Mark Thomas dwg. Option 1 11.08.22 sent 12-13.22
- Mark Thomas dwg. Option 1 11.08.22 sent 12-13.22
- Mark Thomas Proposed ROW and Easements dwg. 01.26.23
- Brad Fowler email 12.23.22 (8:58 a.m.)
- Brad Fowler email 12.23.22 (8:58 a.m.)

- Brad Fowler email 01.05.23 (11:53.a.m.)
- Brad Fowler email 01.07.23 (9:22.a.m.)
- Brad Fowler email 01.26.23 (9:26.a.m.)
- Brad Fowler emails and call on 02.07.23
- Brad Fowler email of 02.09.23
- Mark Thomas dwg. Sent 02.23.23
- Brad Fowler Email of 03-06-23
- Brad Fowler Email of 03-09-23
- Brad Fowler email of 03-16-23
- Brad Fowler Email of 03-23-23
- Billye Breckenridge (Ultra) email 03-24-23
- Xavier Espinosa email APE 03-24-23
- Billye Breckenridge (Ultra) email APE 03-29-23
- Billye Breckenridge (Ultra) email APE 03-30-23
- Brad Fowler email of 03-30-23
- Brad Fowler email of 04-03-23
- Brad Fowler email 04-06-23
- Brad Fowler email 06-01-23
- Brad Fowler email 06-06-23
- Brad Fowler email 06-13-23
- Brad Fowler email 06-14-23
- CRM Tech email 06-01-23
- CRM Tech email 06-03-23
- Billye Breckenridge (Ultra) email 06-01-23
- Billye Breckenridge (Ultra) email 06-02-23
- Steve Oneil (Ultra) email 06-01-23
- Steve Oneil (Ultra) email 06-02-23
- Steve Oneil (Ultra) email 06-13-23
- Xavier Espinosa email APE 06.02.23
- Xavier Espinosa email APE 06.05.23
- Ravi Shah email 06-13-23
- Betsy Lindsay email 06-13-23
- Betsy Lindsay email 06-14-23
- Billye Breckenridge (Ultra) email APE 06-26-23
- Brad Fowler email 7-06-23

Attachment 5

NEW USFWS SPECIES LIST-August 19, 2024

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901

In Reply Refer To: 08/19/2024 19:48:30 UTC
Project Code: 2023-0100164
Project Name: OC Loop O, P, Q 2nd Revalidation

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see Migratory Bird Permit | What We Do | U.S. Fish & Wildlife Service (fws.gov).

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

PROJECT SUMMARY

Project Code: 2023-0100164
Project Name: OC Loop O, P, Q 2nd Revalidation
Project Type: Recreation - New Construction
Project Description: OC Loop O, P, Q bike path: Caltrans CE 2nd Revalidation for minor changes
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.8773718,-118.01677765172312,14z



Counties: Los Angeles and Orange counties, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Pacific Pocket Mouse *Perognathus longimembris pacificus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8080	Endangered

BIRDS

NAME	STATUS
California Least Tern *Sternula antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

REPTILES

NAME	STATUS
Southwestern Pond Turtle *Actinemys pallida* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot *Spea hammondii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Salt Marsh Bird's-beak *Cordylanthus maritimus ssp. maritimus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6447	Endangered
Ventura Marsh Milk-vetch *Astragalus pycnostachyus var. lanosissimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1160	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Billye Breckenridge
Address: 16431 Scientific Way
City: Irvine
State: CA
Zip: 92618
Email bbreckenridge@ultrasystems.com
Phone: 9495050945

LEAD AGENCY CONTACT INFORMATION

Lead Agency: County of Orange

Attachment 6

2ND SUPPLEMENTAL HPSR PACKAGE

State of California Transportation Agency Department of Transportation

SUPPLEMENTAL HISTORIC PROPERTY SURVEY REPORT

1. UNDERTAKING DESCRIPTION AND LOCATION

District	*County*	*Federal Project. Number. (Prefix, Agency Code, Project No.)*	*Location*	*Previous HPSR Submittal Date*
12	OC/LA	ATPL 5955(112)	Cerritos, La Mirada, and Buena Park	Oct. 4, 2021

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated May 27, 2022 and executed by FHWA and Caltrans. The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA).

Changes to Project Description Since Previous Submittal

In cooperation with the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans), the Orange County Department of Public Works has proposed an undertaking known as the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project in the Cities of Cerritos, La Mirada, and Buena Park, along the boundary between Los Angeles and Orange Counties, within Caltrans District 12 (Federal Aid Project No. ATPL-5955(112); see Attachment A). Since the completion of the original HPSR for the undertaking in November 2020 and a previous Supplemental HPSR in October 2021, the Orange County Department of Public Works has made further modifications to the project plans in response to technical issues encountered in the design process or raised by the Los Angeles District of the U.S. Army Corps of Engineers. These modifications include the following components:

- Relocating the Coyote Creek Channel overcrossing in the City of Cerritos to a new site approximately 25 feet further to the south, increasing the height of the bridge from six feet to 12 feet, and adding a nine-foot-tall privacy wall along the boundary of five adjacent single-family residential properties near the western end of the bridge (Parcel Nos. 7022-022-003 to 7022-022-007; see Attachment A, Map 3, Sheet 1).
- Reorienting the southern approach to the bridge over the Union Pacific Railroad (UPRR) in the City of La Mirada from its original course parallel to the bikeway to a new course perpendicular to the latter, extending further into an adjacent vacant property under Caltrans ownership (Parcel No. 7003-009-909; see Attachment A, Map 3, Sheet 7).
- Reconfiguration of the southern approach to the bridge over the Burlington Northern Santa Fe (BNSF) Railway mainline and Stage Road near the boundary between the Cities of Buena Park and La Mirada into a loop over an adjacent vacant property owned by the Los Angeles County Flood Control District (Parcel No. 066-581-05; see Attachment A, Map 3, Sheet 11).
- Construction/improvement of short segments of maintenance road along the Coyote Creek Channel, within the existing channel right-of-way (see Attachment A, Map 3, Sheets 6-9, 11, and 12).
- Moving an existing advertising billboard on Parcel No. 7003-009-909 to a different location on the same property, approximately 700 feet to the northwest (see Attachment A, Map 3, Sheet 7).
- Removal and replacement of trees along La Mirada Boulevard in the City of Buena Park, as well as other minor streetscape modifications in that area, such as relocation of utility cabinets and installation of a fence in the median (see Attachment A, Map 3, Sheet 14).
- Geotechnical boring to be conducted at various locations along the project route.

[SHPSR form rev 06/01/22] Caltrans, Division of Environmental Analysis. Copyright © 2020 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

- Acquisition of additional right-of-way and easements, including temporary construction easements, permanent maintenance easements, permanent sidewalk easements, permanent aerial easements, and permanent underground easements, from adjacent properties throughout the length of the project alignment to accommodate the new or modified project elements outlined above.
- Identification of five logistic access points at or near the intersections of the Coyote Creek (East Fork) Channel with Valley View Street, Artesia Boulevard, Knott Avenue, Stage Road, and La Mirada Boulevard, where construction equipment and materials will be loaded by cranes onto flatbed cargo trucks positioned on the channel bottom.

2. CHANGES TO AREA OF POTENTIAL EFFECTS

In accordance with Section 106 PA Stipulation VIII.A, the revised Area of Potential Effects (APE) for the undertaking was established in consultation with Victoria Stosel, Caltrans PQS, and Jonathan Lawhead, District 12 Local Assistance Engineer, on March 7, 2024. The APE maps are located in Attachment A.

The revised APE encompasses the maximum extent of ground disturbance required by the project modifications, both horizontally and vertically, as well as adjacent properties where existing buildings may receive visual, atmospheric, or other effects as a result of the new or modified project elements. The geographic scope of the current supplemental survey consists of the following additions to the APE:

- Additional areas along the proposed bikeway alignment, within the Coyote Creek (East Fork) Channel or the rights-of-way of intersecting public roadways, that will be included in the increased project footprint as a result of the design modifications (see Attachment A, Map 3, Sheets 1-14).
- Additional right-of-way and easements to be obtained from the following adjacent properties: Parcel Nos. 7001-014-034, 7001-015-017, 7001-020-039, 7003-009-909, 7003-011-036, and 7022-023-022 in Los Angeles County; Parcel Nos. 066-010-30, 066-010-48, 066-010-53, 066-581-05, 066-582-03, 066-584-04, 066-584-09, and 276-031-05 in Orange County (see Attachment A, Map 3, Sheets 1, 2, and 3-14).
- The remainders of two commercial properties where extensive easements will be required on all sides of the existing buildings, namely Parcel Nos. 7001-020-039 in La Mirada and 7022-023-022 in Cerritos (see Attachment A, Map 3, Sheets 1 and 11).
- Remaining portions of the two vacant properties that contain the reconfigured approaches to the UPRR and BNSF overcrossings, specifically Parcel No. 7003-009-909 in La Mirada in its entirety and the portion of Parcel No. 066-581-05 in Buena Park lying outside the existing channel right-of-way (see Attachment A, Map 3, Sheets 7 and 11).
- The five residential properties near the western end of the channel overcrossing in Cerritos, namely Parcel Nos. 7022-022-003 to 7022-022-007, where the increased bridge height and the addition of the privacy wall would increase the potential for indirect effects on the buildings (see Attachment A, Map 3, Sheet 1).

Collectively, the additional APE measures approximately 30.1 acres in total, of which 29.5 acres will be subject to potential ground disturbance during the undertaking. The vertical extent of the APE has been increased to a maximum depth of 120 feet to accommodate the current design for

[SHPSR form rev 06/01/22] Caltrans, Division of Environmental Analysis. Copyright © 2020 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

geotechnical borings and bridge piles. The height of the APE is now 39 feet to accommodate the planned railroad overcrossings. The newly identified logistic access points are confined within the geographic limits of the existing APE, and all activities there will be carried out using existing infrastructure. Therefore, the access points do not alter the horizontal or vertical extent of the APE.

3. UPDATED CONSULTING PARTIES / PUBLIC PARTICIPATION

☒ Local Government

Mike O'Grady, Environmental Services Manager with the City of Cerritos Community Development Department, was contacted by electronic mail on April 17 and May 9, 2023, and by telephone on April 17, April 20, and May 9, 2023. No response has been received. (See Attachment E)

☒ Local Historical Society / Historic Preservation Group

The Orange County Historical Society/Heritage Museum was contacted by electronic mail on April 19, 2023, and by telephone on April 20 and May 8, 2023. No comments have been received. (See Attachment E)

☒ Because the minor changes in the project designs did not alter the project footprint substantially, it was determined that previous Native American consultation efforts were sufficient.

4. SUMMARY OF ADDITIONAL IDENTIFICATION EFFORTS

☒ Other Sources consulted:

- Archival records of the County of Los Angeles and the City of Cerritos, including real property assessment records and building safety records.
- U.S. Geological Survey topographic maps and geological maps (1896-2016).
- Aerial photographs of the project vicinity (1952-2021).
- Results of cultural resources records search conducted in 2020 for the original HPSR. (No additional records search was conducted because the additional APE remains well within the scope of the 2020 records search.)

☒ Results:

The only features of historical or prehistoric origin identified in the additional APE during this study are four residences and a warehouse constructed in 1970-1972. Identified through historical background research and the field survey, these five properties were recorded into the California Historical Resources Inventory and evaluated as potential "historic properties" during this study (see Attachment D). The other two buildings that have been incorporated into the APE, a residence and a warehouse, are modern in origin, both constructed between 1999 and 2006, and thus require no further consideration.

The supplemental survey also encountered in the additional APE three linear features of historical origin that were previously identified as lying partially within the APE during the 2020 and 2021 surveys, namely the Coyote Creek (East Fork) Channel, the BNSF system (19-186804/30-176663; formerly the Atchison, Topeka and Santa Fe [ATSF] Railway), and the UPRR system (19-186110/30-176630; formerly the Southern Pacific Railroad [SPRR]). All three of them have been presumed eligible for listing in the National Register of Historic Places for the purpose of this project with the understanding that the project will not have an adverse effect on any of them (see Attachment B, Parts 2-4, and Attachment F).

[SHPSR form rev 06/01/22] Caltrans, Division of Environmental Analysis. Copyright © 2020 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

5. ADDITIONAL PROPERTIES IDENTIFIED

☒ Bai "Tom" Tang, who meets the Professionally Qualified Staff (PQS) Standards in Section 106 PA Attachment 1 as a Principal Architectural Historian, has determined that the only other properties present within the revised APE meet the criteria for Section 106 PA Attachment 4 (**Properties Exempt from Evaluation**).

Parcel No.	*Address/Location*	*Community*	*Property Type*	*Year Built*
7001-020-039	15250 Desmon Rd.	La Mirada	2	1999
7003-009-909	Billboard on Firestone Blvd.	La Mirada	1	1959
7022-022-007	17834 Vierra Ave.	Cerritos	2	2005-2006

☒ Caltrans has determined there are additional cultural resources within the revised APE that were evaluated as a result of this project and are **not eligible** for inclusion in the NRHP. Under Section 106 PA Stipulation VIII.C.6, Caltrans requests SHPO's concurrence in this determination. None are State-owned.

Parcel No.	*Address/Location*	*Community*	*Year Built*	*Status Code*	*MRN**
7022-022-003	17814 Vierra Ave.	Cerritos	1970	6Z	1
7022-022-004	17818 Vierra Ave.	Cerritos	1970	6Z	2
7022-022-005	17824 Vierra Ave.	Cerritos	1970	6Z	3
7022-022-006	17830 Vierra Ave.	Cerritos	1970-1972	6Z	4
7022-023-022	16741 Fabrica Way	Cerritos	1972	6Z	5

* Map Reference Number; see Attachment A, Map 3, Sheet 1.

☒ The following additional properties within the revised APE are **considered eligible** for inclusion in the NRHP for the purposes of this project only because evaluation was not possible, in accordance with Section 106 PA Stipulation VIII.C.4 (see Attachment B, Parts 2-4, and Attachment F).

Primary No.	*Name*	*Location*	*Community*	*Status Code*
19-186110/ 30-176630	SPRR/UPRR	Between Firestone Blvd. and Artesia Blvd.	La Mirada	3S
19-186804/ 30-176663	ATSF/BNSF	Near Stage Rd.; near Knott Ave.	Buena Park	3S
Pending	Coyote Creek (East Fork) Channel	Throughout the APE	Various	3S

6. REVISED FINDING FOR THE UNDERTAKING

☒ Caltrans, pursuant to Section 106 PA Stipulation IX.A, has determined a Finding of **No Historic Properties Affected** is appropriate for this undertaking because the following historic properties will not be affected:

Primary No.	*Name*	*Location*	*Community*	*Status Code*
19-186110/ 30-176630	SPRR/UPRR	Between Firestone Blvd. and Artesia Blvd.	La Mirada	3S
19-186804/ 30-176663	ATSF/BNSF	Near Stage Rd.; near Knott Ave.	Buena Park	3S
Pending	Coyote Creek (East Fork) Channel	Throughout the APE	Various	6Y

[SHPSR form rev 06/01/22] Caltrans, Division of Environmental Analysis. Copyright © 2020 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

7. ADDITIONAL CEQA CONSIDERATIONS

☒ Not applicable; **Caltrans is not the lead agency under CEQA**.

8. LIST OF ATTACHED DOCUMENTATION

☒ Revised Project Vicinity, Location, and APE Maps
- Attachment A

☒ Supplemental Historical Resources Evaluation Report (SHRER)
- Bai "Tom" Tang and Terri Jacquemain (revised December 6, 2023): Supplemental Historical Resources Evaluation Report: OC Loop Segments O, P, and Q, Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, California (Attachment D)

☒ Supplemental Archaeological Survey Report (SASR)
- Stephen O'Neil (revised December 8, 2023): Supplemental Archaeological Survey Report: OC Loop Segments O, P, and Q, Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, California (Attachment C)

☒ Other
- Previous HPSRs and associated documents (Attachment B)
- Correspondence with local community representatives (Attachment E)
- Correspondence regarding assumption of eligibility, Coyote Creek (East Fork) Channel (Attachment F)

9. SUPPLEMENTAL HPSR PREPARATION AND CALTRANS APPROVAL

Prepared by: _____ June 6, 2024
Bai "Tom" Tang, Principal Architectural Historian — Date
CRM TECH, 1016 E. Cooley Drive, Suite A/B, Colton, CA 92324

Reviewed for
Approval by: Victoria Stosel — June 10, 2024
District 12 Caltrans PQS: — Date

Approved by: _____ June 19, 2024
District 12 EBC: Alben Phung — Date

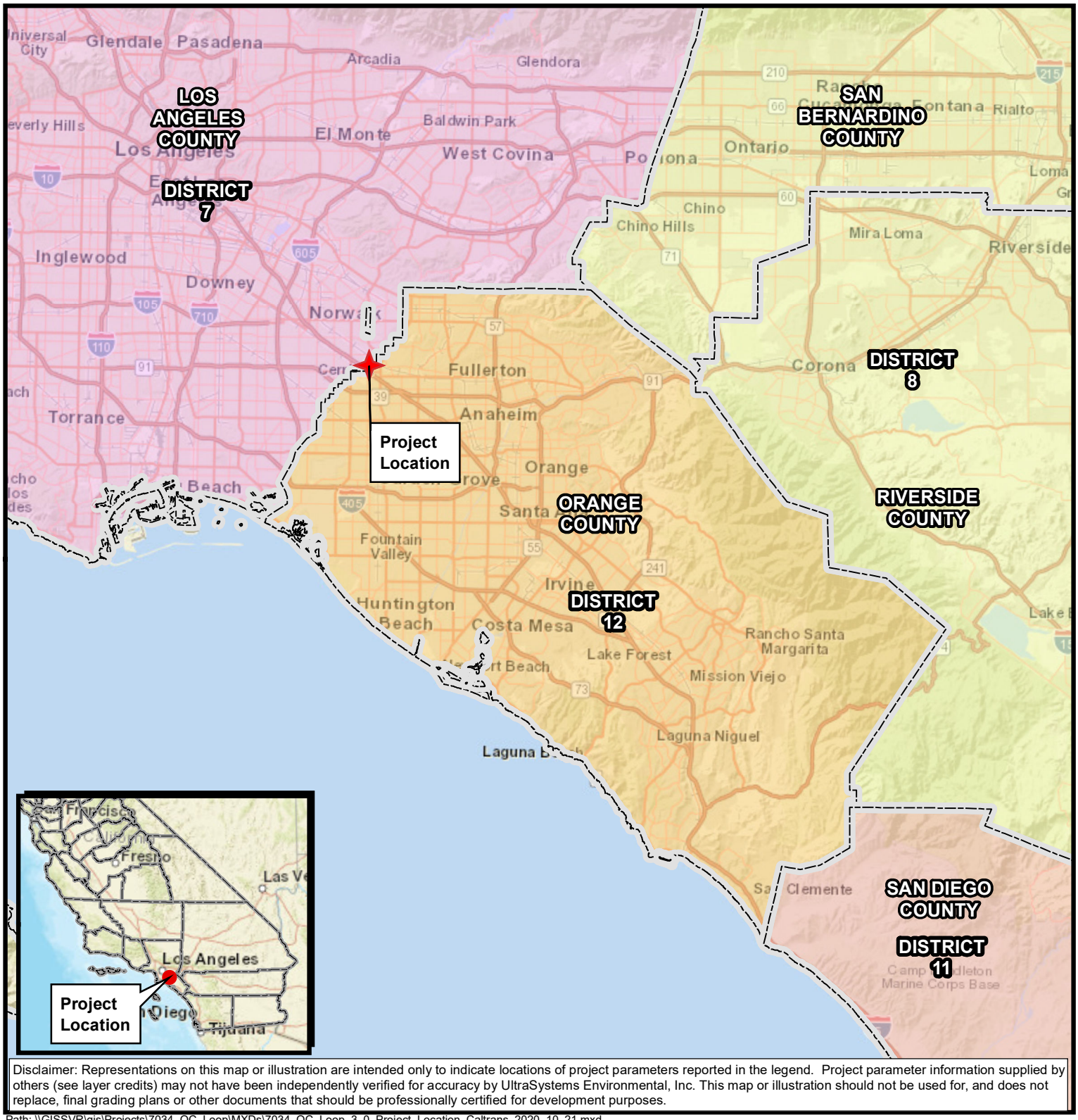
[SHPSR form rev 06/01/22] Caltrans, Division of Environmental Analysis. Copyright © 2020 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

ATTACHMENT A
PROJECT MAPS

OC LOOP SEGMENTS O, P, AND Q
COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_3_0_Project_Location_Caltrans_2020_10_21.mxd

October 21, 2020

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community; California Department of Forestry and Fire Protection, May 2009; UltraSystems Environmental, Inc., 2020.

Scale: 1:506,880

N

0 4 8 Miles

0 4.5 9 Kilometers

Legend

Project Location

County Boundary

Caltrans District

7

8

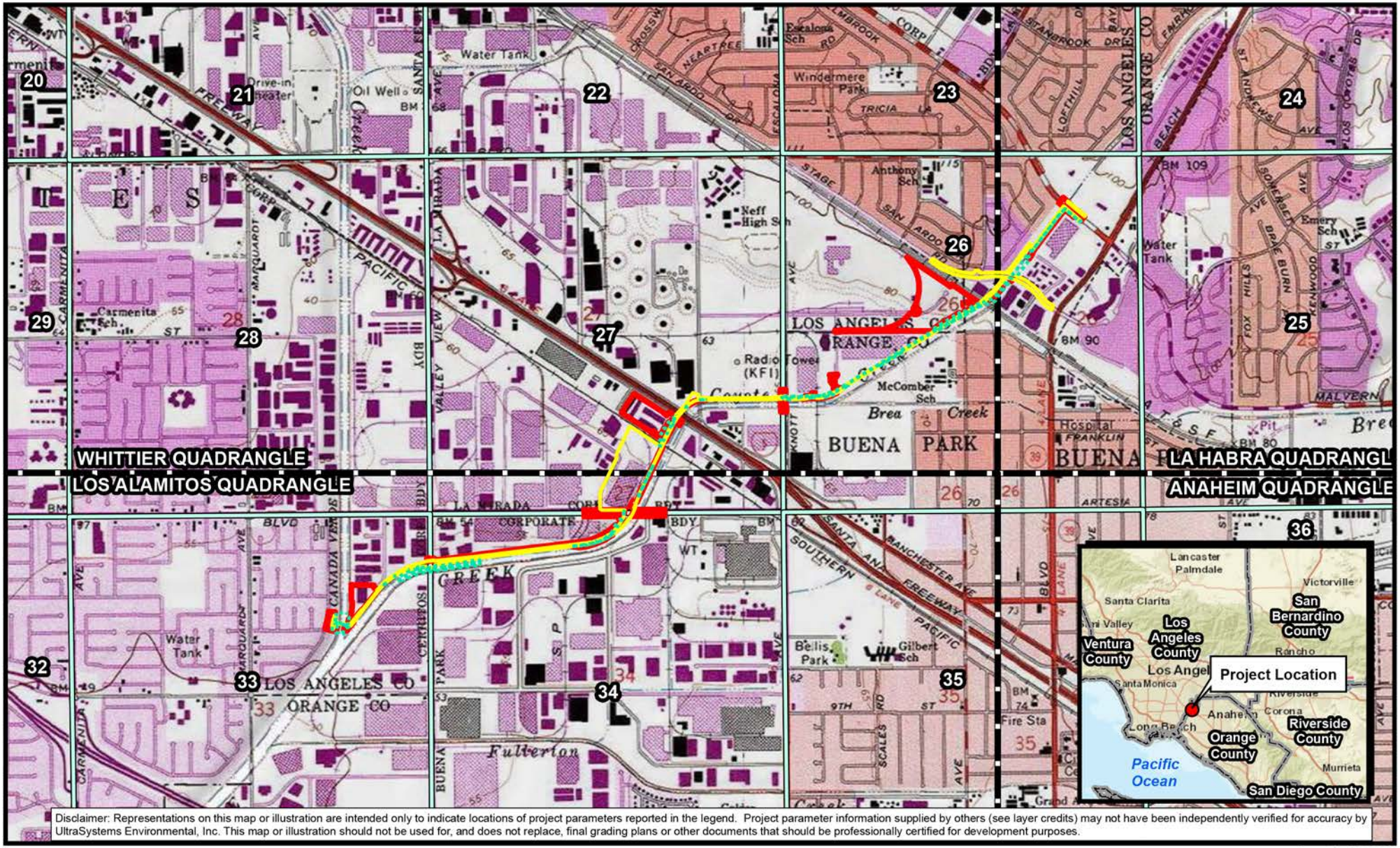
11

12

OC Loop
Segments O, P, and Q
Coyote Creek Bikeway Project

Map 1. Project Vicinity

UltraSystems
environmental • management • planning



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_AppendA_Map2Locatiom_WholeAPE_2023_12_08_A.mxd

December 08, 2023

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community,

Copyright:© 2013 National Geographic Society, i-cubed; UltraSystems Environmental, Inc., 2023.

N

Scale: 1:24,000

0 1,000 2,000 Feet

0 250 500 Meters

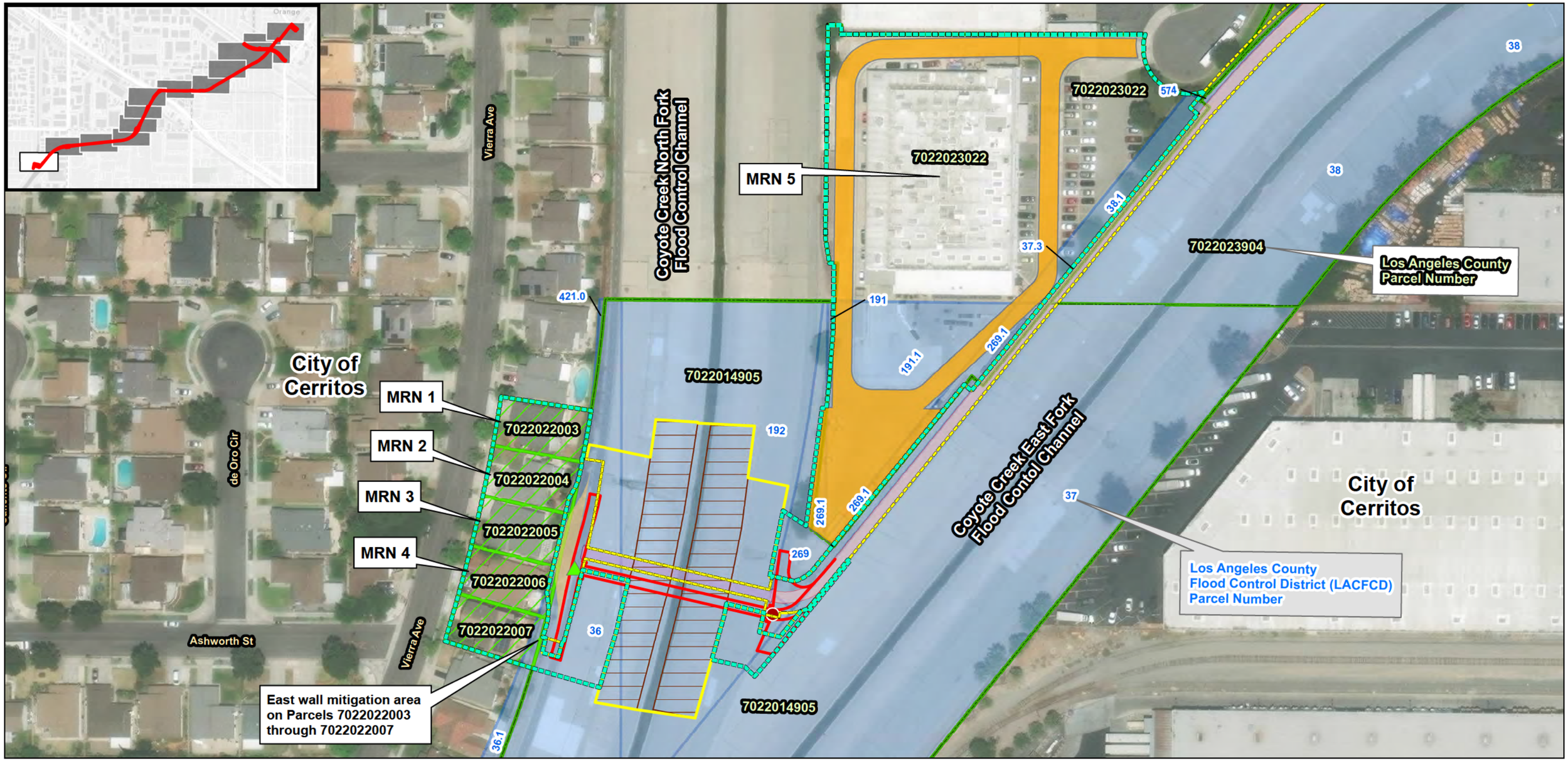
Legend

- NEW Additional Area of Potential Effects (APE) (2nd Revalidation)
- Original Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Quadrangle Boundary
- Section Boundary

OC Loop Segments O, P, and Q
Coyote Creek Bikeway Project

Map 2. Project Location

UltraSystems environmental • management • planning



Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26_pg1_REV_12_06.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Legend

- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Proposed Bikeway Alignment
- NEW Temporary Construction Easement (TCE)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding Only
- NEW Proposed Location of Geotechnical Boring Only
- Original Segment O Class I Bikeway
- 1st Revalidation-Staging Area
- 1st Revalidation-Prefabricated Truss Bridge
- 1st Revalidation-Re-align Existing Bike Path
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

*Note: MRN = Map Reference Number

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Caltrans District 12
APPROVALS

Jonathan Lawhead — 03/07/2024

Signature: Jonathan Lawhead
Caltrans District 12 Local Assistance Engineer — Date

Victoria Stosel — 3/4/2024

Signature: Victoria Stosel - District 8
Caltrans Professionally Qualified Staff — Date

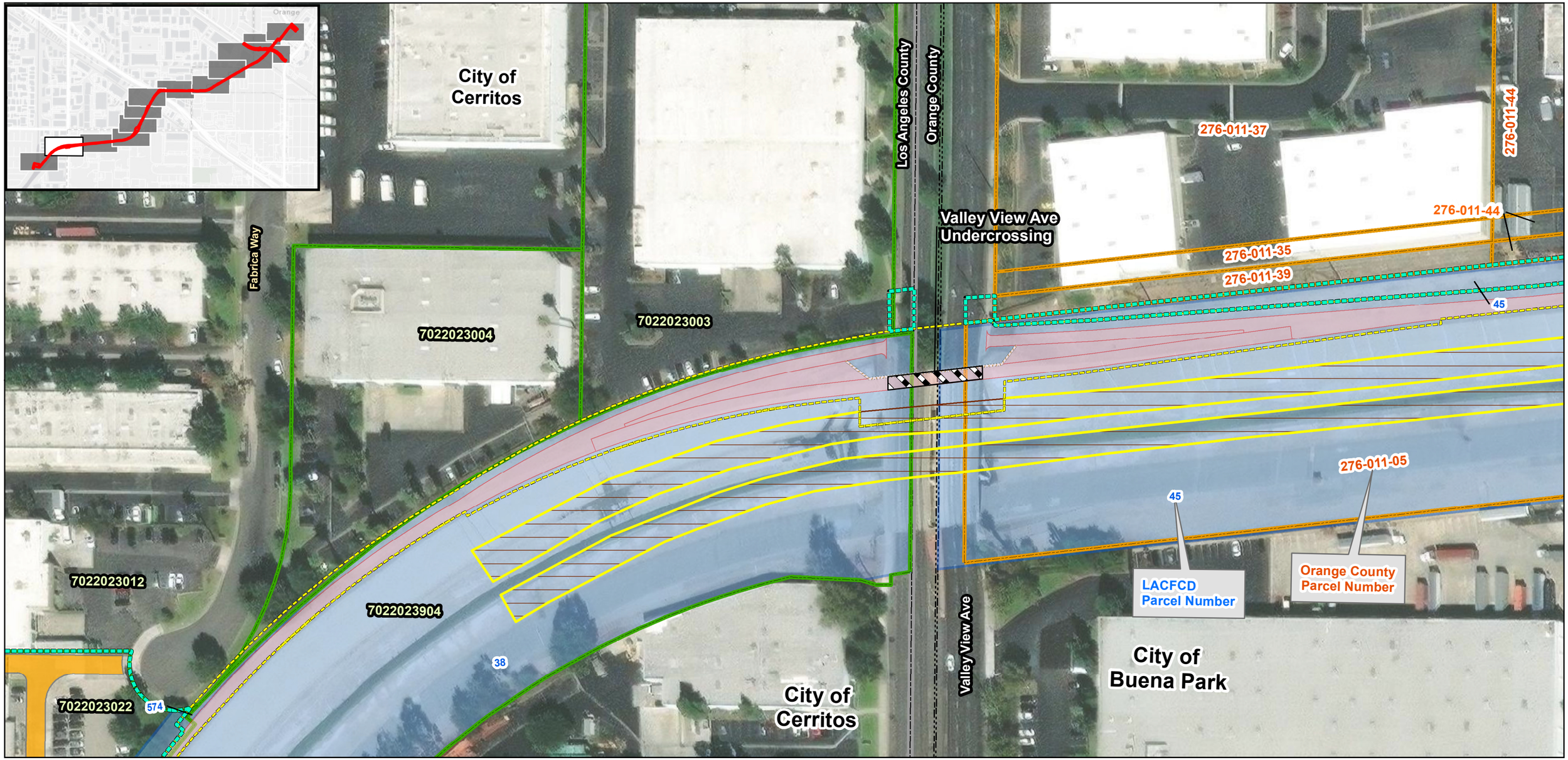
OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 1 of 14)

UltraSystems environmental • management • planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

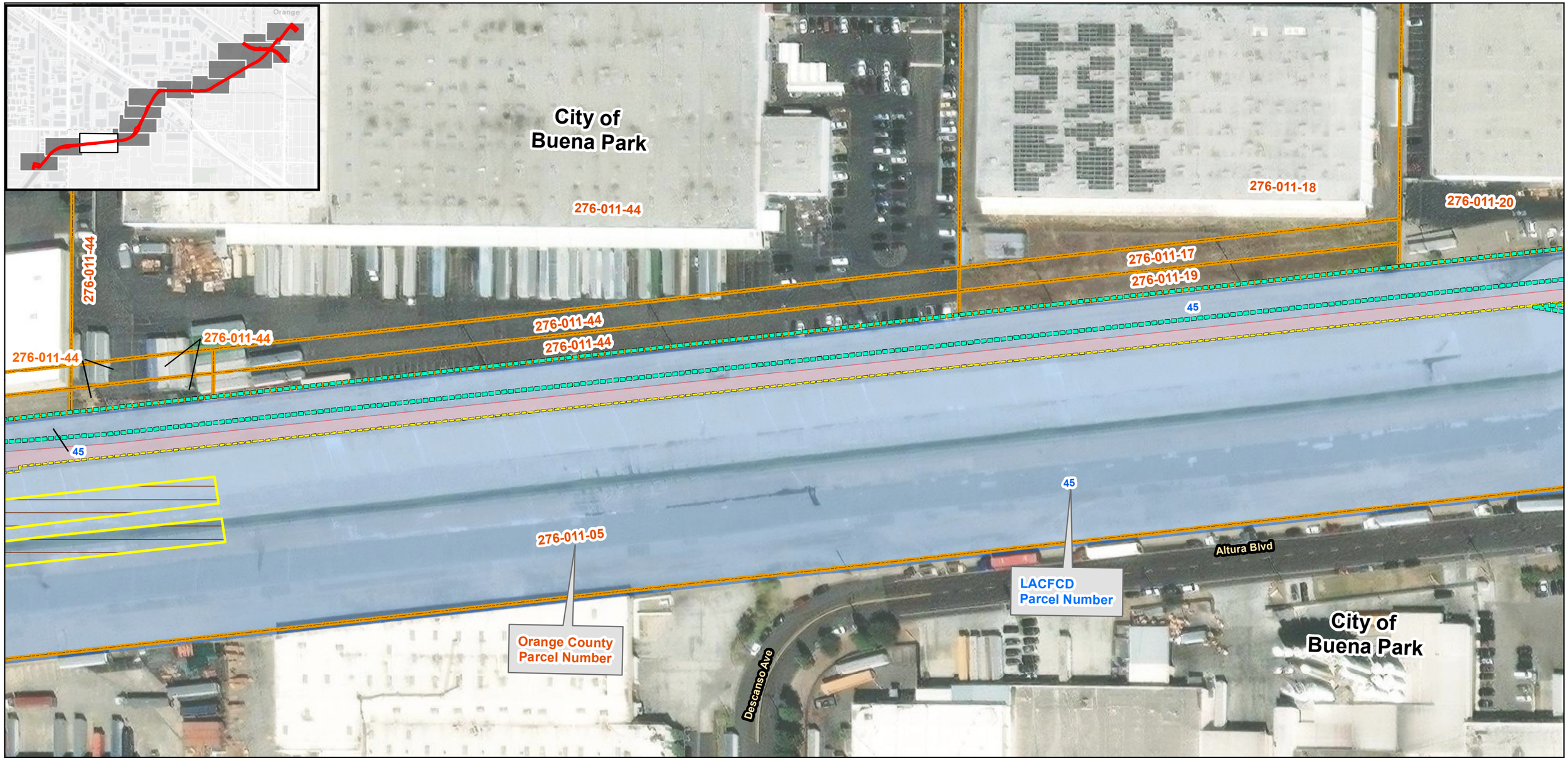
- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Temporary Construction Easement (TCE)
- Original Segment O Class I Bikeway
- 1st Revalidation-Staging Area
- 1st Revalidation-Undercrossing
- 1st Revalidation-Wall
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental•management•planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

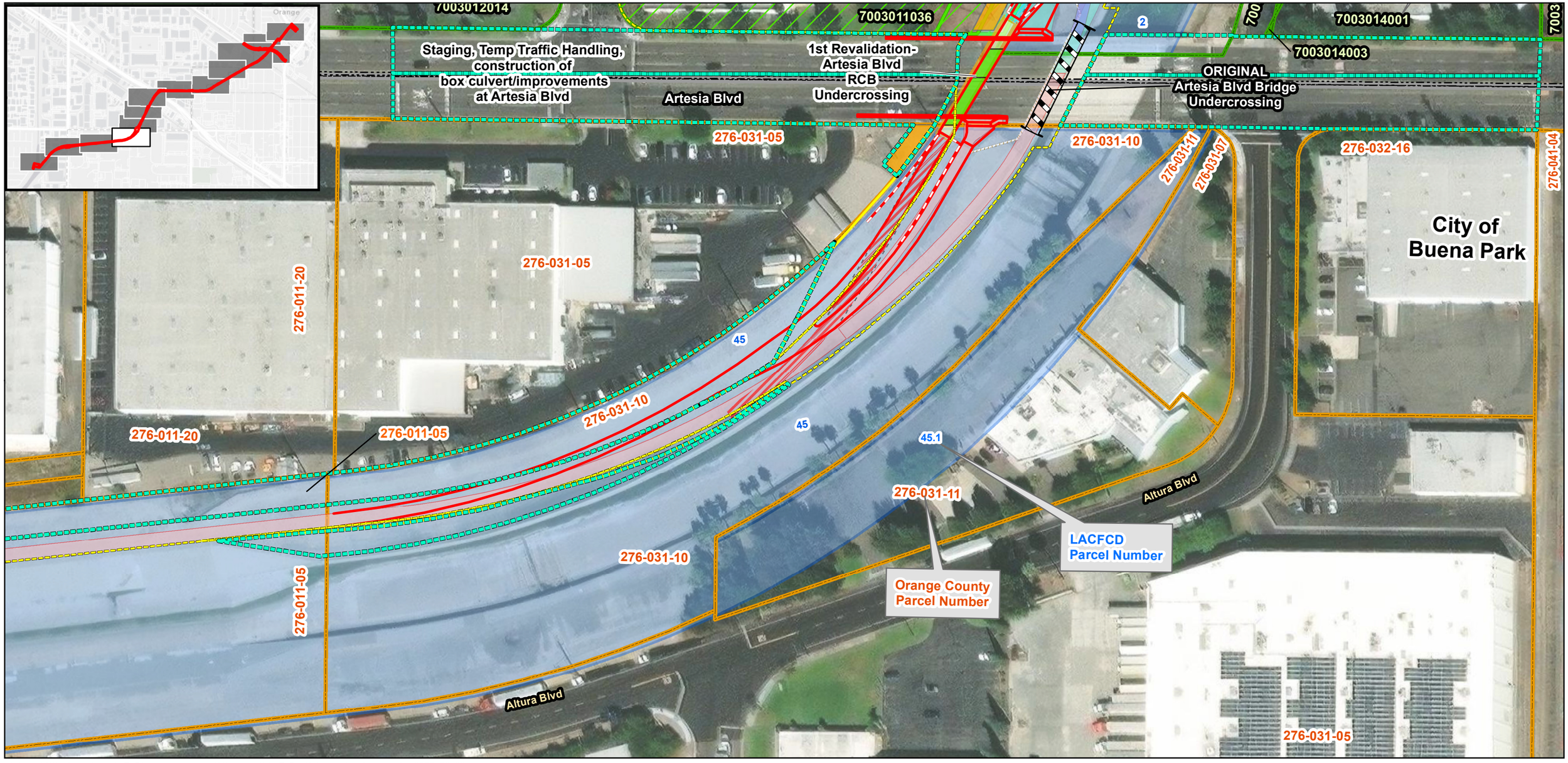
- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment O Class I Bikeway
- 1st Revalidation-Staging Area
- Orange County Parcels
- LACFCD ROW
- County Boundary

OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental•management•planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

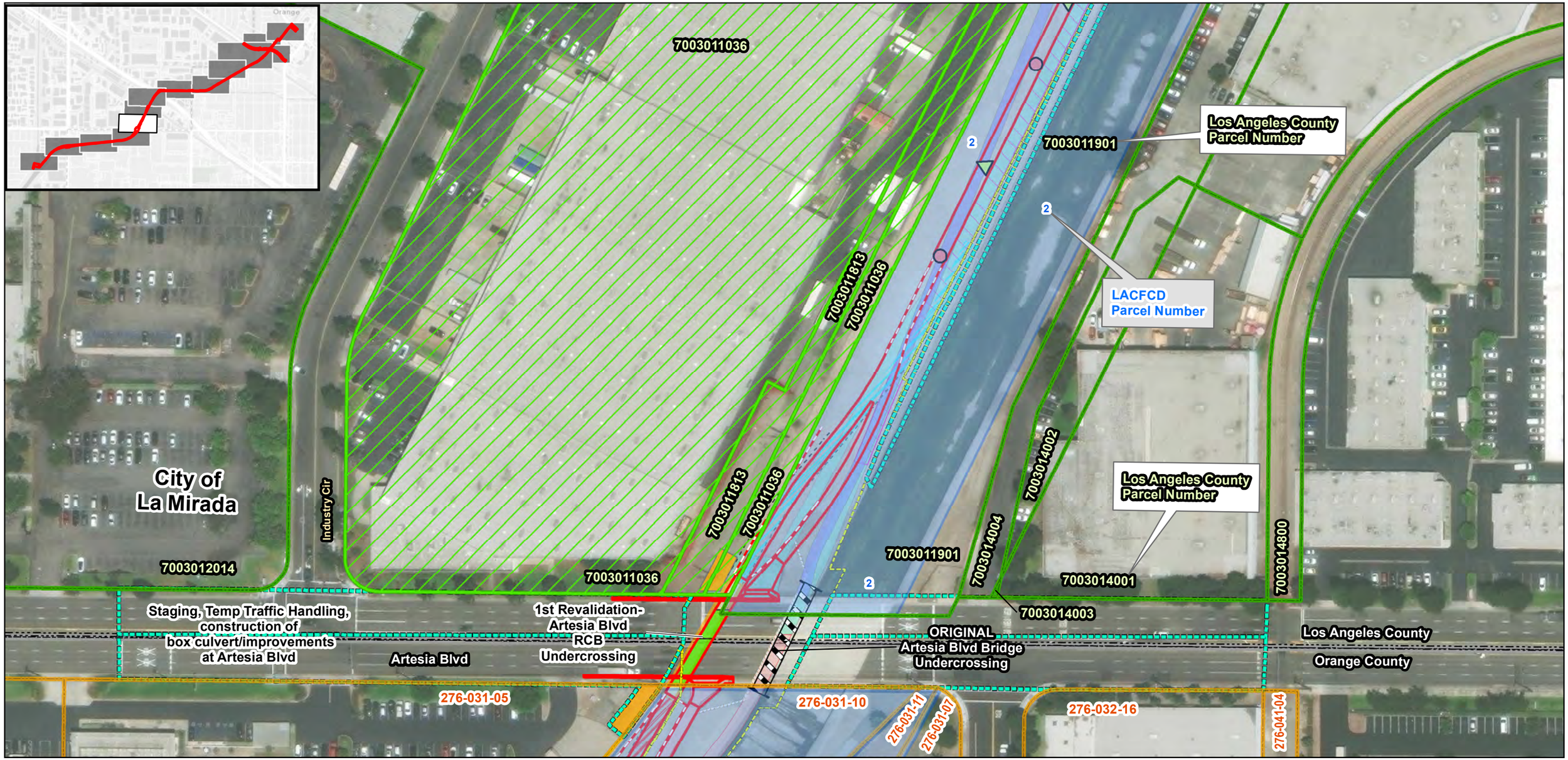
- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Proposed Bikeway Alignment
- NEW Retaining Wall
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Original Segment O Class I Bikeway
- Original Segment P Class I Bikeway
- 1st Revalidation - Artesia Open Cut Box Culvert
- 1st Revalidation-Segment O Artesia Bikeway
- 1st Revalidation-Segment P Artesia Bikeway
- 1st Revalidation-Retaining Wall
- 1st Revalidation-UPRR Overcrossing Bikeway Alignment
- 1st Revalidation-Undercrossing
- 1st Revalidation-Wall
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 4 of 14)

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_AddAPE_NewBoring_FOR2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

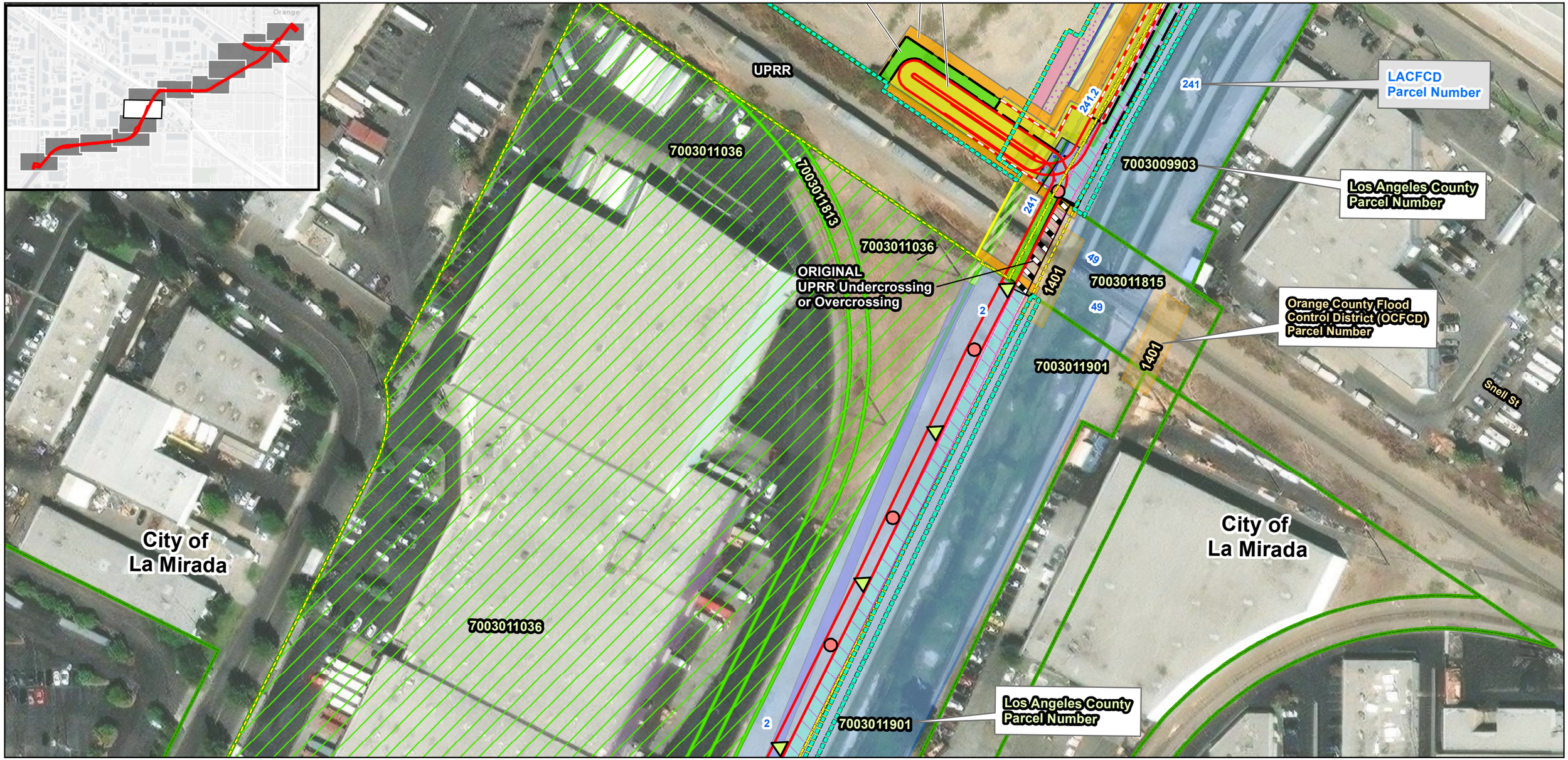
- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Proposed Bikeway Alignment
- NEW Retaining Wall
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Original Segment O Class I Bikeway
- Original Segment P Class I Bikeway
- 1st Revalidation - Artesia Open Cut Box Culvert
- 1st Revalidation-Segment O Artesia Bikeway
- 1st Revalidation-Segment P Artesia Bikeway
- 1st Revalidation-Retaining Wall
- 1st Revalidation-UPRR Overcrossing Bikeway Alignment
- 1st Revalidation-Undercrossing
- 1st Revalidation-Potential UPRR Overcrossing
- 1st Revalidation-Wall
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 5 of 14)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

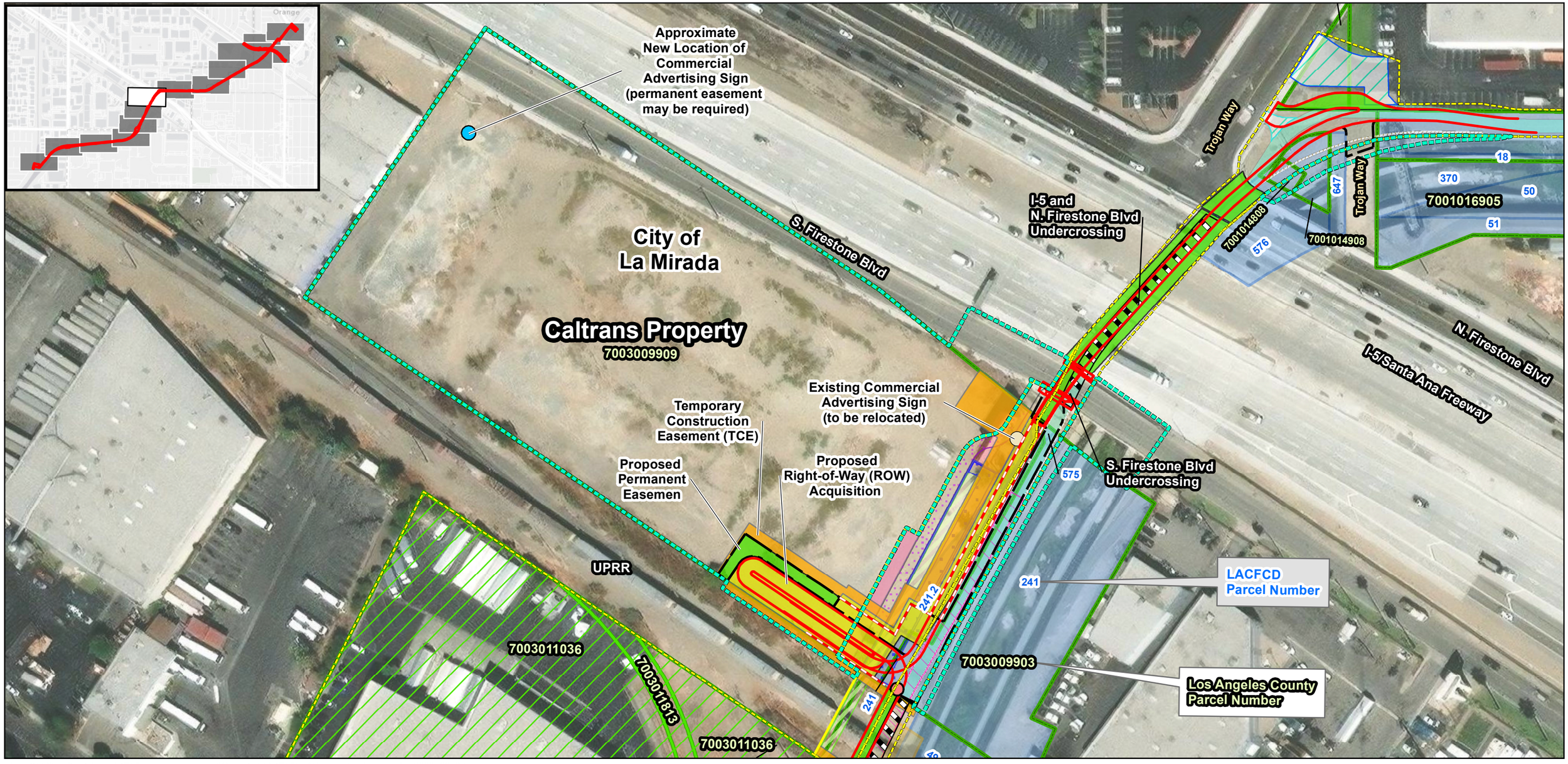
- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Proposed Bikeway Alignment
- NEW Retaining Wall
- NEW Maintenance Road
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Original Segment P Class I Bikeway
- 1st Revalidation-Access & Maintenance Road
- 1st Revalidation-UPRR Overcrossing Bikeway Alignment
- 1st Revalidation-Switchback Ramp
- 1st Revalidation-UPRR Overcrossing Bridge
- 1st Revalidation-Undercrossing
- 1st Revalidation-Potential UPRR Overcrossing
- 1st Revalidation-Wall
- 1st Revalidation-Concrete Column
- 1st Revalidation-Permanent Easement for Access/Maintenance Road
- 1st Revalidation-Right-of-Way (ROW) Acquisition
- 1st Revalidation-Temporary Construction Easement (TCE)
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- LACFCD ROW
- OCFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 6 of 14)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Proposed Bikeway Alignment
- NEW Retaining Wall
- NEW Maintenance Road
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Existing Commercial Advertising Sign (to be relocated)
- New Location of Commercial Advertising Sign (permanent easement may be required)
- Original Segment P Class I Bikeway
- 1st Revalidation-Access & Maintenance Road
- 1st Revalidation-Road Undercrossing Alignment
- 1st Revalidation-Switchback Ramp
- 1st Revalidation-UPRR Overcrossing Bridge
- 1st Revalidation-Undercrossing
- 1st Revalidation-Potential UPRR Overcrossing
- 1st Revalidation-Wall
- 1st Revalidation-Potential Driveway
- 1st Revalidation-Easement
- 1st Revalidation-Concrete Column
- 1st Revalidation-Permanent Easement for Access/Maintenance Road
- 1st Revalidation-Right-of-Way (ROW) Acquisition
- 1st Revalidation-Temporary Construction Easement (TCE)
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- LACFCD ROW
- OCFCD ROW
- City Boundary
- County Boundary

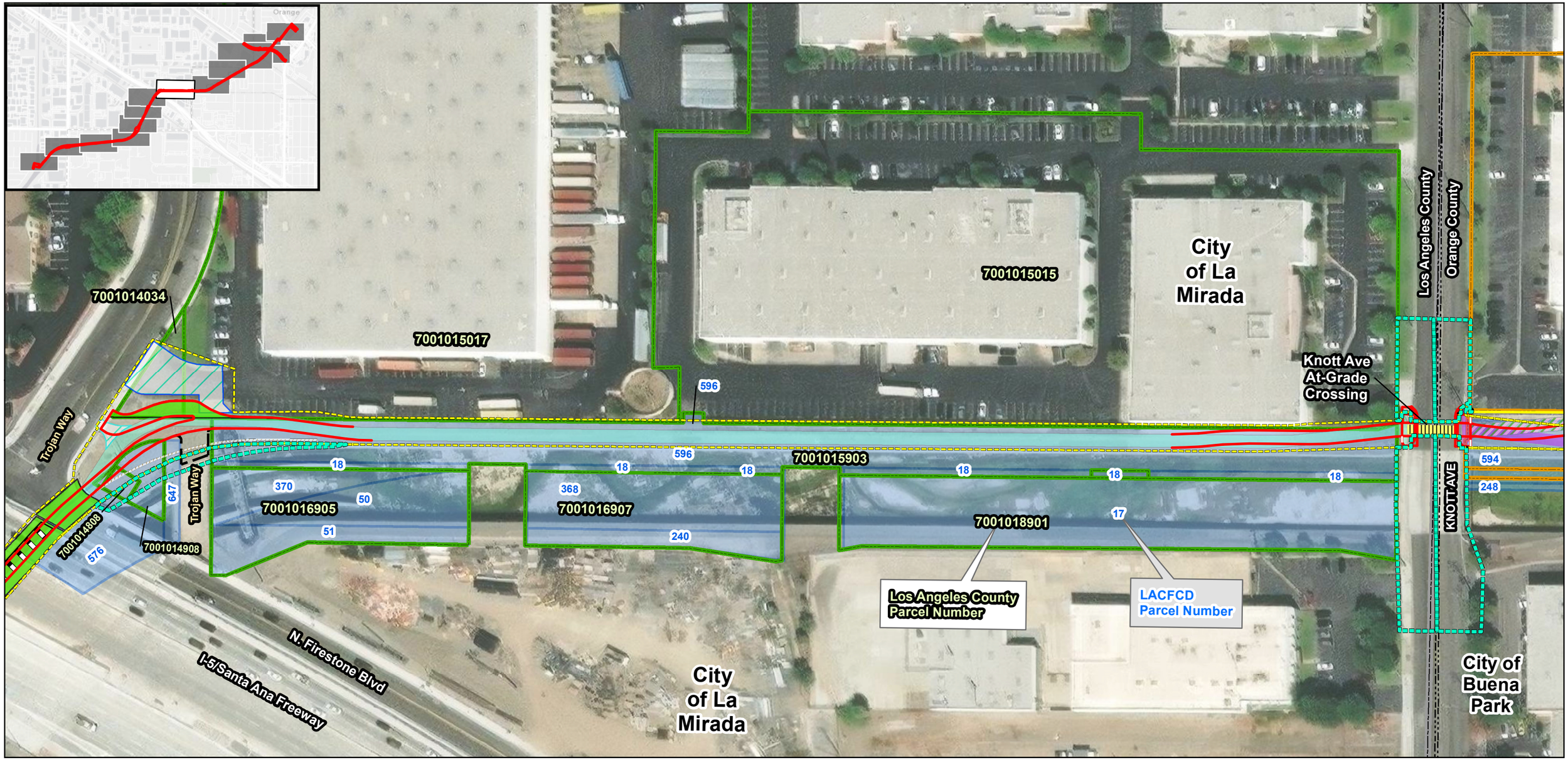
OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 7 of 14)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

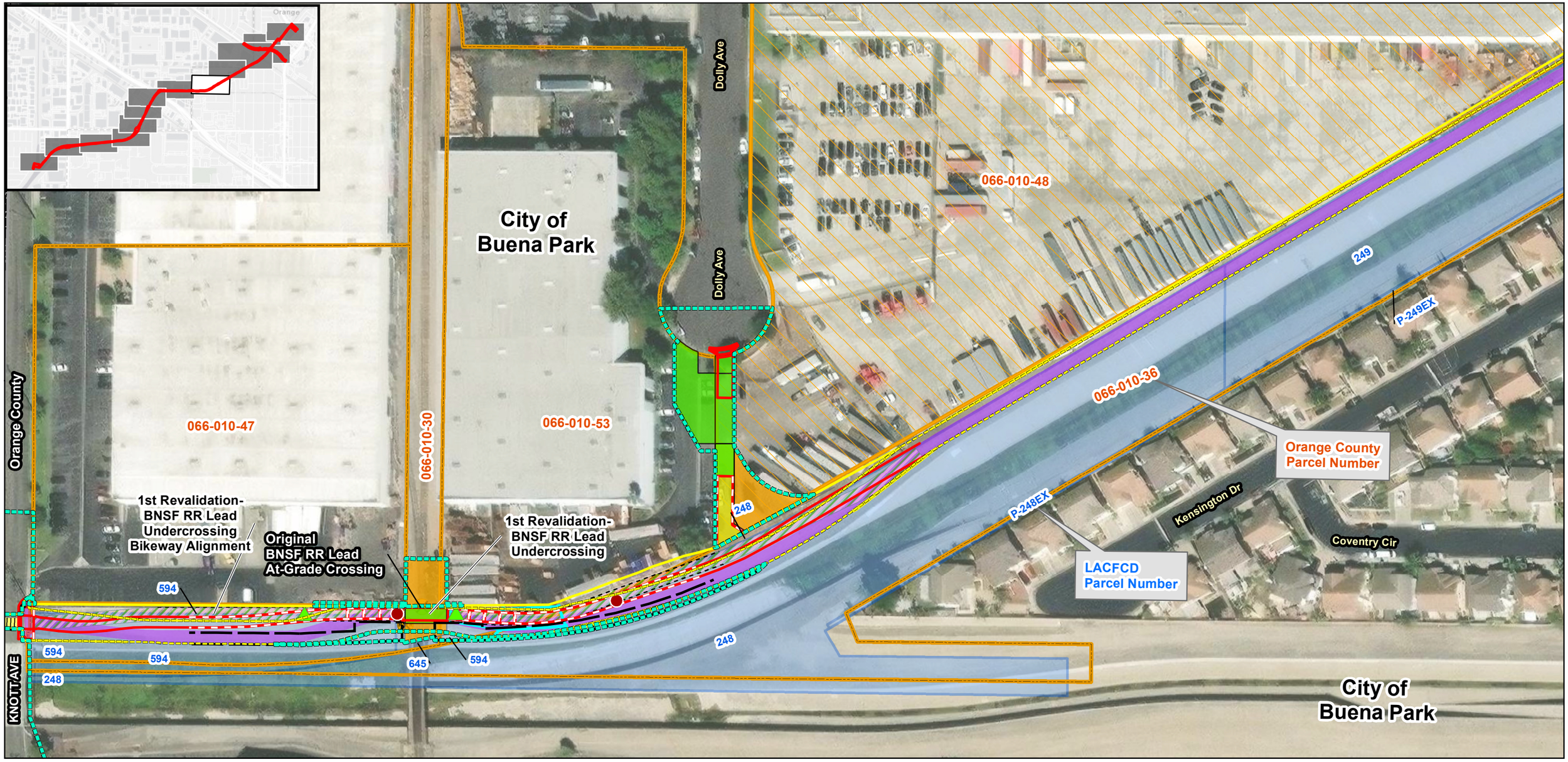
- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Proposed Bikeway Alignment
- NEW Retaining Wall
- NEW Maintenance Road
- NEW Permanent Easement
- Original Segment P Class I Bikeway
- Original Segment Q Class I Bikeway
- 1st Revalidation-BNSF Lead Undercrossing Bikeway
- 1st Revalidation-Road Undercrossing Alignment
- 1st Revalidation-Undercrossing
- 1st Revalidation-Wall
- 1st Revalidation-Potential Driveway
- 1st Revalidation-Easement
- 1st Revalidation-At-grade Crossing
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 8 of 14)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

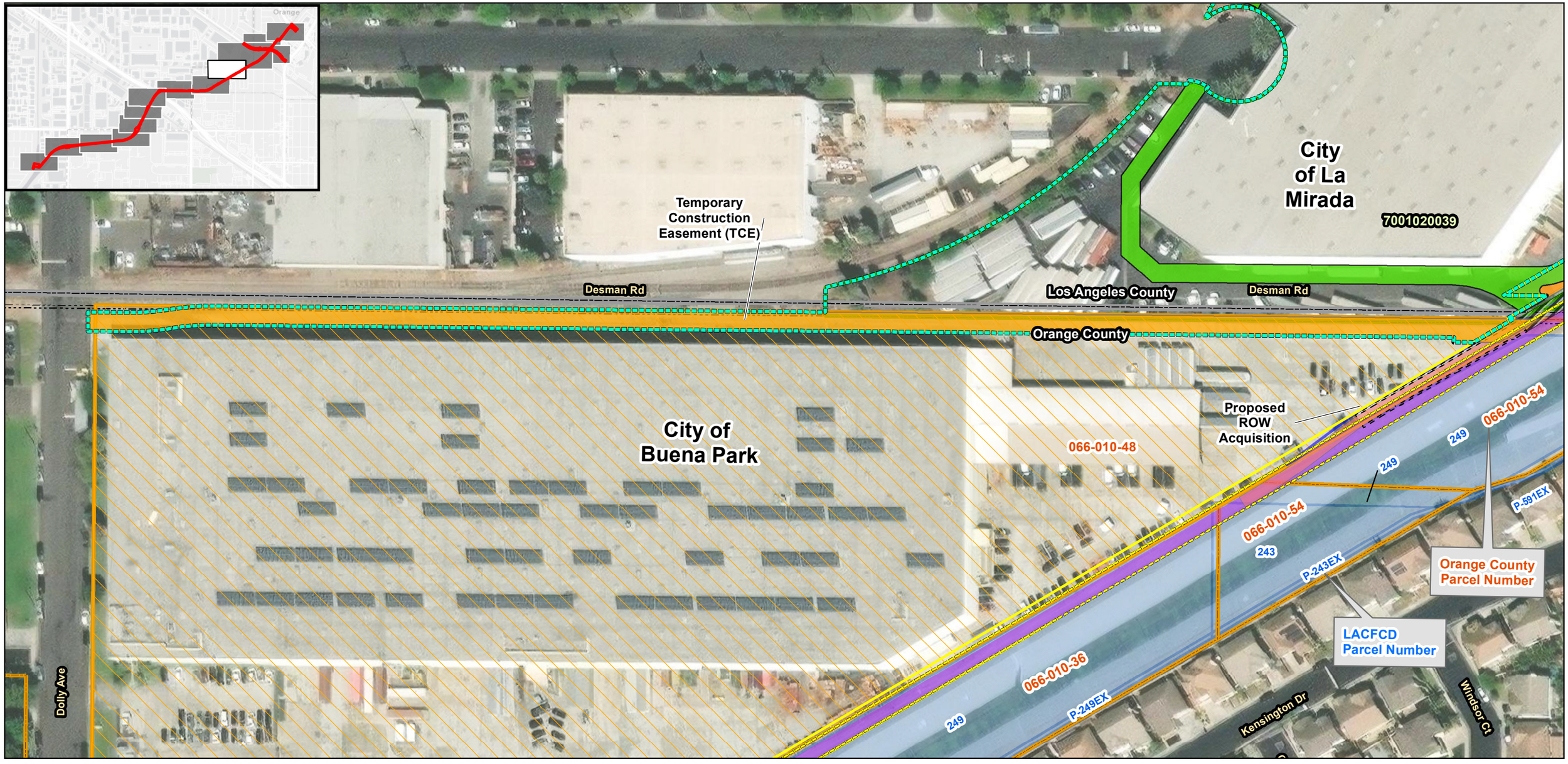
- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Proposed Bikeway Alignment
- NEW Retaining Wall
- NEW Maintenance Road
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding Only
- NEW Proposed Location of Geotechnical Boring Only
- Original Segment Q Class I Bikeway
- 1st Revalidation-BNSF Lead Undercrossing
- 1st Revalidation-BNSF Lead Undercrossing Bikeway
- 1st Revalidation-BNSF Lead Storm Drain and Outfall
- 1st Revalidation-Retaining Wall
- 1st Revalidation-At-grade Crossing
- Railroad Crossing Signal
- Orange County Parcels Subject to Potential Indirect Effects
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Original Segment Q Class I Bikeway
- 1st Revalidation-BNSF/Metrolink Overcrossing Bikeway
- 1st Revalidation-Prefabricated Truss Bridge
- 1st Revalidation-ROW Acquisition
- 1st Revalidation-Temporary Construction Easement (TCE)
- 1st Revalidation-Retaining Wall
- Orange County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems environmental • management • planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,740

N

0 50 100 Feet

0 15 30 Meters

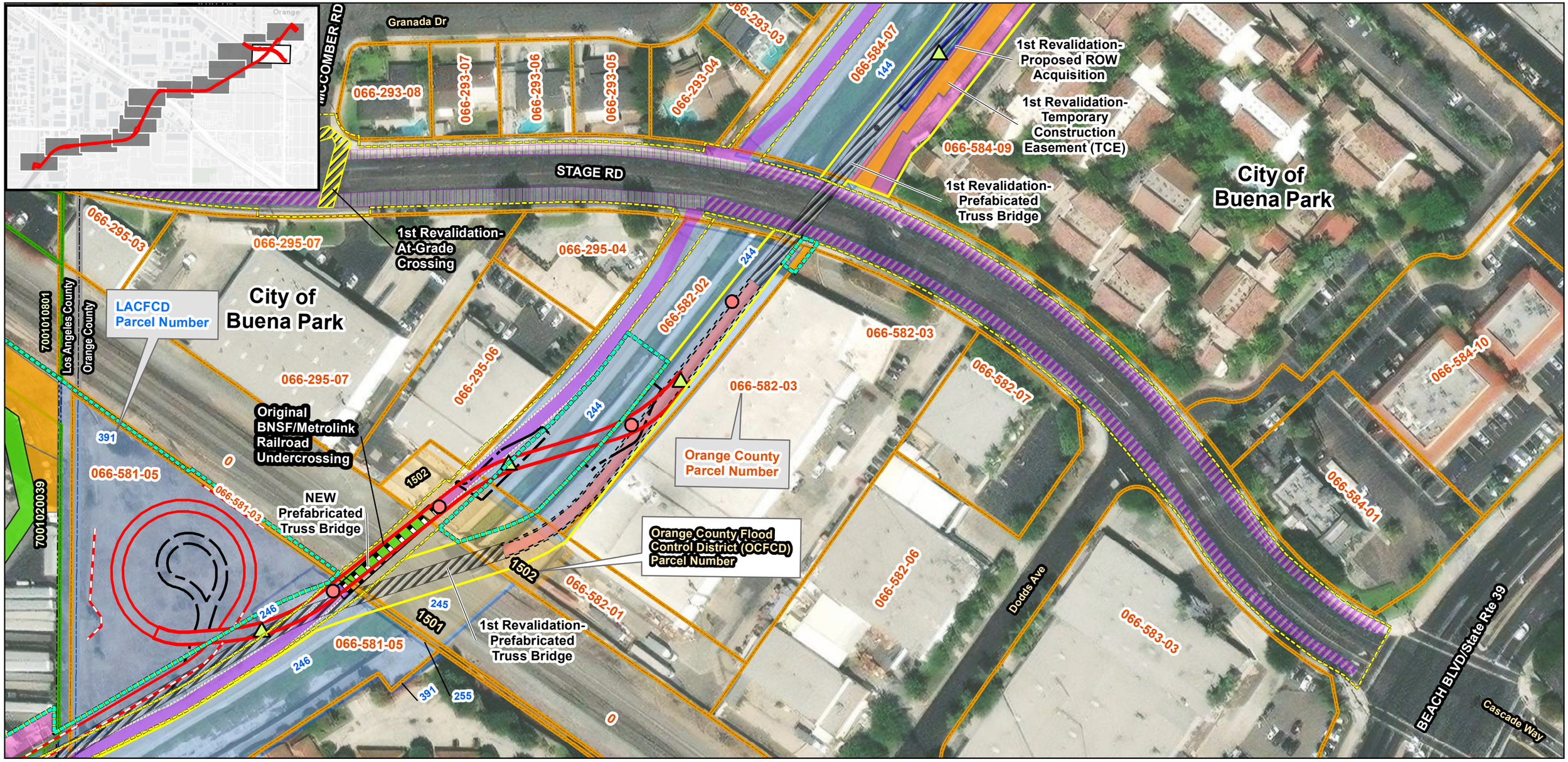
Legend

- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Proposed Bikeway Alignment
- NEW Retaining Wall
- NEW Maintenance Road
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Original Segment Q Class I Bikeway
- Original Segment Q Class II Bikeway
- Original Segment Q Class IV Bikeway with Concrete Barriers
- 1st Revalidation-BNSF/Metrolink Overcrossing Bikeway
- 1st Revalidation-Prefabricated Truss Bridge
- 1st Revalidation-ROW Acquisition
- 1st Revalidation-Temporary Construction Easement (TCE)
- 1st Revalidation-Retaining Wall
- 1st Revalidation-Concrete Column
- 1st Revalidation-Power Pole
- 1st Revalidation-Undercrossing
- 1st Revalidation-Wall
- 1st Revalidation-Road Crossing
- Orange County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- OCFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

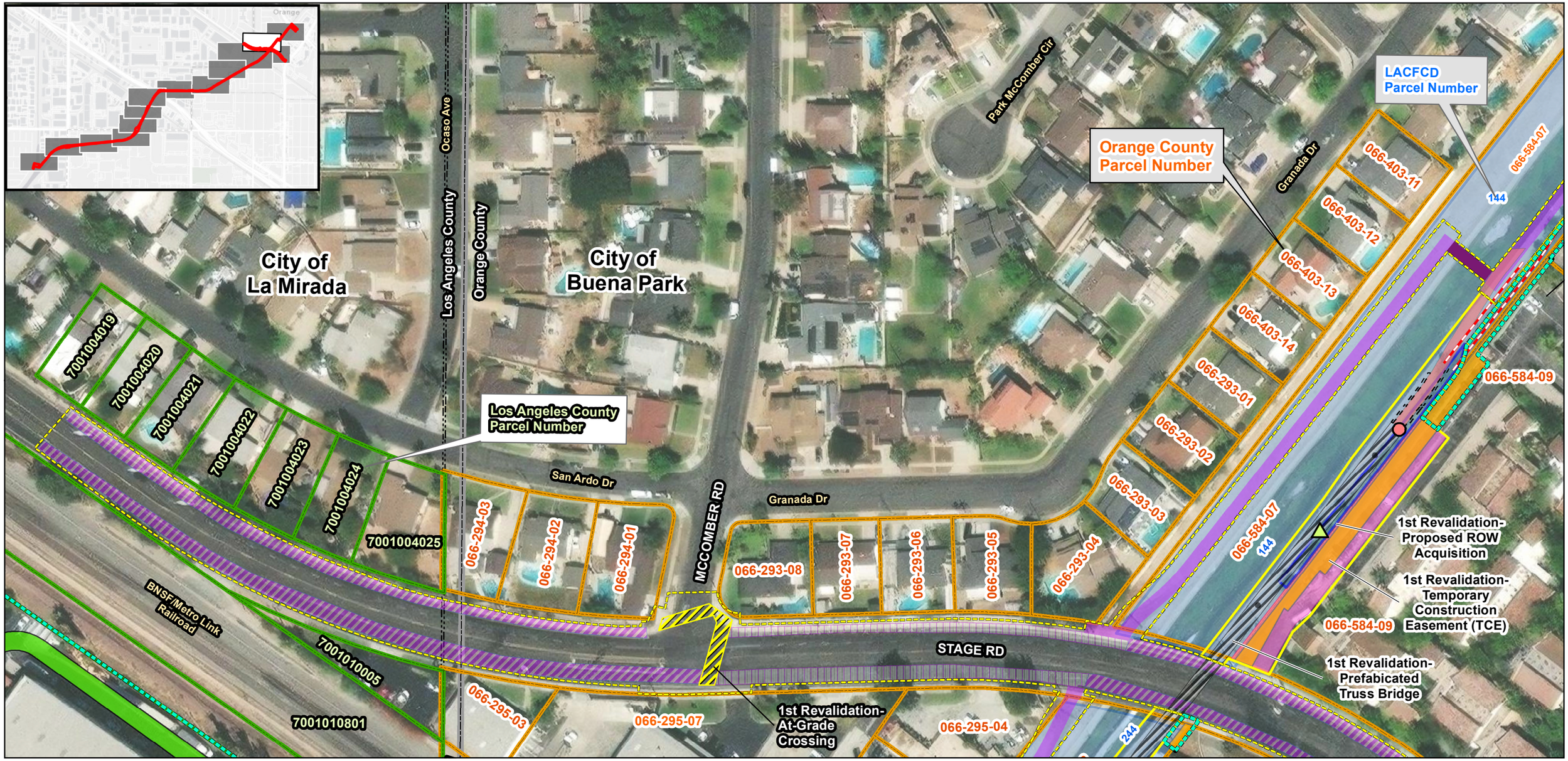
- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Proposed Bikeway Alignment
- NEW Retaining Wall
- NEW Maintenance Road
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Original Segment Q Class I Bikeway
- Original Segment Q Class II Bikeway
- Original Segment Q Class IV Bikeway with Concrete Barriers
- 1st Revalidation-BNSF/Metrolink Overcrossing Bikeway
- 1st Revalidation-Prefabricated Truss Bridge
- 1st Revalidation-ROW Acquisition
- 1st Revalidation-Temporary Construction Easement (TCE)
- 1st Revalidation-Retaining Wall
- 1st Revalidation-Concrete Column
- 1st Revalidation-Undercrossing
- 1st Revalidation-Wall
- 1st Revalidation-Road Crossing
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- OCFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 12 of 14)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Retaining Wall
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Original Segment Q Class I Bikeway
- Original Segment Q Class II Bikeway
- Original Segment Q Class IV Bikeway with Concrete Barriers
- 1st Revalidation-BNSF/Metrolink Overcrossing Bikeway
- 1st Revalidation-Prefabricated Truss Bridge
- 1st Revalidation-ROW Acquisition
- 1st Revalidation-Temporary Construction Easement (TCE)
- 1st Revalidation-Retaining Wall
- 1st Revalidation-Concrete Column
- 1st Revalidation-Road Crossing
- Original Prefabricated Truss Bridge
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Additional_APE_2023_06_26.mxd
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018 and June 2023; GHD August 2021; UltraSystems Environmental, Inc. 2023

June 26, 2023

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

- NEW Additional Area of Potential Effects (APE)
- 1st Revalidation Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- NEW Retaining Wall
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Original Segment Q Class I Bikeway
- 1st Revalidation-BNSF/Metrolink Overcrossing Bikeway
- Tree to be removed
- Original Prefabricated Truss Bridge
- 1st Revalidation-Easement
- Orange County Parcels
- LACFCD ROW
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental • management • planning

ATTACHMENT B
PREVIOUS HPSRS AND
ASSOCIATED DOCUMENTS

OC LOOP SEGMENTS O, P, AND Q COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works

ATTACHMENT B, PART 1 OF 5

ORIGINAL HPSR

(December 10, 2020)

DEPARTMENT OF TRANSPORTATION
District 12
1750 East Fourth St., Suite 100
Santa Ana, CA 92705
PHONE (657) 328-6139

December 10, 2020

Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

File: 12-ORA-Local Assistance
EFIS 1214903124
ATPL 5955(112)

Re: Determination of Eligibility and Finding of No Historic Properties Affected for Local Assistance OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, in Orange County, California, Historic Property Survey Report (HPSR); EFIS 1214903124 Federal ID# ATPL 5595(112).

Dear Ms. Polanco:

The California Department of Transportation (Caltrans) is initiating consultation with the State Historic Preservation Officer (SHPO) regarding the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, Orange County, California. This consultation is undertaken in accordance with the First Amended January 2014 Section 106 *Programmatic Agreement among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation* (PA). We are consulting with you at the present time under Stipulation VIII.C.6 of the PA, which requires that we seek your concurrence on Caltrans' determinations of eligibility for potential historic properties.

Enclosed you will find a Historic Property Survey Report (HPSR) for the proposed undertaking including an Archaeological Survey Report (ASR), Historical Resources Evaluation Report (HRER), and Department of Parks and Recreation (DPR) Forms. The HPSR fulfills three responsibilities under Section 106 of the National Historic Preservation Act: (1) determination of the Area of Potential Effects (APE); (2) identification of cultural resources located within the APE; and (3) evaluation of historic properties for eligibility to the National Register of Historic Places (NRHP). Under the PA, Caltrans is responsible for ensuring the appropriateness of the APE (PA Stipulation VIII.A) and the adequacy of historic property identification efforts (PA Stipulation VIII.B). At this time, under PA Stipulation VIII.C.6, we seek your concurrence on Caltrans' determinations of eligibility for potential historic properties.

Initial consultation and identification efforts for the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project HPSR (2020) resulted in the identification of two previously recorded built environment resources (P-19-186110/30-176630 former Southern Pacific (now Union Pacific) Railroad (see

Attachment A, Map 3:6) and P-19-186804/30-176663) former Atchison, Topeka and Santa Fe (now Burlington Northern Santa Fe) Railway (see Attachment A, Maps 3:8 and 3:10) within the APE, which were formally evaluated for NRHP eligibility in accordance with 36 CFR 800.4(c)(1) as a result of this undertaking.

Further, as a result of the current undertaking, one additional built environment resource was recorded within the APE; the Coyote Creek concrete-line channel. The concrete-line channel along Coyote Creek represents the results of flood-control work undertaken by the U.S. Army Corps of Engineers during the post-WWII period. Channelization of the segment of East Fork along the current project alignment began between 1954 and 1963, but the final completion of the channel in its current configuration dates to 1966-1967. In light of its late-historic-period origin, the segment of the channel was recorded into the California Historical Resources Inventory during this study. However, it was determined not to be eligible for listing in the NRHP due to the lack of important historical association, special merits in design or construction, and archaeological data potential. As such this resource was evaluated using the National Register of Historic Places (NRHP) eligibility criteria following the guidance outlined in Stipulation VIII.B of the 106 PA and determined ineligible pursuant to Stipulation VIII.C.2. This resource has also been evaluated for the California Register of Historical Resources (CRHR) and determined it is a historical resource as outlined in CEQA Guidelines 15064.5(a).

Pursuant to Stipulation VIII.C.6, Caltrans is requesting your concurrence with the following determination:

Not Eligible for the NRHP

- 19-186110/30-176630 Former Southern Pacific (now Union Pacific) Railroad (see Attachment A, Map 3:6)
- 19-186804/30-176663 Former Atchison, Topeka and Santa Fe (now Burlington Northern Santa Fe) Railway (see Attachment A, Maps 3:8 and 3:10)
- (Number pending) Coyote Creek (East Fork) Channel (throughout the APE)

The California Department of Transportation (Caltrans) is transmitting this Historic Property Survey Report as the NEPA lead agency under the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program* that became effective on July 1, 2007.

Caltrans is initiating consultation as part of its NEPA assignment of federal responsibilities by the Federal Highway Administration (FHWA), effective October 1, 2012 and pursuant to 23 USC 326.

Therefore, as a project covered under the Pilot Program MOU, FHWA has assigned and Caltrans has assumed FHWA responsibility for environmental review, consultation, and coordination for this project. Please direct all future correspondence on this project to Caltrans.

We are kindly requesting a response within 30 days of your receipt of this submittal, in accordance with Stipulation VIII.C.6(a) of the PA. This letter also serves as notification that Caltrans' finding for the undertaking (pursuant to Stipulation IX.A.2) is "No Historic Properties Affected" due to the absence of identified historic properties within the undertaking's APE.

If you need any additional information, please do not hesitate to contact Caltrans Archaeologist Jonathan Wright (phone: 657-328-6167 or e-mail: jonathan.wright@dot.ca.gov). Once again, thank you for your assistance with this project.

Sincerely,

Charles Baker

Charles Baker, Environmental Analysis - Specialist Branch Chief
California Department of Transportation, District 12, Santa Ana
657-328-6139

Attachment: *December 2020 Historic Property Survey Report (HPSR) for the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project (EFIS 1214903124; Fed ID # 5955(112))*

c: David Price, HQ/CSO Section 106 Coordinator

HISTORIC PROPERTY SURVEY REPORT

1. UNDERTAKING DESCRIPTION AND LOCATION

District	*County*	*Federal Project. Number. (Prefix, Agency Code, Project No.)*	*Location*
12	OC/LA	ATPL 5955(112)	Cities of Cerritos, La Mirada, and Buena Park

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans. The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA).

Project Description:

The Orange County Department of Public Works, in cooperation with the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans), proposes an undertaking known as the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project in the Cities of Cerritos, La Mirada, and Buena Park, generally along the boundary between Los Angeles and Orange Counties, and within Caltrans District 12 (Federal Aid Project No. ATPL-5955(112); see Attachment A). The undertaking entails primarily the construction of 2.7 miles of 10- to 16-foot-wide Class 1 bike path on the basis of existing service roads along the Coyote Creek (East Fork) Channel, within the Orange County and Los Angeles County Flood Control Districts right-of-way, to close a gap in the OC Loop, a 66-mile regional bikeway corridor. The new bike path will connect to previously completed OC Loop segments at the confluence between East Fork and North Fork of Coyote Creek in the City of Cerritos and at the intersection of the channel with La Mirada Boulevard in the City of Buena Park.

The project route crosses a total of 13 existing bridges on ten public roadways and three railroad lines, where the current project plans call for the construction of seven underpasses, five at-grade crossings, and one overpass across the Union Pacific Railroad. Temporary and permanent easements will be required from private properties and public rights-of-way along the route to accommodate the at-grade crossings, staging/storage areas, construction access, and borrow/ disposal sites. At the northern end of the undertaking, roughly 20 sidewalk trees along La Mirada Boulevard will be removed to provide access to an at-grade crossing some 300 feet east of the Coyote Creek (East Fork) Channel.

The maximum depth of ground disturbance will be limited to two feet below the ground surface at most locations but may reach as much as 18.5 feet where major construction activities will occur, such as installation of concrete box underpasses and anchoring the overpass. Other than the overpass, project activities above the ground will be limited to establishment of standard signage, fencing, and the relocation of a power pole near the South Firestone Boulevard crossing. (See Attachment A for project maps and Attachments C, D for further details)

2. AREA OF POTENTIAL EFFECTS

In accordance with Section 106 PA Stipulation VIII.A, the Area of Potential Effects (APE) for the project was established in consultation with Jonathan M. Wright, Caltrans PQS, and Tifini Tran, District 12 Local Assistance Engineer, on November 16, 2020. The APE maps are located in Attachment A.

 Copyright © 2020 State of California. All rights reserved.
***Alteration to the title and section headings is prohibited**.*

The APE was delineated to encompass the maximum extent of all ground disturbances required by the project design, including staging/storage areas, access routes, borrow/disposal sites, and at-grade crossings outside the flood control right-of-way. Also included in the APE are two privately owned parcels (7003-011-036 and 7003-011-813) adjacent to the proposed overpass across the Union Pacific Railroad, where a late-historic-period building may receive visual, atmospheric, or other indirect effects from the construction of the high-profile bridge. No additional APE was deemed necessary along La Mirada Boulevard because field inspections indicate that the proposed tree removal has little potential for indirect effects on nearby buildings that may be of historical origin due to their distances and orientations.

The APE consists of a total of 26.17 acres, of which 12.88 acres comprise the Area of Direct Impact (ADI). The primary component of the ADI is the right-of-way for the bike path, which runs approximately 2.7 miles in total length and measures 10 to 16 feet in width. The entire APE lies in a fully urbanized setting in the Cities of Cerritos and La Mirada in Los Angeles County and the City of Buena Park in Orange County, across a portion of the Los Coyotes land grant in what would be Sections 26, 27, 33, and 34, Township 3 South Range 11 West, San Bernardino Baseline and Meridian (see Attachment A). The vertical extent of the APE below surface will range between two feet and 18.5 feet in depth, as discussed above.

3. CONSULTING PARTIES / PUBLIC PARTICIPATION

☒ Local Government

The following local government officials were contacted by e-mail on April 21, 2020, and by telephone on April 21, July 13, and October 15 (see Attachment F):

- Brady Woods, Supervisor of Planning Division, Community Development Department, City of Buena Park. No response to date.
- Mike O'Grady, Environmental Services Manager, Community Development Department, City of Cerritos. No response to date.
- Gabriel Bautista, Director, Community Development Department, City of La Mirada. When reached by telephone on October 15, Mr. Bautista stated that the City had no objections to the project but that he would review the project information and respond further by e-mail if he had any additional comments. No further correspondence has been received to date.

☒ Native American Heritage Commission (NAHC)

A written request was submitted on January 28, 2020, to the commission for a records search in the Sacred Lands File. In response, the NAHC states in a letter dated February 11, 2020, that the Sacred Lands File identified no Native American cultural resources in the APE but recommended contacting local Native American groups for additional information (see Attachment E).

☒ Native American Tribes, Groups and Individuals

Five tribal representatives were contacted in writing and by telephone between February 17 and July 21, 2020 (see Attachment E):

- Charles Alvarez, Gabrielino-Tongva Tribe. No response to date.
- Robert Dorame, Chairperson, Gabrielino Tongva Indians of California Tribal Council. Chairperson Dorame stated via telephone on April 2, 2002, that if no further response was received from him it would mean that he had no concerns with this undertaking. No further correspondence has been received since then.

 Copyright © 2020 State of California. All rights reserved.
***Alteration to the title and section headings is prohibited**.*

- Sandonne Goad, Chairperson, Gabrielino/Tongva Nation. No response to date.
- Anthony Morales, Chairperson, Gabrieleno/Tongva San Gabriel Band of Mission Indians. No response to date.
- Andrew Salas, Chairperson, Gabrieleño Band of Mission Indians-Kizh Nation. The tribe's Administrative Specialist responded to Caltrans by e-mail on July 30, 2020, expressing interest in consulting on this undertaking. Caltrans replied on October 5 to request a meeting date. There has been no further response as of October 26, and Caltrans concluded the consultation.

☒ Local Historical Society / Historic Preservation Group

The following local historical societies were contacted by e-mail on April 21, 2020, and by telephone on April 21, July 13, and October 15 (see Attachment F):

- Orange County Historical Society/Heritage Museum of Orange County. On October 15, Executive Director Jamie Hiber replied by e-mail and stated that she would discuss with society members and respond further later. No further response has been received since then.
- Buena Park Historical Society. No response to date.
- La Mirada Community Foundation/Discover La Mirada. On April 21, 2020, Latecia Ravilla, Liaison for the Foundation, requested the project information to be re-sent to her by e-mail, which was done immediately after the telephone call. No further response has been received since then.

4. SUMMARY OF IDENTIFICATION EFFORTS

☒ National Register of Historic Places (NRHP)
☒ California Register of Historical Resources (CRHR)
☒ National Historic Landmark (NHL)
☒ California Historical Landmarks (CHL)
☒ California Points of Historical Interest
☒ California Historical Resources Information System (CHRIS)
☒ Caltrans Historic Bridge Inventory

☒ Other Sources consulted:

- Published literature in local/regional history and geology
- U.S. Geological Survey topographic maps and geological maps (1896-2016)
- Aerial photographs of the project vicinity (1952-2020)
- Archival records of the County of Los Angeles, the City of La Mirada, and the U.S. Army Corps of Engineers

☒ Results:

- CHRIS records indicate 20 previous cultural resources studies within a half-mile radius, ten of them intersecting the APE. Two linear transportation features from the historic period, the Southern Pacific (now Union Pacific) Railroad and the Atchison, Topeka and Santa Fe (now Burlington Northern Santa Fe) Railway, were previously recorded across the APE and were designated Sites 19-186110/30-176630 and 19-186804/30-176663 in the California Historical Resources Inventory, respectively. A third rail line across the APE, a Santa Fe spur built between 1963 and 1965, is considered a component of Site 19-186804/30-176663 for the purpose of this study. Despite the important roles that these early railroads played in local, regional, and California history during the late 19th and early 20th centuries, the portions of both

 Copyright © 2020 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

sites in and near the APE are found to be ineligible for listing in the NRHP due to the loss of historic integrity. (See Attachment D)

- Two additional sites, 19-187549 and 30-120020, were previously recorded within the half-mile scope of the records search, representing the KFI radio station transmitter building (circa 1931) and a refuse deposit associated with the former Northam railway station. These two sites, located 375 feet and 1,050 feet from the APE, require no further consideration during this study. (See Attachments C, D)
- Ten highway bridges lie across the APE, carrying the following public roadways over the Coyote Creek (East Fork) Channel (from southwest to northeast): Valley View Avenue (southbound), Valley View Avenue (northbound), Artesia Boulevard, South Firestone Boulevard, Interstate Highway 5, North Firestone Boulevard, Trojan Way, Knott Avenue, Stage Road, and La Mirada Boulevard. All of these bridges are listed in the Caltrans Historic Bridge Inventory as Category 5 (not eligible for NRHP). (See Attachment B)
- The concrete-line channel along Coyote Creek represents the results of flood-control work undertaken by the U.S. Army Corps of Engineers during the post-WWII period. Channelization of the segment of East Fork along the current project alignment began between 1954 and 1963, but the final completion of the channel in its current configuration dates to 1966-1967. In light of its late-historic-period origin, the segment of the channel was recorded into the California Historical Resources Inventory during this study. However, it was determined not to be eligible for listing in the NRHP due to the lack of important historical association, special merits in design or construction, and archaeological data potential. (See Attachment D)
- The only building more than 50 years of age in the APE, an industrial/commercial building at 14701-14765 Industry Circle in the City of La Mirada, was constructed in three stages in 1964, 1967-1970, and 1999, and the primary façade of the building was evidently remodeled at the time of the last addition. As a result, the appearance of the building is mostly modern in character. Because of the substantial additions and prominent alterations in 1999, the building is determined to be exempt from further study and formal evaluation pursuant to Section 106 PA Attachment 4 (Property Type 3: buildings, structures, objects, districts, and sites so altered as to appear less than 30 years old). (See Attachment D)
- Geoarchaeological analysis of the APE finds its location in a major drainage that was known historically for periodic flooding to be unfavorable for long-term habitation by the aboriginal population in prehistoric times, nor is this environment conducive to the preservation of archaeological remains. Furthermore, virtually the entire APE has been extensively disturbed as a result of the channelization of the creek, construction of various existing roads, and other developments nearby. Therefore, the subsurface sediments in the APE appear to be relatively low in sensitivity for intact, potentially significant archaeological remains of prehistoric or early historical origin. (See Attachment C)

5. PROPERTIES IDENTIFIED

☒ Bai "Tom" Tang, who meets the Professionally Qualified Staff (PQS) Standards in Section 106 PA Attachment 1 and as applicable PRC 5024 MOU Attachment 1 as a Principal

 Copyright © 2020 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

Architectural Historian, has determined that the only other properties present within the APE meet the criteria for Section 106 PA Attachment 4 (**Properties Exempt from Evaluation**).

- Industrial/commercial building at 14701-14765 Industry Circle, City of La Mirada (Property Type 3; see Attachment A, Maps 3:4-6)

☒ Bridges listed as **Category 5** (previously determined not eligible for listing in the NRHP) in the Caltrans Historic Bridge Inventory are present within the APE and those determinations remain valid. Appropriate pages from the Caltrans Historic Bridge Inventory are attached.

- 53 0279 Interstate Highway 5 over Coyote Creek (see Attachment A, Map 3:6-7)
- 53C0149 S. Firestone Boulevard over Coyote Creek (see Attachment A, Map 3:6)
- 53C0150 N. Firestone Boulevard over Coyote Creek (see Attachment A, Maps 3:6-7)
- 53C0410 Artesia Boulevard over Coyote Creek (see Attachment A, Map 3:4)
- 53C0815 Valley View Avenue (southbound) over Coyote Creek (see Attachment A, Map 3:2)
- 53C1491 Trojan Way over Coyote Creek (see Attachment A, Map 3:7)
- 53C1515 Knott Avenue over Coyote Creek (see Attachment A, Maps 3:7-8)
- 55C0039R Valley View Avenue (northbound) over Coyote Creek (see Attachment A, Map 3:2)
- 55C0071 Stage Road over Coyote Creek (see Attachment A, Maps 3:10-11)
- 55C0198 La Mirada Boulevard over Coyote Creek (see Attachment A, Map 3:12)

☒ Caltrans has determined there are cultural resources within the APE that were evaluated as a result of this project and are **not eligible** for inclusion in the NRHP. Under Section 106 PA Stipulation VIII.C.6, Caltrans requests SHPO's concurrence in this determination.

- 19-186110/30-176630 Former Southern Pacific (now Union Pacific) Railroad (see Attachment A, Map 3:6)
- 19-186804/30-176663 Former Atchison, Topeka and Santa Fe (now Burlington Northern Santa Fe) Railway (see Attachment A, Maps 3:8 and 3:10)
- (Number pending) Coyote Creek (East Fork) Channel (throughout the APE)

6. FINDING FOR THE UNDERTAKING

☒ Caltrans, pursuant to Section 106 PA Stipulation IX.A, has determined a Finding of **No Historic Properties Affected** is appropriate for this undertaking because there are no historic properties within the APE.

7. CEQA CONSIDERATIONS

☒ Not applicable; **Caltrans is not the lead agency under CEQA**.

8. LIST OF ATTACHED DOCUMENTATION

☒ Project Vicinity, Location, and APE Maps

- Attachment A

☒ Caltrans Historic Bridge Inventory Sheet

- Attachment B

Copyright © 2020 State of California. All rights reserved.
***Alteration to the title and section headings is prohibited**.*

☒ Historical Resources Evaluation Report (HRER)

- Bai Tang and Terri Jacquemain: Historical Resources Evaluation Report, OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, California (Attachment D)

☒ Archaeological Survey Report (ASR)

- Stephen O'Neil: Archaeological Survey Report, OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, Orange County Department of Public Works, Orange County, California (Attachment C)

☒ Other

- Correspondence with Native American and local community representatives (Attachments E, F)

9. HPSR PREPARATION AND CALTRANS APPROVAL

Prepared by: _____ November 18, 2020
Bai "Tom" Tang, Principal Investigator, History/Architectural History — Date
CRM TECH, 1016 E. Cooley Drive, Suite A/B, Colton, CA 92324

Reviewed for Approval by: _____ December 9, 1020
District HQ Caltrans PQS: Janice Calpo Principal Architectural Historian — Date

Approved by: Charles Baker 12/10/2020
District 12 EBC Charles Baker, Senior Environmental Planner — Date

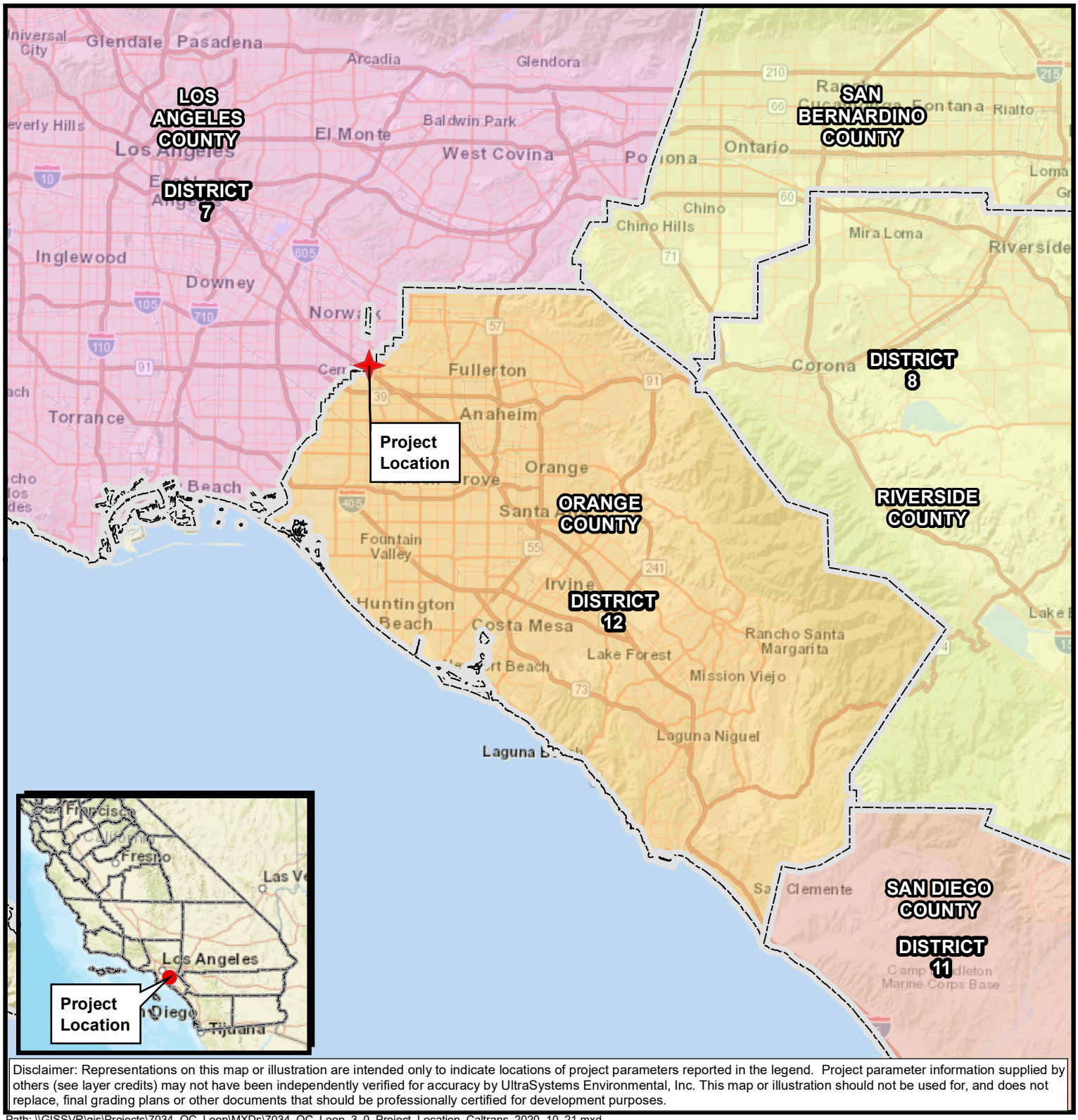
Copyright © 2020 State of California. All rights reserved.
Alteration to the title and section headings is prohibited.

ATTACHMENT A
PROJECT MAPS

OC LOOP SEGMENTS O, P, AND Q
COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_3_0_Project_Location_Caltrans_2020_10_21.mxd

October 21, 2020

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community; California Department of Forestry and Fire Protection, May 2009; UltraSystems Environmental, Inc., 2020.

Scale: 1:506,880

N

0 4 8 Miles

0 4.5 9 Kilometers

Legend

Project Location

County Boundary

Caltrans District

7

8

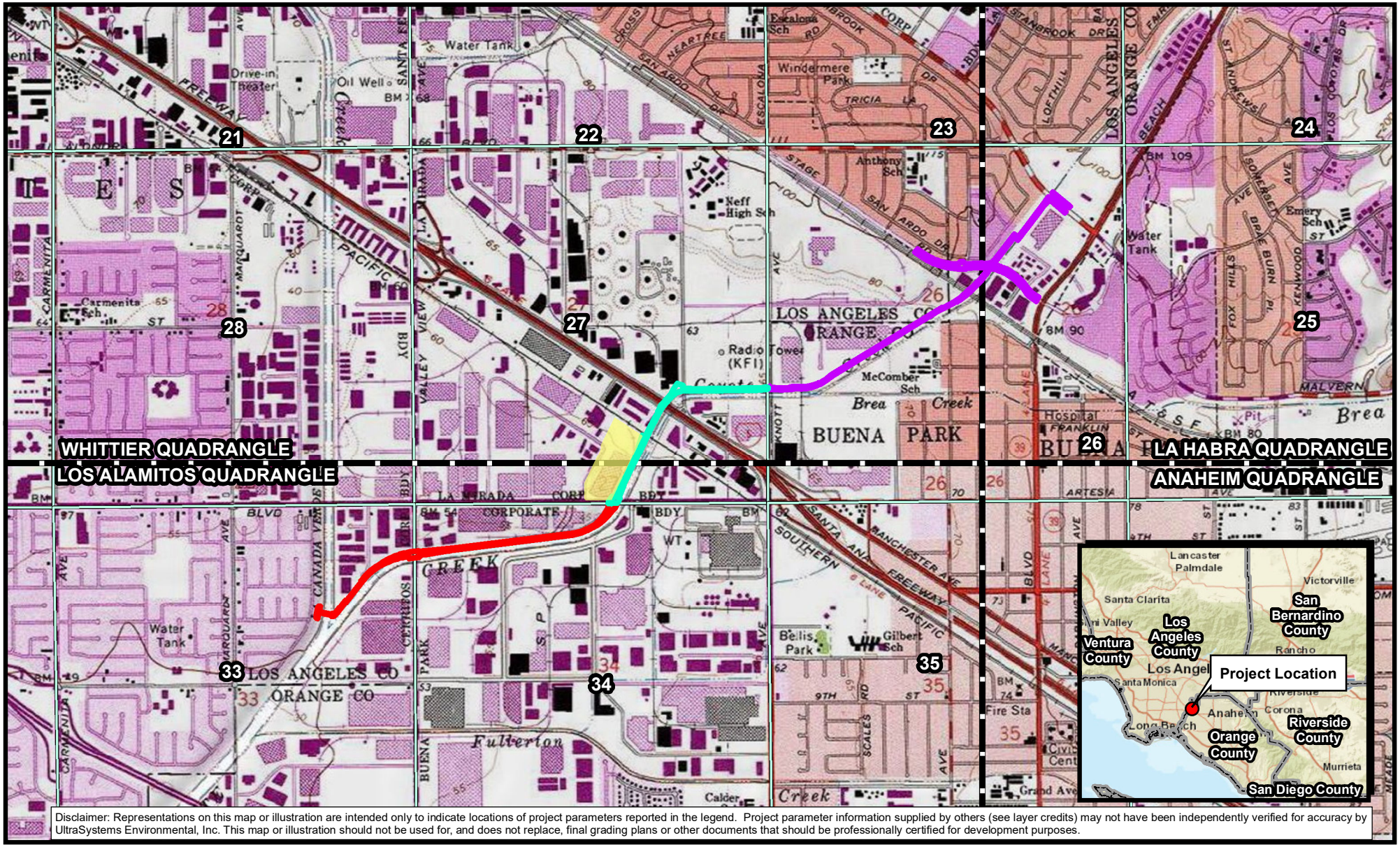
11

12

OC Loop
Segments O, P, and Q
Coyote Creek Bikeway Project

Map 1. Project Vicinity

UltraSystems
environmental • management • planning



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Cul_Topo_2020_10_22.mxd

October 22, 2020

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community,
Copyright:© 2013 National Geographic Society, i-cubed; CA Dept. of Conservation, 2011; UltraSystems Environmental, Inc., 2020

N

Scale: 1:24,000

0 1,000 2,000 Feet

0 250 500 Meters

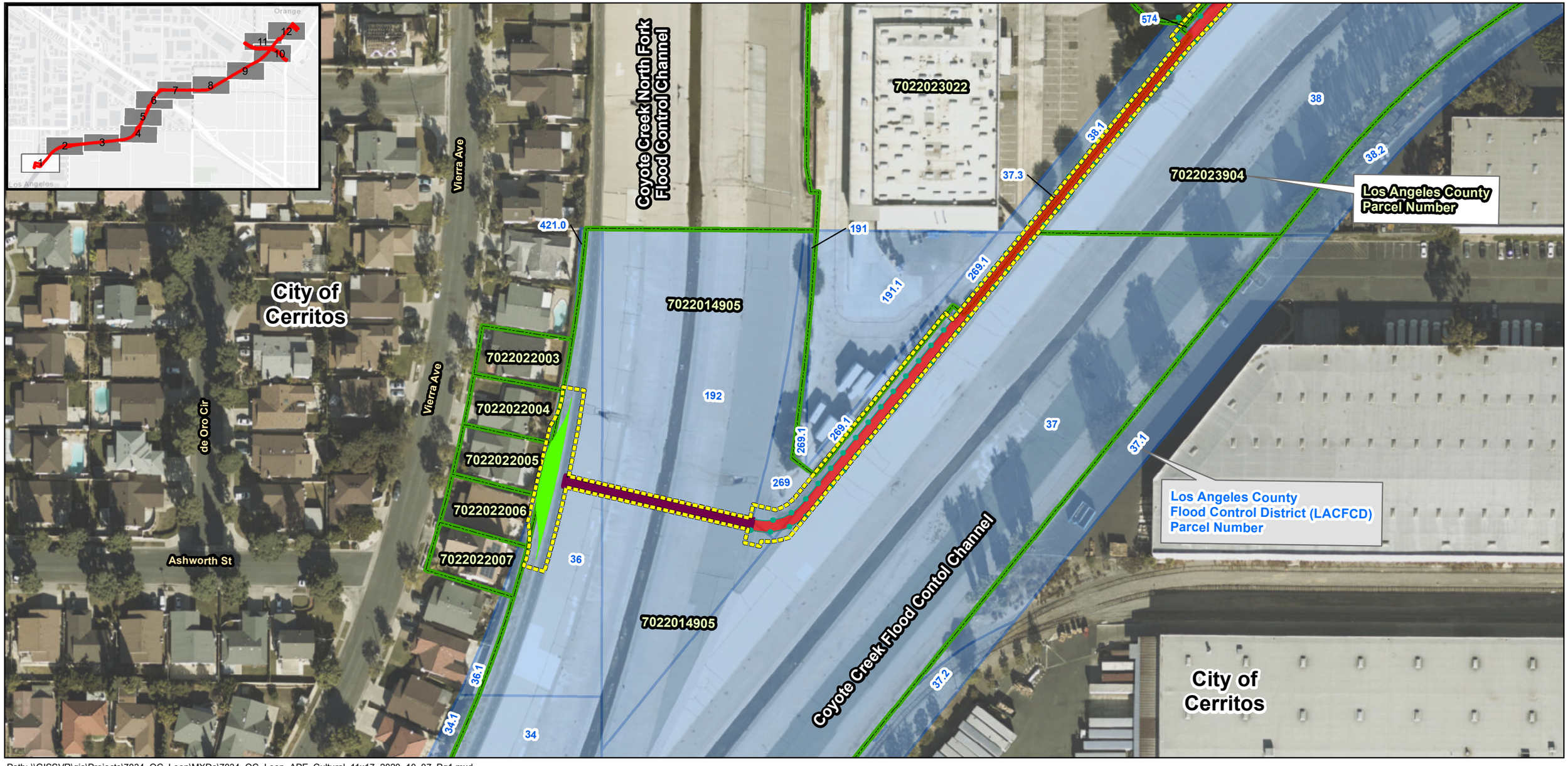
Legend

- Segment O
- Segment P
- Segment Q
- Quadrangle Boundary
- Section Boundary
- Los Angeles County Parcels Subject to Potential Indirect Effects

OC Loop Segments O, P, and Q
Coyote Creek Bikeway Project

Map 2. Project Location
USGS Quadrangle: La Habra, Los Alamitos, Whittier
Township: 3S Range: 11W
Sections 26, 27, 33, 34

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07_Pg1.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Legend

- Segment O Class I Bikeway
- Area of Potential Effect (APE)
- Optional Fence
- Prefabricated Truss Bridge
- Re-align Existing Bike Path
- Los Angeles County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Caltrans District 12
APPROVALS

Signature: Tifini Tran
Caltrans District 12 Local Assistance Engineer

Date

Signature: Jonathan M.Wright
Caltrans Professionally Qualified Staff

Date

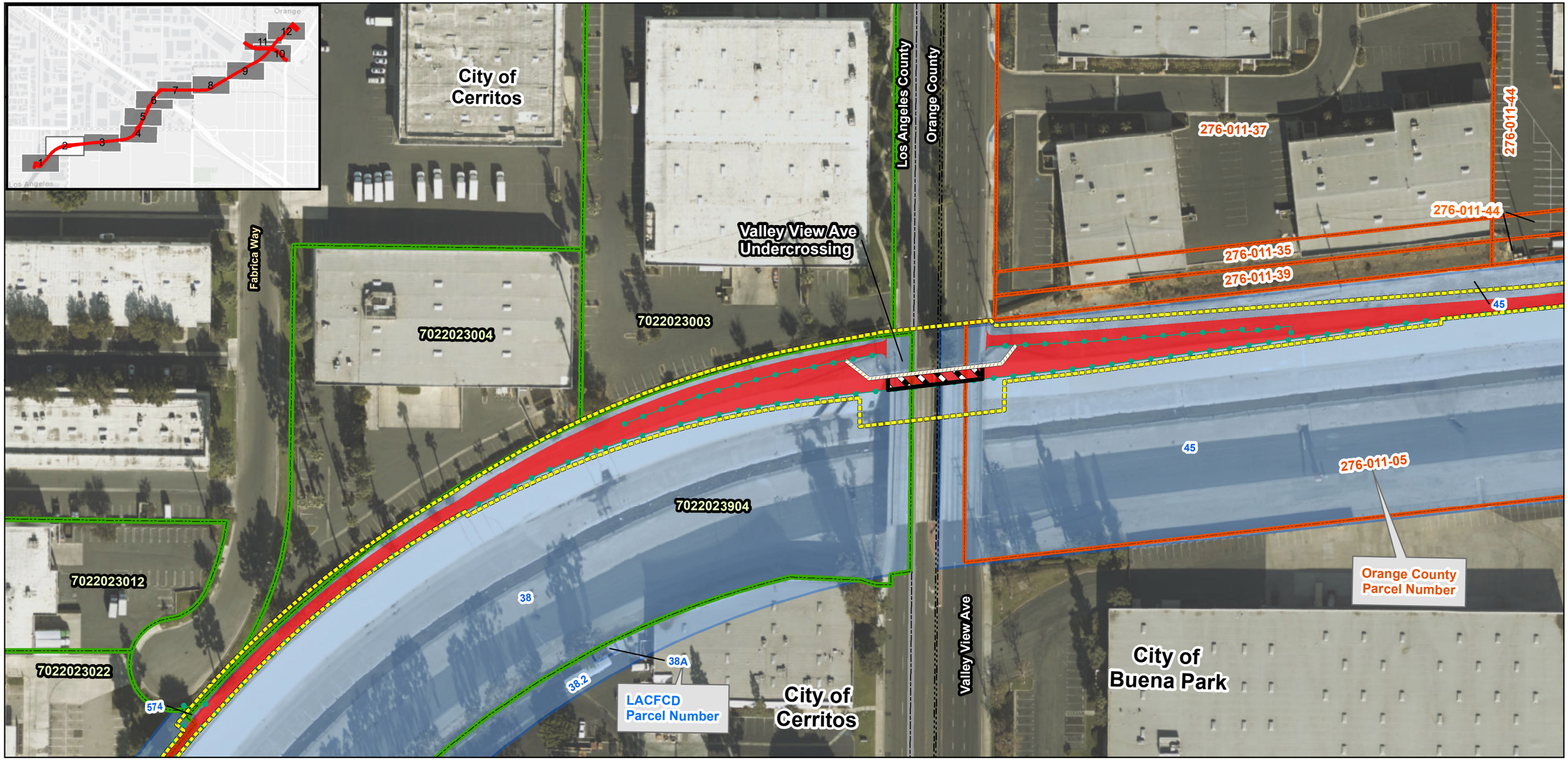
OC Loop
Segments O, P, and Q

Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 1 of 12)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment O Class I Bikeway
- Area of Potential Effect (APE)
- Proposed Undercrossing
- Optional Fence
- Wall
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

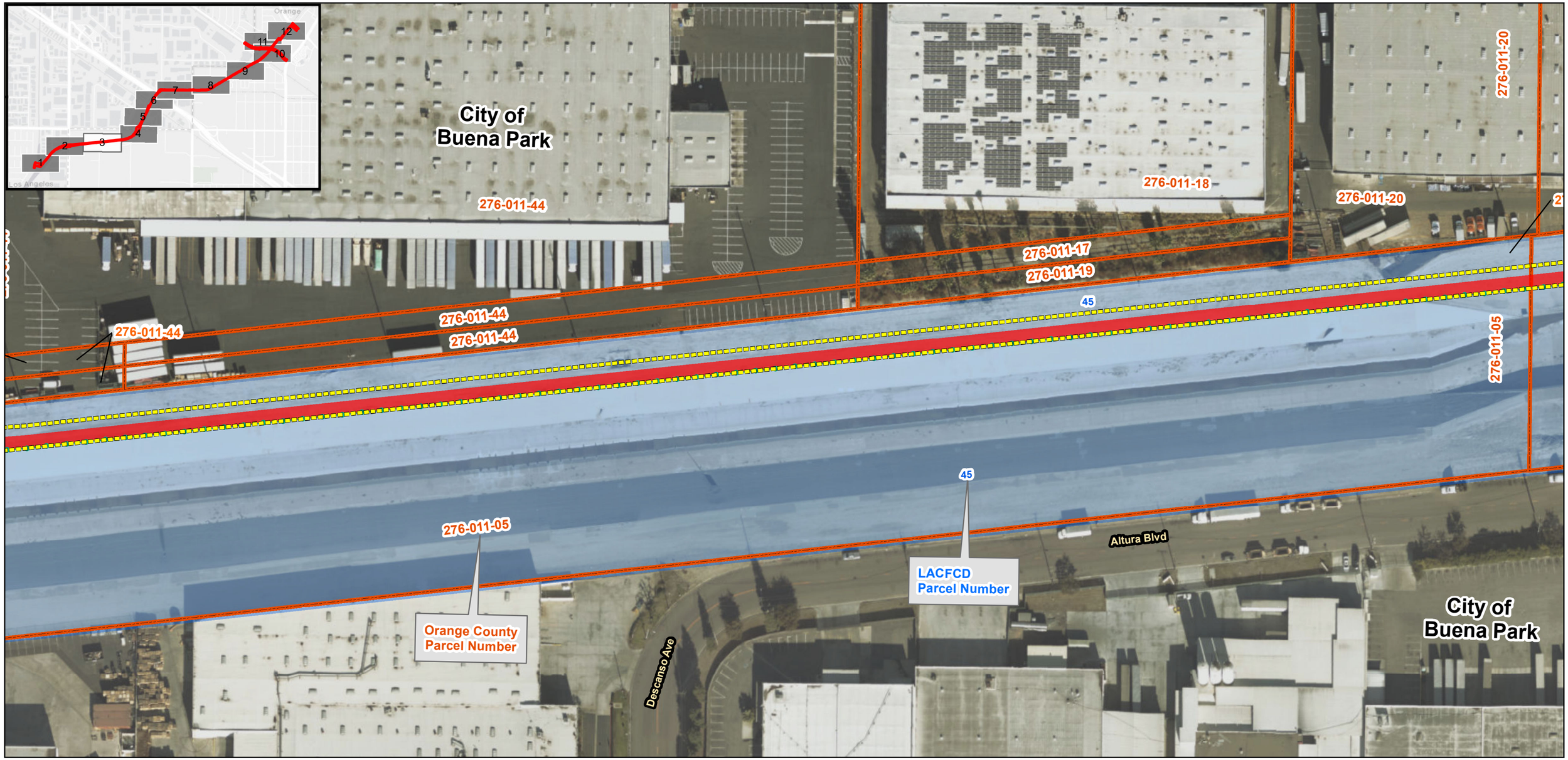
OC Loop
Segments O, P, and Q

Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 2 of 12)

UltraSystems
environmental•management•planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,220

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment O Class I Bikeway
- Area of Potential Effect (APE)
- Optional Fence
- Orange County Parcels
- LACFCD ROW
- County Boundary

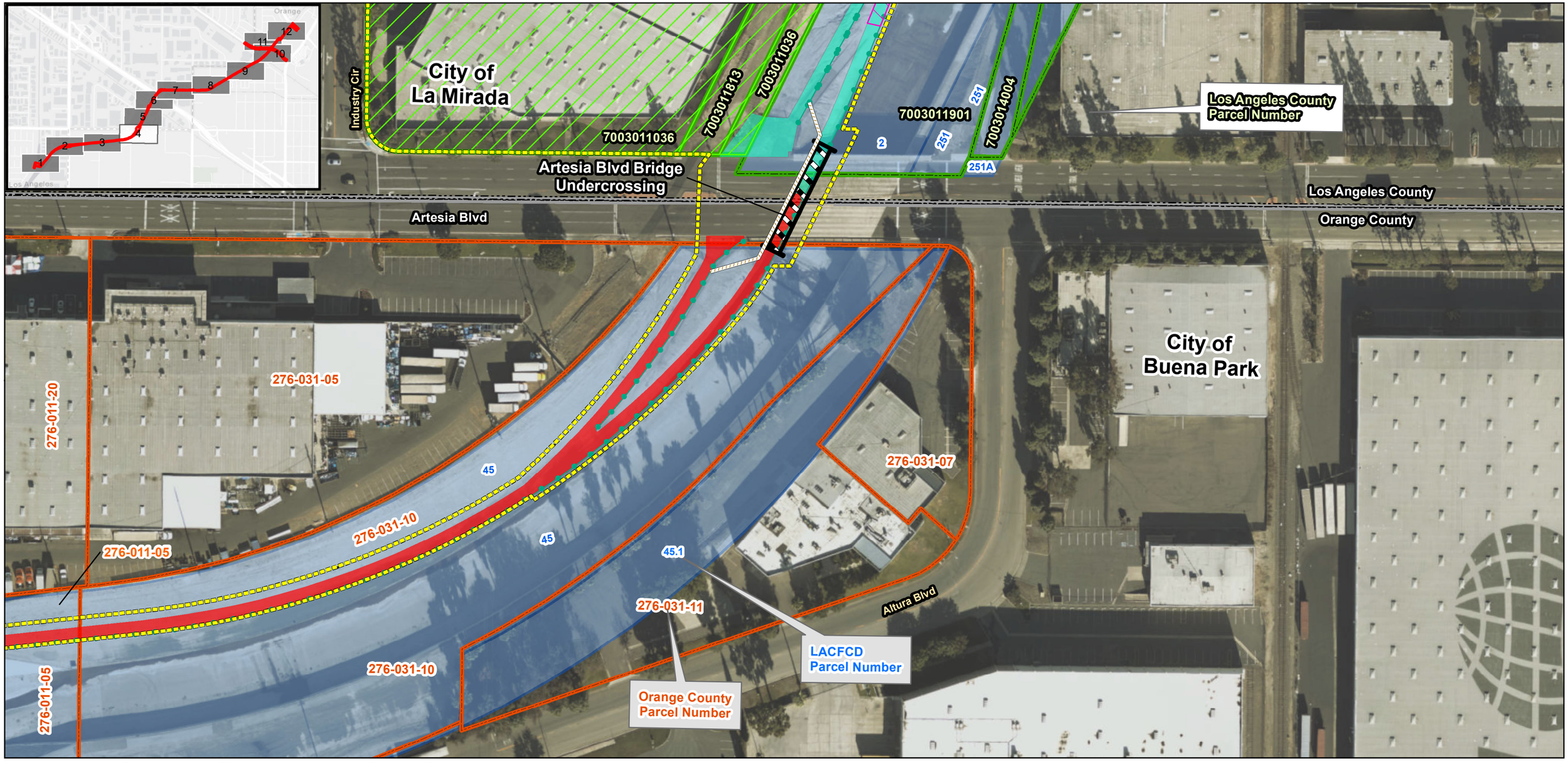
OC Loop
Segments O, P, and Q

Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 3 of 12)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,220

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment O Class I Bikeway
- Segment P Class I Bikeway
- Area of Potential Effect (APE)
- Proposed Undercrossing
- Potential UPRR Overcrossing
- Optional Fence
- Wall
- Los Angeles County Parcels
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q

Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 4 of 12)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,220

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment P Class I Bikeway
- Area of Potential Effect (APE)
- Potential UPRR Overcrossing
- Optional Fence
- Wall
- Los Angeles County Parcels
- Los Angeles County Parcels Subject to Potential Indirect Effects
- LACFCD ROW
- OCFCD ROW
- City Boundary
- County Boundary

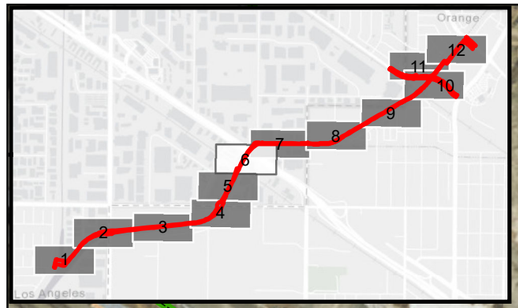
OC Loop
Segments O, P, and Q

Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 5 of 12)

UltraSystems
environmental • management • planning



City of La Mirada

S. Firestone Blvd Undercrossing

I-5 and N. Firestone Blvd Undercrossing

Trojan Way

N. Firestone Blvd

I-5/Santa Ana Freeway

S. Firestone Blvd

170th St

UPRR

UPRR Undercrossing (Preferred) or Overcrossing (Alternative)

7003009909

7003011036

7003011813

7003009903

7003011815

7003011901

7001014808

7001014908

7001016905

7001016907

7001016910

7001016913

LACFCD Parcel Number

Los Angeles County Parcel Number

Orange County Flood Control District (OCFCD) Parcel Number

S Firestone Blvd

Osmond Ave

Snell St

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,220

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment P Class I Bikeway
- Area of Potential Effect (APE)
- Proposed Undercrossing
- Potential UPRR Overcrossing
- Wall
- Los Angeles County Parcels
- Los Angeles County Parcels Subject to Potential Indirect Effects
- LACFCD ROW
- OCFCD ROW
- City Boundary
- County Boundary

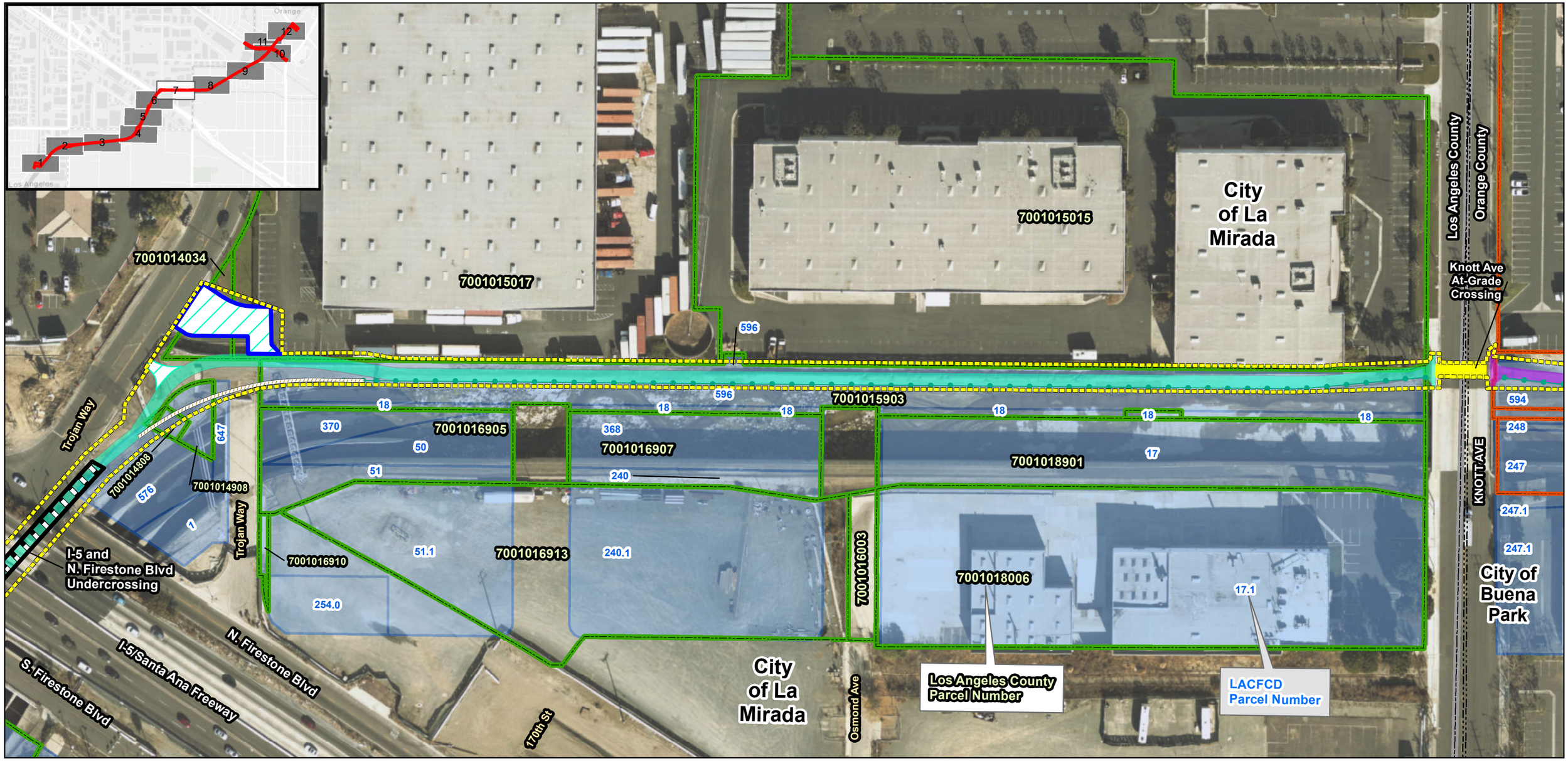
OC Loop
Segments O, P, and Q

Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 6 of 12)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,220

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment P Class I Bikeway
- Segment Q Class I Bikeway
- Area of Potential Effect (APE)
- Proposed Undercrossing
- Optional Fence
- Wall
- At-grade Crossing
- Potential Driveway
- Proposed Easement
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

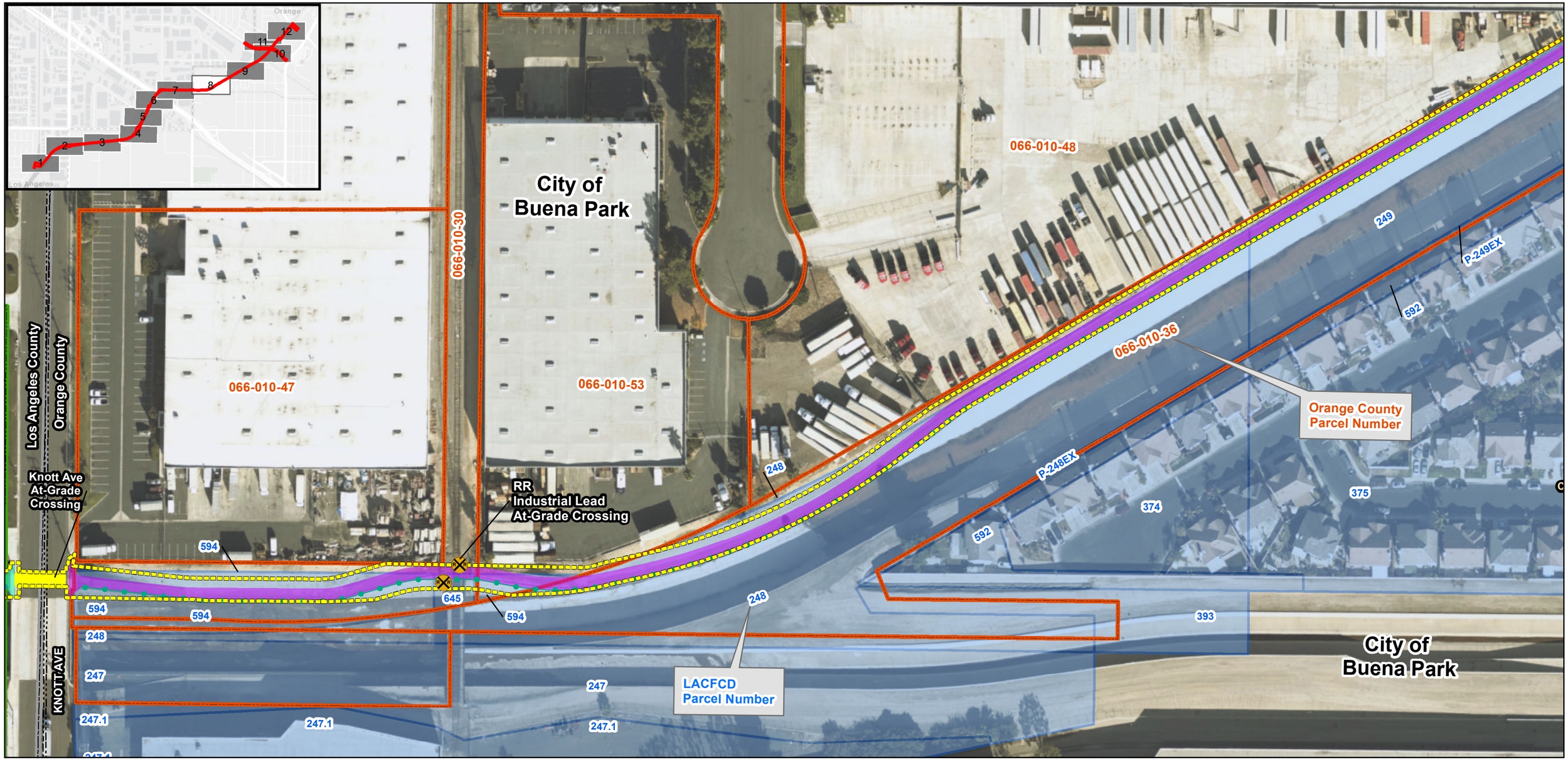
OC Loop
Segments O, P, and Q

Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 7 of 12)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,220

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment Q Class I Bikeway
- Area of Potential Effect (APE)
- Optional Fence
- At-grade Crossing
- Railroad Crossing Signal
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q

Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 8 of 12)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,220

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment Q Class I Bikeway
- Area of Potential Effect (APE)
- Optional Fence
- Wall
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q

Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 9 of 12)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,220

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment Q Class I Bikeway
- Segment Q Class II Bikeway
- Segment Q Class IV Bikeway with Concrete Barriers
- Area of Potential Effect (APE)
- Proposed Undercrossing
- Asphalt Trail and Cable Fence
- Optional Fence
- Wall
- Road Crossing
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- OCFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 10 of 12)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,220

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment Q Class I Bikeway
- Segment Q Class II Bikeway
- Segment Q Class IV Bikeway with Concrete Barriers
- Area of Potential Effect (APE)
- Asphalt Trail and Cable Fence
- Optional Fence
- Road Crossing
- Prefabricated Truss Bridge
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q

Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 11 of 12)

UltraSystems
environmental • management • planning



Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_APE_Cultural_11x17_2020_10_07.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

October 09, 2020

Scale: 1:1,220

N

0 50 100 Feet

0 15 30 Meters

Legend

- Segment Q Class I Bikeway
- Area of Potential Effect (APE)
- Asphalt Trail and Cable Fence
- Optional Fence
- Tree to be removed
- Prefabricated Truss Bridge
- Proposed Easement
- Orange County Parcels
- LACFCD ROW
- County Boundary

OC Loop
Segments O, P, and Q
Cultural Resources

Map 3: Area of Potential Effect (APE)

(Sheet 12 of 12)

UltraSystems
environmental • management • planning

ATTACHMENT B
BRIDGE INVENTORY SHEETS

OC LOOP SEGMENTS O, P, AND Q
COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works

Structure Maintenance & Investigations

Historical Significance - State Agency Bridges



District 07

Los Angeles County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
53 0166	ARROYO SECO	07-LA-134-R12.57-PAS	5. Bridge not eligible for NRHP	1953	1971
53 0171	FLORENCE AVENUE OC	07-LA-005-6.38-SFSP	5. Bridge not eligible for NRHP	1953	
53 0183	EL NIDO UP	07-LA-107-3.73-TOR	4. Historical Significance not determined	1926	1958
53 0213	SAN GABRIEL RIVER	07-LA-005-7.06-DNY	5. Bridge not eligible for NRHP	1953	1965
53 0214	CARMENITA ROAD OC	07-LA-005-2.41-NRW	5. Bridge not eligible for NRHP	1955	
53 0215L	LOS CERRITOS CHANNEL	07-LA-022-1.09-LBCH	5. Bridge not eligible for NRHP	1959	2000
53 0215R	LOS CERRITOS CHANNEL	07-LA-022-1.09-LBCH	5. Bridge not eligible for NRHP	1955	2000
53 0235	RIO HONDO	07-LA-164-4.91-EMTE	5. Bridge not eligible for NRHP	1937	1951
53 0237	ROSEMEAD UNDERPASS	07-LA-164-5.63-RSMD	5. Bridge not eligible for NRHP	1951	1972
53 0240	TEMPLE STREET UC	07-LA-110-23.61-LA	5. Bridge not eligible for NRHP	1948	
53 0240G	TEMPLE STREET UC (N110-N&S101)	07-LA-110-23.61-LA	5. Bridge not eligible for NRHP	1948	
53 0240H	TEMPLE STREET UC	07-LA-101-1.63-LA	5. Bridge not eligible for NRHP	1948	1996
53 0246	SUNSET BLVD OC	07-LA-110-23.83-LA	4. Historical Significance not determined	1948	
53 0255	LOS ANGELES RIVER	07-LA-002-15.52-LA	5. Bridge not eligible for NRHP	1961	
53 0256	RIPPLE STREET UC	07-LA-002-15.32-LA	5. Bridge not eligible for NRHP	1961	
53 0256F	RIPPLE STREET UC	07-LA-002-15.32-LA	5. Bridge not eligible for NRHP	1961	
53 0276	ARROYO SECO	07-LA-110-30.10-SPAS	2. Bridge is eligible for NRHP	1939	
53 0278M	EASTMAN AVENUE PUC	07-LA-005-14.60-VER	5. Bridge not eligible for NRHP	1951	
53 0279	COYOTE CREEK	07-LA-005-0.34-LMRD	5. Bridge not eligible for NRHP	1934	1959
53 0283F	RIPPLE STREET UC	07-LA-002-15.44-LA	5. Bridge not eligible for NRHP	1961	
53 0301	MULHOLLAND OC	07-LA-101-8.75-LA	2. Bridge is eligible for NRHP	1940	
53 0302L	SAN GABRIEL RIVER	07-LA-022-1.42-LBCH	5. Bridge not eligible for NRHP	1959	2000
53 0302R	SAN GABRIEL RIVER	07-LA-022-1.42-LBCH	5. Bridge not eligible for NRHP	1941	2000
53 0303L	LITTLE ROCK CREEK	07-LA-138-53.55	5. Bridge not eligible for NRHP	1952	
53 0303R	LITTLE ROCK CREEK	07-LA-138-53.55	5. Bridge not eligible for NRHP	1995	
53 0310	CHATSWORTH TOH	07-LA-027-19.67	4. Historical Significance not determined	1904	1921
53 0315	CHAPMAN (LACMTA & SCRRA) UNDERPASS	07-LA-164-10.88-PAS	4. Historical Significance not determined	1939	1971
53 0316	MAIN STREET OC	07-LA-001-35.07-SMCA	5. Bridge not eligible for NRHP	1926	
53 0317L	CLINTON STREET UC	07-LA-101-4.58-LA	5. Bridge not eligible for NRHP	1951	1982
53 0341	LOS ANGELES RIVER	07-LA-001-7.11-LBCH	5. Bridge not eligible for NRHP	1957	
53 0342	WEST FORK SAN GABRIEL RIVER	07-LA-039-26.96	5. Bridge not eligible for NRHP	1962	1968
53 0344	SYCAMORE GROVE POC	07-LA-110-27.64-LA	2. Bridge is eligible for NRHP	1940	
53 0345	WEST POMONA OH	07-LA-071-1.31-POM	5. Bridge not eligible for NRHP	1926	1939
53 0346	EAST SPADRA OH	07-LA-071-R1.20-POM	5. Bridge not eligible for NRHP	1939	
53 0347	HOBSON AVENUE OH	07-LA-001-8.34-LBCH	5. Bridge not eligible for NRHP	1948	
53 0352	WILMINGTON OH	07-LA-001-9.93-LA	5. Bridge not eligible for NRHP	1936	
53 0355	PIPE LINE UC	07-LA-001-8.72-LA	5. Bridge not eligible for NRHP	1934	1948
53 0356	REFINERY ROAD UC	07-LA-001-8.78-LA	5. Bridge not eligible for NRHP	1934	
53 0361	CASPIAN AVENUE STORM DRAIN	07-LA-405-7.95-LBCH	5. Bridge not eligible for NRHP	1961	
53 0361F	CASPIAN AVENUE STORM DRAIN	07-LA-405-7.95-LBCH	5. Bridge not eligible for NRHP	1961	
53 0363L	LOS ANGELES AQUEDUCT	07-LA-014U-T27.37	5. Bridge not eligible for NRHP	1969	
53 0363M	LOS ANGELES AQUEDUCT	07-LA-014U-T27.37	5. Bridge not eligible for NRHP	1938	
53 0364	TEMESCAL CANYON CREEK	07-LA-001-38.12-LA	5. Bridge not eligible for NRHP	1932	1969

Structure Maintenance & Investigations

SM&I

Historical Significance - Local Agency Bridges

March 2019

District 07

Los Angeles County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built
53C0079	SAN GABRIEL RIV	0.3MI W/O I-605 FWY	5. Bridge not eligible for NRHP	1951
53C0080	SAN GABRIEL RIV	0.2MI W/O I-605 FWY	5. Bridge not eligible for NRHP	1951
53C0081	SAN GABRIEL RIV	0.3MI N/O I-605 FWY	5. Bridge not eligible for NRHP	1951
53C0082	SAN GABRIEL RIV	0.2MI W/O I-605 FWY	5. Bridge not eligible for NRHP	1953
53C0083	SAN GABRIEL RIV	0.3MI W/O I-605 FWY	5. Bridge not eligible for NRHP	1952
53C0084	SAN GAB R BNSF UPRR ATSF	0.8MI W/O 605 FWY	5. Bridge not eligible for NRHP	1958
53C0085	RIO HONDO	1.0MI W/O PARAMOUNT BLVD	5. Bridge not eligible for NRHP	1953
53C0087	RIO HONDO	0.3MI E/O I-5 FWY	5. Bridge not eligible for NRHP	1954
53C0088	SAW PIT WASH	0.3MI S/O LIVE OAK AVE	5. Bridge not eligible for NRHP	1960
53C0089	SAN GABRIEL RIV	0.5MI W/O I-605 FWY	5. Bridge not eligible for NRHP	1952
53C0094	FREMONT AVE UP	INTERSTATE ROUTE 10	5. Bridge not eligible for NRHP	1952
53C0096	LOS ANGELES RIVER	0.1 M NE FWY 5	2. Bridge is eligible for NRHP	1927
53C0097	6TH STREET UP	INTERSTATE ROUTE 10	5. Bridge not eligible for NRHP	1953
53C0098	GARFIELD AVENUE UP	AT INTERSTATE RTE 10	5. Bridge not eligible for NRHP	1953
53C0099	NEW AVENUE (METROLINK) UP	AT INTERSTATE RTE 10	5. Bridge not eligible for NRHP	1953
53C0100	DEL MAR AVE UNDERPASS	AT SAN BERNARDINO FWY	5. Bridge not eligible for NRHP	1953
53C0101	SAN GABRIEL BLVD (UP RR) UP	AT SAN BERNARDINO FWY	5. Bridge not eligible for NRHP	1953
53C0102	WALNUT GROVE AV UNDERPASS	AT SAN BERNARDINO FWY	5. Bridge not eligible for NRHP	1953
53C0104	MEDEA CRK	0.3MI E/O KANAN RD	5. Bridge not eligible for NRHP	1920
53C0106	SAN GABRIEL RIV / FR	0.5MI W/O I-605 FWY	5. Bridge not eligible for NRHP	1952
53C0107	ARROYO BLVD / ARROYO S	0.5MI E/O SAN RAFAEL AVE	1. Bridge is on NRHP	1913
53C0109	SEARS ACCESS TUNNEL	0.1MI N/O I-10 FWY	5. Bridge not eligible for NRHP	1965
53C0114	VIOLIN CRK	1.0MI N/O LAKE HUGHES RD	5. Bridge not eligible for NRHP	1930
53C0122	SPTCO	0.2MI W/O I-605 FWY	5. Bridge not eligible for NRHP	1954
53C0124	WESTBOUND BUSWAY OC	1/2 MI S VALLEY BLVD	5. Bridge not eligible for NRHP	1956
53C0125	4TH ST VIADUCT (FLOWER ST)	BTWN HOPE ST & HARBOR FY	5. Bridge not eligible for NRHP	1956
53C0126	EATON WASH	0.2MI W/O BALDWIN AVE	5. Bridge not eligible for NRHP	1955
53C0128	CHARTER OAK WASH	0.1MI E/O CITRUS ST	5. Bridge not eligible for NRHP	1956
53C0130	LOS ANGELES RIVER	0.2 MI W/O FWY 10	2. Bridge is eligible for NRHP	1926
53C0131	CESAR E CHAVEZ UP	0.2 MI EAST ALAMEDA ST	1. Bridge is on NRHP	1937
53C0132	BALLONA CREEK	0.13 MI S/O VENICE BLVD	5. Bridge not eligible for NRHP	1962
53C0134	SEP GLENDALE BL & SUNSET BLVD	0.17 M E. ALVARADO STREET	5. Bridge not eligible for NRHP	1934
53C0135L	DOMINGUEZ CHAN	0.3MI N/O I-405 FWY	5. Bridge not eligible for NRHP	1963
53C0135R	DOMINGUEZ CHAN	0.3MI N/O I-405 FWY	5. Bridge not eligible for NRHP	1963
53C0136	SILVER LAKE BLVD UC	100 M N OF PARKMAN	2. Bridge is eligible for NRHP	1934
53C0138	SAN JOSE CREEK (PECK RD) UP	1/4 MI NW WORKMAN MILL RD	5. Bridge not eligible for NRHP	1962
53C0139	SAN GABRIEL RIV	0.3MI E/O STUDEBAKER RD	5. Bridge not eligible for NRHP	1964
53C0140	HOPE STREET OC	AT 4TH STREET	5. Bridge not eligible for NRHP	1969
53C0142	FREMONT AVE	0.8MI W/O ATLANTIC BLVD	5. Bridge not eligible for NRHP	1934
53C0143	MONTEREY PASS RD	0.7MI W/O ATLANTIC BLVD	5. Bridge not eligible for NRHP	1934
53C0147	ALHAMBRA WASH	100FT W/O SAN GAB BLVD	5. Bridge not eligible for NRHP	1935
53C0149	COYOTE CRK	0.8MI E/O VALLEY VIEW AVE	5. Bridge not eligible for NRHP	1950
53C0150	COYOTE CRK	0.9MI E/O VALLEY VIEW AVE	5. Bridge not eligible for NRHP	1950

Structure Maintenance & Investigations

Historical Significance - Local Agency Bridges



District 07

Los Angeles County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	
53C0386	UNNAMED WASH	MM 4.00	5. Bridge not eligible for NRHP	1921	1931
53C0387	UNNAMED WASH	0.3MI N/O AVE E	5. Bridge not eligible for NRHP	1921	1931
53C0388	OBAN WASH	2.2MI S/O KERN CO LINE	5. Bridge not eligible for NRHP	1921	1931
53C0389	UNNAMED WASH	2.0MI S/O KERN CO LINE	5. Bridge not eligible for NRHP	1921	1931
53C0392	GAVIN CYN CRK	0.1MI W/O I-5 FWY	5. Bridge not eligible for NRHP	1928	1952
53C0395	LITTLE DALTON WASH	0.8MI E/O AZUSA AVE	5. Bridge not eligible for NRHP	1960	
53C0396	SANTA ANITA WASH	0.2MI E/O SANTA ANITA AVE	5. Bridge not eligible for NRHP	1928	
53C0397	LAS VIRGENES CRK	0.1MI W/O LAS VIRGENES	5. Bridge not eligible for NRHP	1972	
53C0398	SAN GABRIEL RIV	0.3MI W/O I-605 FWY	5. Bridge not eligible for NRHP	1941	
53C0399	ELBERON AVENUE	0.1 M W/O GAFFEY PLACE	2. Bridge is eligible for NRHP	1936	
53C0404	CARSON ST	0.5MI E/O LAKEWOOD BLVD	5. Bridge not eligible for NRHP	1956	
53C0405	LOS CERRITOS DRN CHAN	0.4MI W/O BELLFLOWER BLVD	5. Bridge not eligible for NRHP	1942	
53C0406	PALO VERDE STORM DN	0.5MI E/O WOODRUFF AVE	5. Bridge not eligible for NRHP	1950	
53C0407	COMPTON CRK	0.1MI E/O CENTRAL AVE	5. Bridge not eligible for NRHP	1984	
53C0409	SAWPIT WASH	0.2MI N/O HUNTINGTON DR	5. Bridge not eligible for NRHP	1956	
53C0410	COYOTE CRK	0.6MI E/O VALLEY VIEW AVE	5. Bridge not eligible for NRHP	1967	
53C0416	AMARGOSA DRN	200FT E/O SR-14 FWY	5. Bridge not eligible for NRHP	1968	
53C0417	COYOTE CRK NF	0.3MI W/O VALLEY VIEW AV	5. Bridge not eligible for NRHP	1959	
53C0418	PARAMOUNT BLVD	0.1MI N/O WHITTIER BLVD	5. Bridge not eligible for NRHP	1972	
53C0420	VALLEY BLVD (UP RR) UP	0.1 MI W SANTA ANITA AVE	5. Bridge not eligible for NRHP	1973	
53C0421	RIO HONDO	0.2MI W/O ROSEMEAD BLVD	5. Bridge not eligible for NRHP	1982	
53C0422L	SAN GABRIEL RIV	0.5MI W/O I-605 FWY	5. Bridge not eligible for NRHP	1971	
53C0422R	SAN GABRIEL RIV	0.5MI W/O I-605 FWY	5. Bridge not eligible for NRHP	1971	
53C0423	ARTESIA-NORWALK STORM DN	0.5MI E/O I-605 FWY	5. Bridge not eligible for NRHP	1955	
53C0424	BROWNS CANYON WASH (DEVONSHIRE ST)	AT CANOGA AVE	5. Bridge not eligible for NRHP	1974	
53C0426	SAN DIMAS WASH	0.5MI W/O SAN DIMAS C RD	5. Bridge not eligible for NRHP	1963	
53C0430	BIG DALTON WASH	0.1MI E/O PUENTE AVE	5. Bridge not eligible for NRHP	1959	
53C0431	PUENTE CRK	0.4MI E/O SUNSET AVE	5. Bridge not eligible for NRHP	1956	
53C0432	SAN JOSE CRK	0.8MI E/O GRAND AVE	5. Bridge not eligible for NRHP	1961	
53C0433	EATON WASH	0.5MI E/O ROSEMEAD BLVD	5. Bridge not eligible for NRHP	1956	
53C0434	ARCADIA WASH	0.4MI W/O SANTA ANITA AVE	5. Bridge not eligible for NRHP	1959	
53C0435	RIO HONDO	1.0MI W/O PECK RD	5. Bridge not eligible for NRHP	1959	
53C0436	SAN GABRIEL RIV	0.3MI W/O IS 605	5. Bridge not eligible for NRHP	1960	
53C0437	ARCADIA WASH	0.1MI E/O EL MONTE AVE	5. Bridge not eligible for NRHP	1955	
53C0438	SANTA ANITA WASH	0.8MI E/O SANTA ANITA AVE	5. Bridge not eligible for NRHP	1959	
53C0439	SAW PIT WASH	75FT E/O PECK RD	5. Bridge not eligible for NRHP	1952	
53C0440	LITTLE DALTON WASH	0.5MI W/O AZUSA AVE	5. Bridge not eligible for NRHP	1952	
53C0441	SAN DIMAS WASH	0.3MI W/O I-10 FWY	5. Bridge not eligible for NRHP	1959	
53C0443	MARSHALL CYN WASH	1.2MI W/O WHITE AVE	5. Bridge not eligible for NRHP	1967	
53C0444	EATON WASH	0.2MI W/O ROSEMEAD BLVD	5. Bridge not eligible for NRHP	1927	
53C0445	LOS ANGELES RIV	0.8MI E/O ATLANTIC BLVD	5. Bridge not eligible for NRHP	1942	
53C0446	SAN GABRIEL RIV	0.3MI E/O I-605 FWY	5. Bridge not eligible for NRHP	1961	
53C0447	SUSANA CYN CRK	2.2MI E/O SAN G CYN RD	5. Bridge not eligible for NRHP	1942	

Structure Maintenance & Investigations



Historical Significance - Local Agency Bridges

District 07

Los Angeles County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built
53C0804	SAN DIMAS WASH	230FT N/O ARROW HWY	5. Bridge not eligible for NRHP	1966
53C0805	SANTA CLARA RIV SF	0.8MI E/O I-5 FWY	5. Bridge not eligible for NRHP	1966
53C0806	CHARTER OAK WASH	BARRANCA AVE	5. Bridge not eligible for NRHP	1966
53C0807	SPTCO	1.4MI E/O 87TH ST E	5. Bridge not eligible for NRHP	1967
53C0810	25TH ST E	0.3MI S/O AVE S	5. Bridge not eligible for NRHP	1967
53C0811	CALIFORNIA AQUEDUCT	1MI S/O AVE D	5. Bridge not eligible for NRHP	1967
53C0812	CALIFORNIA AQUEDUCT	3MI N/O ELIZ LK RD	5. Bridge not eligible for NRHP	1968
53C0813	CALIFORNIA AQUEDUCT	0.3MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C0814	CALIFORNIA AQUEDUCT	0.3MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C0815	COYOTE CRK	0.2MI S/O ARTESIA BLVD	5. Bridge not eligible for NRHP	1966
53C0816	SAN JOSE CR	0.6MI N/O SR-60 FWY	5. Bridge not eligible for NRHP	1967
53C0817	SHORELINE DR	0.1MI S/O OCEAN BLVD	5. Bridge not eligible for NRHP	1970
53C0818	NORWALK DRN CHAN	0.5MI S/O I-605 FWY	5. Bridge not eligible for NRHP	1963
53C0820	LOS CERRITOS DRN CHANN	0.4MI N/O I-405 FWY	5. Bridge not eligible for NRHP	1958
53C0821	243RD STREET POC	0.5 MI S OF SEPULVEDA BL	5. Bridge not eligible for NRHP	1968
53C0823	HARBOR SCENIC DR SOUTHBOUND	1.0MI S/O OCEAN BLVD	5. Bridge not eligible for NRHP	1970
53C0824	PRIVATE DRN #669	0.6MI N/O I-405 FWY	5. Bridge not eligible for NRHP	1966
53C0825	VERMONT AVE OH ATSF RR	0.4MI S/O SEPULVEDA BLVD	5. Bridge not eligible for NRHP	1970
53C0826	PICO CYN CHAN	1MI N/O LYONS AVE	5. Bridge not eligible for NRHP	1971
53C0827	LOS ANGELES RIV	0.1MI E/O SOTO ST	5. Bridge not eligible for NRHP	1969
53C0828	TRIUNFO CYN CRK	1.5MI S/O US-101 FWY	5. Bridge not eligible for NRHP	1970
53C0830	LEFFINGWELL CRK	0.5MI W/O LA MIRADA BLVD	5. Bridge not eligible for NRHP	1970
53C0831	SAN DIMAS WASH	100FT N/O GLADSTONE ST	5. Bridge not eligible for NRHP	1969
53C0832	SHORELINE DR	0.3MI W/O MAGNOLIA	5. Bridge not eligible for NRHP	1958
53C0833	PRIVATE DRN #553	0.1MI S/O SEPULVEDA BL	5. Bridge not eligible for NRHP	1967
53C0835	PALO VERDE DRN	50FT E/O WOODRUFF AVE	5. Bridge not eligible for NRHP	1961
53C0836	BIG DALTON WASH	0.5MI E/O LORAINE AVE	5. Bridge not eligible for NRHP	1968
53C0837	LEFFINGWELL CRK	0.2MI N/O MULBERRY DRIVE	5. Bridge not eligible for NRHP	1974
53C0838	PASEO VALENCIA POC	0.2 MI S/O MCBEAN PKWY	5. Bridge not eligible for NRHP	1970
53C0839	MEDEA CRK	0.4MI N/O US-101 FWY	5. Bridge not eligible for NRHP	1971
53C0840	SANTA CLARA RIV SF	1.0MI N/O LYONS AVE	5. Bridge not eligible for NRHP	1970
53C0841	CLARK AVE DRN	400FT E/O CLARK AVE	5. Bridge not eligible for NRHP	1977
53C0842	EL SEGUNDO BLVD UP (BNSF)	20' WEST AVIATION BLVD	5. Bridge not eligible for NRHP	1975
53C0844	FC ACCESS RD UC	0.3MI E/O I-710 FWY	5. Bridge not eligible for NRHP	1974
53C0845	SPRR / ALAMEDA ST	0.8MI E/O WILMINGTON AVE	5. Bridge not eligible for NRHP	1975
53C0846	PUENTE CR	0.1MI S/O AMAR RD	5. Bridge not eligible for NRHP	1970
53C0847	PRIVATE DRN #571	200FT S/O US-101 FWY	5. Bridge not eligible for NRHP	1971
53C0848	CHESEBORO CYN CRK	300FT W/O CHESEBORO RD	5. Bridge not eligible for NRHP	1972
53C0849	CHESEBORO CYN CRK	50FT N/O AGOURA RD	5. Bridge not eligible for NRHP	1973
53C0850	IMPERIAL HIGHWAY	0.5MI W/O PARAMONT BLVD	5. Bridge not eligible for NRHP	1973
53C0851	VIOLIN CRK	1.0MI E/O I-5 FWY	5. Bridge not eligible for NRHP	1971
53C0852	BNSF	0.5MI S/O 190TH ST	5. Bridge not eligible for NRHP	1975
53C0853	PUENTE CRK	0.8MI W/O AZUSA AVE	5. Bridge not eligible for NRHP	1974

Bridge #	Dist	Name	Loc	Fac	City	Yr Blt	Hist	Mat	Type	County	NR Update	Owner
53C1491	7	Coyote Creek	0.1 Mi N Firestone Blvd	Trojan Way	La Mirada	1967	5	2	01	53	5	County

* Database entry provided by Caltrans District 12 staff.

Structure Maintenance & Investigations

SM&I

Historical Significance - Local Agency Bridges

March 2019

District 07

Los Angeles County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built
53C1499	CALIFORNIA AQUEDUCT	0.5MI S/O AVE S	5. Bridge not eligible for NRHP	1968
53C1500	CALIFORNIA AQUEDUCT	0.5MI E/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1501	CALIFORNIA AQUEDUCT	0.8MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1502	CALIFORNIA AQUEDUCT	0.8MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1503	CALIFORNIA AQUEDUCT	1.5MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1504	CALIFORNIA AQUEDUCT	0.3MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1505	CALIFORNIA AQUEDUCT	0.3MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1506	CALIFORNIA AQUEDUCT	0.1MI N/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1507	CALIFORNIA AQUEDUCT	0.3MI N/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1508	CALIFORNIA AQUEDUCT	1.0MI N/O SR-138 HWY	5. Bridge not eligible for NRHP	1969
53C1509	CALIFORNIA AQUEDUCT	0.3MI N/O FT TEJON RD	5. Bridge not eligible for NRHP	1969
53C1510	CALIFORNIA AQUEDUCT	2.5MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1969
53C1511	CALIFORNIA AQUEDUCT	2.0MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1512	CALIFORNIA AQUEDUCT	0.3MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1513	CALIFORNIA AQUEDUCT	1.0MI S/O SR-138 HWY	5. Bridge not eligible for NRHP	1968
53C1514	PRIVATE DRN #212	0.1MI E/O MAIN ST	5. Bridge not eligible for NRHP	1967
53C1515	COYOTE CRK	0.1MI N/O I-5 FWY	5. Bridge not eligible for NRHP	1967
53C1516	SAN JOSE CRK	0.2MI S/O VALLEY BLVD	5. Bridge not eligible for NRHP	1968
53C1517	EATON WASH	0.1MI W/O ROSEMEAD BLVD	5. Bridge not eligible for NRHP	1967
53C1518	PRIVATE DRN #728	30FT S/O LINDERO CYN RD	5. Bridge not eligible for NRHP	1967
53C1519	PRIVATE DRN #669	0.4MI N/O DEL AMO BLVD	5. Bridge not eligible for NRHP	1966
53C1520	PRIVATE DRN #669	0.3MI E/O AVALON BLVD	5. Bridge not eligible for NRHP	1966
53C1521	PUC	0.1MI W/O AVENIDA ROTELLA	5. Bridge not eligible for NRHP	1967
53C1522	PUC	0.1MI N/O LYONS AVE	5. Bridge not eligible for NRHP	1967
53C1523	PRIVATE DRN #553	0.5MI S/O SEPULVEDA BLVD	5. Bridge not eligible for NRHP	1967
53C1524	HACIENDA CRK	0.2MI W/O HACIENDA BLVD	5. Bridge not eligible for NRHP	1968
53C1525	GARAPITO CRK	50FT W/O TOPANGA CYN BLVD	5. Bridge not eligible for NRHP	1968
53C1526	UNNAMED WASH	0.5MI W/O 170TH ST E	5. Bridge not eligible for NRHP	1969
53C1527	MAREK CYN WASH	1.3MI N/O FOOTHILL BLVD	5. Bridge not eligible for NRHP	1970
53C1528	DRY CYN CHAN	0.3MI W/O SECO CYN RD	5. Bridge not eligible for NRHP	1972
53C1529	DRY CYN CHAN	0.3MI W/O SECO CYN RD	5. Bridge not eligible for NRHP	1970
53C1530	PUENTE CRK	0.1MI S/O AMAR RD	5. Bridge not eligible for NRHP	1970
53C1531	ELIZABETH CYN CRK	11MI NE/O I-5 FWY	5. Bridge not eligible for NRHP	1970
53C1532	PRIVATE DRN #771	0.8MI N/O SR-14 FWY	5. Bridge not eligible for NRHP	1970
53C1533	PRIVATE DRN #771	0.3MI N/O SR-14 FWY	5. Bridge not eligible for NRHP	1970
53C1534	PRIVATE DRN #571	0.2MI S/O US-101 FWY	5. Bridge not eligible for NRHP	1971
53C1535	PRIVATE DRN #792	30FT S/O LINDERO CYN RD	5. Bridge not eligible for NRHP	1969
53C1536	PRIVATE DRN #808	200FT N/O PKWY CALABASAS	5. Bridge not eligible for NRHP	1970
53C1537	EXCELSIOR WASH	0.1MI W/O CARMENITA RD	5. Bridge not eligible for NRHP	1959
53C1538	DRY CYN CHAN	0.3MI W/O BOUQUET CYN RD	5. Bridge not eligible for NRHP	1970
53C1539	CHESEBORO CYN CRK	0.1MI S/O US-101 FWY	5. Bridge not eligible for NRHP	1970
53C1540	MARSHALL CYN WASH	0.1MI E/O WHEELER AVE	5. Bridge not eligible for NRHP	1978
53C1541	SAN GABRIEL RIV	0.3MI W/O STUDEBAKER RD	5. Bridge not eligible for NRHP	1972

Structure Maintenance & Investigations



Historical Significance - Local Agency Bridges

March 2019

District 12

Orange County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	
55C0002	TRABUCO CREEK CHANNEL	0.1 MI SE/O TRABCO CRK RD	5. Bridge not eligible for NRHP	1959	1991
55C0003	PRIMA DESHECHA CANADA	100' E/O CAMINO CAPISTRAN	5. Bridge not eligible for NRHP	1928	1974
55C0007	SANTA ANA DELHI CHANNEL	0.2 MI. E/O BRISTOL ST.	5. Bridge not eligible for NRHP	1981	
55C0008	TRABUCO CREEK	1.4 mi n/o Snta Margarita	5. Bridge not eligible for NRHP	1980	
55C0013	WEST LIDO CHANNEL	0.3 MI. E/O NEWPORT BLVD	5. Bridge not eligible for NRHP	1930	
55C0014	BALBOA ISLAND CHANNEL	0.1 MI. S/O BAYSIDE DRIVE	5. Bridge not eligible for NRHP	1930	
55C0015	GRAND CANAL	0.1 MI. E/O MARINE AVE.	5. Bridge not eligible for NRHP	1930	
55C0016	SANTIAGO CREEK CHANNEL	0.1 MI. N/O ROUTE 22 FWY	5. Bridge not eligible for NRHP	1939	
55C0017	SANTA ANA RIVER CHANNEL	0.7 MI E/O ROUTE 57 FWY.	5. Bridge not eligible for NRHP	1970	
55C0034	SAN JUAN CREEK CHANNEL	0.4 MI. S/O DEL OBISPO ST	5. Bridge not eligible for NRHP	1987	
55C0037	OSO CREEK	1.3 MI N OF AVERY PARKWAY	5. Bridge not eligible for NRHP	1938	
55C0038	SANTIAGO CREEK	0.2 MI W/O SILVERADO CYN	5. Bridge not eligible for NRHP	1963	
55C0039R	COYOTE CREEK CHANNEL	0.9 MI. N/O ORANGETHORPE	5. Bridge not eligible for NRHP	1967	
55C0041L	LOS ALAMITOS CHANNEL	0.8 MI W/O SEAL BEACH BL.	5. Bridge not eligible for NRHP	1964	
55C0041R	LOS ALAMITOS CHANNEL	0.8 MI W/O SEAL BEACH BL.	5. Bridge not eligible for NRHP	1964	
55C0042L	FEDERAL STORM CHANNEL	0.7 MI W/O SEAL BEACH BL.	5. Bridge not eligible for NRHP	1964	
55C0042R	FEDERAL STORM CHANNEL	0.7 MI W/O SEAL BEACH BL.	5. Bridge not eligible for NRHP	1964	
55C0043	SANTIAGO CREEK CHANNEL	0.3 MI. N/O ROUTE 22 FWY	5. Bridge not eligible for NRHP	1941	
55C0045	GREENVILLE-BANNING CHANNEL	150' N/O IOWA STREET	5. Bridge not eligible for NRHP	1963	
55C0046	SANTA ANA RIVER CHANNEL	0.1 MI. E/O CITY DRIVE	5. Bridge not eligible for NRHP	1936	
55C0047	SANTIAGO CREEK CHANNEL	0.3 MI N SANTA CLARA AVE	5. Bridge not eligible for NRHP	1930	
55C0049	SANTIAGO CREEK	0.3 MI S/O MODJESKA RD	5. Bridge not eligible for NRHP	1967	
55C0050	SANTA ANA RIVER CHANNEL	0.1 MI. W/O ROUTE 57 FWY	5. Bridge not eligible for NRHP	1966	
55C0051	FULLERTON CREEK CHANNEL	0.1 MI. NW/O TENTH STREET	5. Bridge not eligible for NRHP	1959	
55C0052	COYOTE CREEK CHANNEL	0.3 MI. N/O CERRITOS AVE.	5. Bridge not eligible for NRHP	1955	
55C0054	SANTA ANA RIVER CHANNEL	0.1 MI. W/O ROUTE 57 FWY	5. Bridge not eligible for NRHP	1976	
55C0055	SANTIAGO CREEK CHANNEL	0.2 MI N/O ROUTE 5 FWY	5. Bridge not eligible for NRHP	1918	
55C0056	OSO PARKWAY OH	0.1 MI WEST OF ROUTE I-5	5. Bridge not eligible for NRHP	1971	
55C0057	SANTIAGO CREEK CHANNEL	0.1 MI E/O ROUTE 55 FWY	5. Bridge not eligible for NRHP	1961	
55C0059	WILLIAMS CANYON CREEK	0.8 MI N/O MODJESKA RD	5. Bridge not eligible for NRHP	1970	
55C0062	SAN JUAN CREEK CHANNEL	0.4 MI. S/O ORTEGA HWY	5. Bridge not eligible for NRHP	1971	
55C0063	ALISO CREEK	1.0 MI. NE/O TRABUCO ROAD	5. Bridge not eligible for NRHP	1975	
55C0064	BREA CANYON CHANNEL	0.1 MI. W/O BREA BLVD.	5. Bridge not eligible for NRHP	1969	
55C0065	LIMESTONE CANYON	4.4 mi se/o JAMBOREE RD.	5. Bridge not eligible for NRHP	1931	
55C0068	CARBON CREEK CHANNEL	0.1 MI. S/O ORANGETHORPE	5. Bridge not eligible for NRHP	1970	
55C0069	COLLINS CHANNEL	AT BATAVIA ST	5. Bridge not eligible for NRHP	1959	
55C0070	KATELLA AVENUE UP	0.2 MI E/O STATE COLLEGE	5. Bridge not eligible for NRHP	1967	
55C0071	COYOTE CREEK CHANNEL	0.1 MI. NW/O BEACH BLVD.	5. Bridge not eligible for NRHP	1960	
55C0072	ANAHEIM-BARBER CITY CHANNEL	0.4 MI. E/O EUCLID STREET	5. Bridge not eligible for NRHP	1963	
55C0073	EAST GARDEN GROVE-WINTRSBURG CHANNEL	0.2 MI E EUCLID ST	5. Bridge not eligible for NRHP	1960	
55C0074	WESTMINSTER CHANNEL	0.2 MI E/O SPRINGDALE AV	5. Bridge not eligible for NRHP	1963	
55C0075	WESTMINSTER CHANNEL	100' N/O EDINGER AVE	5. Bridge not eligible for NRHP	1960	
55C0077	ANAHEIM-BARBER CITY CHANNEL	0.4 MI E/O ROUTE 39	5. Bridge not eligible for NRHP	1959	

Structure Maintenance & Investigations

Historical Significance - Local Agency Bridges



District 12

Orange County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built
55C0198	COYOTE CREEK CHANNEL	0.2 MI. NW/O BEACH BLVD.	5. Bridge not eligible for NRHP	1950
55C0199	CARBON CREEK CHANNEL	0.1 MI. N/O BALL ROAD	5. Bridge not eligible for NRHP	1958
55C0200	FULLERTON CREEK CHANNEL	0.2 M N. ORANGETHORPE AVE	5. Bridge not eligible for NRHP	1950
55C0201	FULLERTON CREEK CHANNEL	50' N/O MELROSE STREET	5. Bridge not eligible for NRHP	1958
55C0203	SAN DIEGO CREEK CHANNEL	0.3 KM W HARVARD AVE	5. Bridge not eligible for NRHP	1976
55C0204	SAN JOAQUIN CHANNEL	50' E HARVARD AVE	5. Bridge not eligible for NRHP	1950
55C0205	SANTA ANA DELHI CHANNEL	0.1 MI S/O BRISTOL STREET	5. Bridge not eligible for NRHP	1960
55C0211	LAKE FOREST DRIVE UP	0.3 MI N/O MUIRLANDS BLVD	5. Bridge not eligible for NRHP	1974
55C0212	RIDGE ROUTE DRIVE UP	0.2 MI S/O JERONIMO ROAD	5. Bridge not eligible for NRHP	1967
55C0213	LOS ALISOS BLVD OH	0.2 MI SW/O JERONIMO RD	5. Bridge not eligible for NRHP	1977
55C0214L	ALICIA PARKWAY OH	0.20 MI SW/O JERONIMO RD	5. Bridge not eligible for NRHP	1976
55C0214R	ALICIA PARKWAY OH	0.20 MI SW/O JERONIMO RD	5. Bridge not eligible for NRHP	1973
55C0215L	LA PAZ ROAD OH	200' NE/O MUIRLANDS BLVD	5. Bridge not eligible for NRHP	1965
55C0215R	LA PAZ ROAD OH	200' NE/O MUIRLANDS BLVD.	5. Bridge not eligible for NRHP	1965
55C0216L	ALISO CREEK	0.35 MI. E/O EL TORO ROAD	5. Bridge not eligible for NRHP	1975
55C0216R	ALISO CREEK	0.35 MI. E/O EL TORO ROAD	5. Bridge not eligible for NRHP	1975
55C0218	ALISO CREEK	200' NW/O LOS ALISOS BLVD	5. Bridge not eligible for NRHP	1973
55C0219	ALISO CREEK	0.29 MI. S/O MUIRLAND BL.	5. Bridge not eligible for NRHP	1973
55C0220	ALISO CREEK	0.8 MI N OF ALICIA PKWY	5. Bridge not eligible for NRHP	1966
55C0221L	ALISO CREEK	1.5 MI S EL TORO RD	5. Bridge not eligible for NRHP	1987
55C0221R	ALISO CREEK	1.5 MI S EL TORO RD	5. Bridge not eligible for NRHP	1969
55C0222	SERRANO CREEK	0.2 MI. NW/O LAKE FOREST	5. Bridge not eligible for NRHP	1969
55C0223	SERRANO CREEK	100' NE/O TOLEDO WAY	5. Bridge not eligible for NRHP	1975
55C0224	BREA CREEK CHANNEL	100' S/O MALVERN AVE	5. Bridge not eligible for NRHP	1940
55C0225	BREA CREEK CHANNEL	50' N/O CHAPMAN AVE	5. Bridge not eligible for NRHP	1940
55C0226	BREA CREEK CHANNEL	50' N/O CHAPMAN AVE	5. Bridge not eligible for NRHP	1922
55C0227	BREA CREEK CHANNEL	50' N/O CHAPMAN AVE	5. Bridge not eligible for NRHP	1922
55C0228	BREA CREEK CHANNEL	50' N/O CHAPMAN AVE	5. Bridge not eligible for NRHP	1934
55C0229	BREA CREEK CHANNEL	0.1 MI E/O HARBOR BLVD	5. Bridge not eligible for NRHP	1939
55C0230	BREA CREEK CHANNEL	50' E/O HARBOR BLVD	5. Bridge not eligible for NRHP	1940
55C0231	FULLERTON CREEK CHANNEL	0.2 MI E/O DALE ST	5. Bridge not eligible for NRHP	1958
55C0232	FULLERTON CREEK CHANNEL	50' N/O VALENCIA DR	5. Bridge not eligible for NRHP	1958
55C0233	FULLERTON CREEK CHANNEL	0.1 MI S/O COMMONWEALTH	5. Bridge not eligible for NRHP	1958
55C0234	FULLERTON CREEK CHANNEL	0.1 MI N/O VALENCIA DR	5. Bridge not eligible for NRHP	1961
55C0235	FULLERTON CREEK CHANNEL	0.3 MI W/O EUCLID ST	5. Bridge not eligible for NRHP	1958
55C0236	FULLERTON CREEK CHANNEL	200' N/O ASH AVE	5. Bridge not eligible for NRHP	1958
55C0237	ALICIA CREEK	200' NW ALICIA PKWAY	5. Bridge not eligible for NRHP	1968
55C0238	ALISO HILLS CREEK EQUESTRIAN UC	200' N OF LA PAZ RD	5. Bridge not eligible for NRHP	1968
55C0239	LA PAZ EQUESTRIAN UC	0.2 MI NE OF MOULTON PWY	5. Bridge not eligible for NRHP	1968
55C0242	FULLERTON CREEK CHANNEL	0.3 MI N/O ORANGETHORPE	5. Bridge not eligible for NRHP	1958
55C0243	FULLERTON CREEK CHANNEL	1/4 MI N/O ORANGETHORPE	5. Bridge not eligible for NRHP	1958
55C0244	FULLERTON CREEK CHANNEL	0.2 MI S/O VALENCIA DR	5. Bridge not eligible for NRHP	1963
55C0245	SANTA ANA-SANTA FE CHANNEL	0.4 MI. W/O JAMBOREE ROAD	5. Bridge not eligible for NRHP	1964

ATTACHMENT C
ARCHAEOLOGICAL SURVEY REPORT

OC LOOP SEGMENTS O, P, AND Q COYOTE CREEK BIKEWAY PROJECT

Orange County Department of Public Works
Orange County, California

Federal Project No. ATPL-5955(112)
Funding Source: Federal State Transportation Implementation Program
Local Agency: Orange County Department of Public Works (TO No. PW13667-051)

Prepared by:

Stephen O'Neil, M.A., RPA, Principal Investigator, Archaeology
UltraSystems Environmental, Inc., 16431 Scientific Way, Irvine, CA 92618

Reviewed by:

Jonathan M. Wright, Caltrans Professionally Qualified Staff
California Department of Transportation, District 12
1750 East 4th Street, Santa Ana, CA 92705

Approved by:

Charles Baker, Senior Environmental Planner
California Department of Transportation, District 12
1750 East 4th Street, Santa Ana, CA 92705

November 25, 2020

Approximately 12.88 acres
USGS La Habra, Los Alamitos and Whittier, Calif., 7.5' quadrangles
Sections 26, 27, 33 and 34 of T3S R11W, SBBM; Coyote Creek; Orange County

SUMMARY OF FINDINGS

The present Archaeological Survey Report (ASR) is prepared for the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway Project (Federal Aid Project No. ATPL-5955(112)) in the cities of Cerritos (Los Angeles County), Buena Park (Orange County), and La Mirada (Los Angeles County), within Caltrans District 12. A gap in the 66-mile regional bikeway corridor called the OC Loop is located along the length of the Coyote Creek flood control channel upstream and downstream of the Santa Ana Freeway (I-5 Freeway). This gap is designated as Segments O, P and Q. The OC Loop Segments O, P and Q (proposed project) begin at the existing Coyote Creek Bikeway (in the city of Cerritos) where the flood channel divides into north and east forks, running 2.7 miles connecting to another portion of the Coyote Creek Bikeway at La Mirada Boulevard/Malvern Avenue in the cities of Buena Park and La Mirada. The undertaking entails the construction of an asphalt bike path, 12 to 16 feet wide, along the existing maintenance road on the bank of the Coyote Creek flood control channel. Fencing, such as a five-foot-high chain link fence or four-foot tall cable fence may be installed on one or both sides; the fencing may be installed along the entire 2.7 miles of new bike trail if necessary. The bike path will be placed primarily on the west bank until, upstream from Stage Road, it will move to the east bank of Coyote Creek for the remaining 560 feet to La Mirada Boulevard. Where the bike path is at grade, the path would be asphalt and be 14 to 16 feet wide inclusive of the two-foot shoulders on each side, wherever a fence is added for safety. Where the bike path would travel beneath grade (below bridges), the bike path surface would be concrete and 10 to 14 feet wide with no shoulders. At street and railroad bridges the bike path will generally be below grade under the bridges. There will be at-grade crossings at Knott Avenue, the Burlington Northern Santa Fe Railway and at Stage Road via the fully signalized intersection located at McComber Road approximately 500 feet west of the channel. At the Union Pacific Railroad, a concrete box underground tunnel will be constructed. Several dirt ramps will be built at road crossing to allow access to and from streets. There will be bike/pedestrian bridges crossing the channel from bank to bank at the north and south ends of the project. Only standard and minimal bike signage and location maps conforming to OC Parks signage codes and criteria are required. (See HPSR Attachment A).

The Area of Potential Effects (APE) for the undertaking encompasses the maximum extent of ground disturbance required by the project design, both horizontally and vertically, as well as adjacent parcels occupied by historic-period buildings that may receive visual, atmospheric, or other indirect effects as a result of the undertaking (see HPSR Attachment A, Map 3) (approved and signed November 16, 2020). It comprises approximately 26.17 acres in total, all of which are subject to temporary and permanent ground disturbances during construction, and 12.88 acres of permanent disturbance. The vertical extent of the APE will not exceed the depth of 18.5 feet below the ground surface.

The Study Area for this ASR covers the 26.17 acres that will be subject to temporary and permanent ground disturbances. The ASR is prepared in compliance with Section 106 of the National Historic Preservation Act, as implemented through federal regulations outlined in 36 CFR 800, and in accordance with the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and California Department of Transportation Regarding Compliance with Section 106 of the National*

Historic Preservation Act as It Pertains to the Administration of the Federal-Aid Highway Program in California.

The purpose of the survey is to identify any archaeological resources that may receive physical impact from the proposed undertaking. The scope of the study included a historical/archaeological resources records search, historical and geoarchaeological background research, consultation with Native American and local community representatives, and a systematic field survey. Throughout the course of the study, no prehistoric archaeological features or artifact deposits were encountered within the APE, and the subsurface alluvial sediments within the vertical extent of the APE appear to be low in sensitivity for potentially significant archaeological remains of prehistoric origin in buried deposits. There are two historic cultural resources that cross the APE, segments of the Union Pacific Railroad and the Burlington Northern Santa Fe Railway; the Union Pacific Railroad (19-186110/30-176630) intersects Segment P and the Burlington Northern Santa Fe Railway (19-186804/30-176663) intersects Segment Q.

Based on these findings, the present ASR concludes that no archaeological resources will be affected by the proposed undertaking. It is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during the undertaking, it is Caltrans' policy that work stop within 60 feet of the discovery until a qualified archaeologist can evaluate the nature and significance of the find. Additional surveys will be required if the project changes to include areas not previously surveyed.

TABLE OF CONTENTS

SUMMARY OF FINDINGS i
INTRODUCTION 1
PROJECT LOCATION AND DESCRIPTION 1
Summary of Segment O Improvements 3
Summary of Segment P Improvements 4
Summary of Segment Q Improvements 6
SOURCES CONSULTED 12
Summary of Methods and Results 12
Summary of Additional Research 15
Summary of Native American Consultation 15
Summary of Consultation with Local Communities 16
BACKGROUND 16
Environment 16
Ethnography 18
Prehistory 20
History 21
FIELD METHODS 25
STUDY FINDINGS AND CONCLUSIONS 36
REFERENCES 36

LIST OF FIGURES

Figure 1. Start of Segment O at North-Fork of Coyote Creek Channel (View to the Northwest). 27
Figure 2. West Channel Embankment Between the North Fork and Valley View Avenue Bridge (View to the Northeast). 27
Figure 3. Coyote Creek Channel Embankment Between Valley View Avenue and Artesia Boulevard (View to the East). 28
Figure 4. Artesia Boulevard Bridge (View to the East). 28
Figure 5. Homeless Encampment Under Artesia Boulevard Bridge (View to the West). 29
Figure 6. Oil Pipeline and Railroad Bridge Over the Channel in Segment P (View to the Northeast). 29
Figure 7. Railroad Bridge and Oil Pipeline Over Coyote Creek Channel (View to the Southeast) 30
Figure 8. Large Homeless Encampment at Railroad Bridge, South of S. Firestone Boulevard (View to the Northeast). 30
Figure 9. S. Firestone Boulevard Bridge Crossing the Channel (View to the Northeast). 31
Figure 10. Construction Work Along the Channel Between S. Firestone Blvd., the Santa Ana Freeway, and N. Firestone Blvd. (View to the Northeast). 31
Figure 11. West Channel Embankment with Commercial Buildings on Both Sides, North of the Santa Ana Freeway (View to the East). 32
Figure 12. Knott Avenue Bridge Over the Channel (View to the East). 32
Figure 13. Railroad Bridge over the Channel, East of Knott Avenue (View to the East) 33
Figure 14. Commercial Buildings on the West Side and Residential on the East Side of the Channel (View to the Northeast). 33

Figure 15. Railroad Bridge Over the Channel South of Stage Road (View to the Northeast). 34
Figure 16. Stage Road Bridge Over the Coyote Creek Channel (View to the Northeast). 34
Figure 17. Landscaping on Both Sides of the Channel Embankments with La Mirada Boulevard Bridge in Background (View to the Northeast).....35
Figure 18. Ornamental Landscaping Along Proposed Bike Trail Beside La Mirada Boulevard (View to the Southeast). 35

INTRODUCTION

This Archaeological Survey Report (ASR) is prepared for the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway Project in the cities of Cerritos, Buena Park and La Mirada (Federal Aid Project No. ATPL-5955(112)) (see HPSR Attachment A, Map 1). The survey was conducted in compliance with Section 106 of the National Historic Preservation Act, as implemented through federal regulations outlined in 36 CFR 800. All cultural resources investigations reported herein comply with the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as It Pertains to the Administration of the Federal-Aid Highway Program in California*.

The archaeological field survey was conducted on February 6, 2020, by Stephen O'Neil, principal investigator for this ASR. O'Neil earned a B.A. degree in anthropology from California State University, Long Beach, in 1979 and an M.A. degree in cultural anthropology from California State University, Fullerton, in 2002. He has over 35 years of experience as a cultural resource specialist in California.

In addition to the archaeological field survey, Stephen O'Neil also conducted the cultural resources records search, the geoarchaeological analysis, and consultation with Native American representatives with the assistance of project archaeologist Megan Black Doukakis (B.A., anthropology, California State University, Long Beach, 2011, and M.A., public archaeology, California State University, Northridge, 2018). Other components of the scope of the study included historical background research, carried out by project historian Terri Jacquemain (M.A., public history, University of California, Riverside, 2004) and consultation with local community representatives.

PROJECT LOCATION AND DESCRIPTION

The Orange County Department of Public Works, in cooperation with the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans), proposes to construct an asphalt bike path along the west bank of the Coyote Creek Channel starting at the confluence of the north and east forks of the channel at the south end in the city of Cerritos, north for 2.7 miles connecting to another portion of the Coyote Creek Bikeway at La Mirada Boulevard/Malvern Avenue in the cities of Buena Park and La Mirada. This undertaking will be conducted in a work area approximately 250 feet wide (east/west) and 2.7 miles long (north/south), closing a gap in the 66-mile regional bikeway corridor called the OC Loop that is located along the length of the Coyote Creek flood control channel upstream and downstream of the Santa Ana Freeway (I-5 Freeway). This gap is designated as Segments O, P, and Q (Federal Project No. ATPL-5955(112)). The undertaking is located in the cities of Cerritos, Buena Park, and La Mirada in Orange County and Los Angeles County within Caltrans District 12 (see Attachment A, Maps 1-3) (approved and signed November 16, 2020).

Project Location and Context

OC Loop Segments O, P, and Q Coyote Creek Bikeway Project (proposed project) involves the construction of a 2.7-mile Class I Bikeway along the Coyote Creek storm drain channel in the City of Cerritos on the south, through the City of La Mirada, to the City of Buena Park to the north. The 2.7-mile Class I Bikeway is a component of a 66-mile regional bikeway corridor called the OC Loop. The proposed project would be located along the northwest Orange County/southwest Los Angeles County border.

The proposed project would, at its southern terminus, begin at the existing Coyote Creek Bikeway (in the City of Cerritos) at the confluence of the north and east forks of the Coyote Creek Flood Control Channel. The alignment of the proposed project trends in a northeast direction for approximately 2.7 miles, where it connects to Segment R of the Coyote Creek Bikeway at La Mirada Boulevard in the City of Buena Park.

Project Objectives

Areas along the OC Loop corridor that are open for bicycle traffic are in poor condition and the bikeway surface is not marked clearly. Bicycle traffic at the junction of the Coyote Creek Bikeway and the San Gabriel River Bikeway does not continue along the Coyote Creek Bikeway (Stantec Consulting Services Inc., 2015, p. 40). In some areas, the bikeway is improved on one bank, while in other areas it is improved on both sides. Bicyclists can find themselves at the end of a bikeway facing a heavily used arterial highway with a high speed limit. In addition, there may be no traffic signals to facilitate crossing, a raised median may prohibit crossing, and no suitable way to use the roadway bridge to ride across the creek to reach the bikeway on the opposite bank (Stantec Consulting Services Inc., 2015, pp. 40-41).

Once constructed, the proposed project would close an existing bikeway gap along the OC Loop with a Class I bikeway/path physically separated from vehicular traffic. As an alternative mode of transportation, the proposed project would also increase the use of active transportation travel modes, enhance safety and mobility for non-motorized users, advance efforts to achieve greenhouse gas reduction goals, improve access and maintenance to the flood control channel, and enhance public health. In addition, the proposed project is a safety and mobility enhancement for the County of Orange, and is included in the 2008 Coyote Creek Bikeway Master Plan (Rivers and Mountains Conservancy and Trails4All), 2009 OCTA Commuter Bikeway Strategic Plan, 2012 OCTA/County of Orange Fourth District Bikeways Strategy Report, 2014 County of Orange General Plan Transportation Element (as part of the Orange County Seven-Year Plan), and the 2015 OC Loop Gap Feasibility Study (OC Parks).

The proposed project has the following objectives:

- To further establish the OC Loop as a significant regional recreational and alternative transportation facility resource.
- To facilitate increases in the public's use of active transportation travel modes.
- To enhance the safety and mobility for non-motorized users.
- To advance efforts to achieve greenhouse gas reduction goals.
- To improve the maintenance of, and access to, the flood control channel.

- To enhance public health via the facilitation of increased public use of active transportation travel modes.
- To serve as a viable contributor to County policies and physical improvements designed to promote safety and mobility enhancement.
- To accurately serve its stated purpose in various adopted County/OCTA policy and planning documents including the 2008 Coyote Creek Bikeway Master Plan (Rivers and Mountains Conservancy and Trails4All), 2009 OCTA Commuter Bikeway Strategic Plan, 2012 OCTA/County of Orange Fourth District Bikeways Strategy Report, 2014 County of Orange General Plan, and the 2015 OC Loop Gap Feasibility Study.

Project Characteristics

The proposed project is divided into three Segments (O, P, and Q) of the overall OC Loop (see HPSR Attachment A, Map 3.) From south to north, OC Loop Segment O extends northeasterly from the point of origin near the north fork of the Coyote Creek flood control channel to Artesia Boulevard. OC Loop Segment P extends northerly from Artesia Boulevard to Knott Avenue, while OC Loop Segment Q extends northerly from Knott Avenue to the terminus of the proposed project at La Mirada Boulevard.

Following are summary descriptions of the main improvements planned as part of the proposed project, presented on a segment-by-segment basis. A number of utility crossings would be necessary to accommodate the proposed project. Existing flood control maintenance road ramps from the flood control channel to existing roadways would be improved for bicycle access as well. Chain link or wire fencing would be provided where safety dictates, on one or both sides of the bikeway.

Summary of Segment O Improvements

Location

Segment O is the southernmost portion of the project area and is located within the cities of Cerritos and Buena Park. Segment O begins at the existing Coyote Creek Bikeway at the confluence of the channel's east and north forks. The segment runs east-northeast for approximately 4,800 feet, or 0.91 mile, along the east fork of the Coyote Creek Channel to Artesia Boulevard.

Pedestrian/Cyclist Bridge

At Station 10+00, at the confluence of the north and east forks of the flood control channel, a 200-foot-long and 12-foot-wide pre-fabricated truss bridge would be installed across Coyote Creek at the north fork. Approximately four 18-wheeled flatbed trucks would deliver the bridge in several sections and workers would bolt the bridge together onsite. The pre-fabricated bridge would be bolted together on the floor of the concrete flood control channel. It is estimated to take about two days to assemble the bridge onsite. Reinforced concrete end bents would be constructed (cast in place) prior to delivery of the bridge. The bridge would be lifted and placed on the end bents by two large cranes. Only pedestrians and cyclists would use the bridge, as it would not be rated for the weight of motor vehicles. The bridge would be steel and designed to have a rust patina ("weathered steel" look), to eliminate the need for future painting. The deck of the pedestrian bridge would be wood.

Approximately 1,570 linear feet of 12- to 16-foot-wide asphalt would be placed upstream of the pre-fabricated bridge to Valley View Avenue. About 1,750 cubic feet of asphaltic concrete used for the existing maintenance road would be removed and recycled before any new asphalt paving would be placed. The new asphalt would be approximately four inches thick over six inches of crushed aggregate base. Fencing, such as a five-foot-high chain link fence or four-foot tall cable fence with six strands of cable may be installed on one or both sides. The fencing may be installed along the entire 2.7 miles of new bike trail if necessary. The location of the fencing (either on one or both sides of the bike trail) would be determined later in the design process.

Valley View Avenue Undercrossing

The next feature of Segment O would be an undercrossing of Valley View Avenue that would be constructed into the side of the existing sloped bank of the concrete flood control channel. The existing concrete slope under the Valley View Bridge would be removed and steepened to near vertical to accommodate the new 12-foot-wide trail undercrossing. A tieback wall would be installed under the bridge and the construction would be located above the existing outfalls. Upstream of the Valley View undercrossing to Artesia Boulevard, approximately 3,010 feet of 14- to 16- foot-wide asphalt paving would be placed adjacent to the flood control channel.

Artesia Boulevard Ramp

The bikeway ramp up to the south side of Artesia Blvd would generally follow the existing maintenance access road.

Summary of Segment P Improvements

Location

Segment P is located generally within the City of La Mirada in Los Angeles County and runs parallel to the north side of the Coyote Creek channel from the Artesia Boulevard undercrossing to Knott Avenue. It is approximately 3,000 feet long (equivalent to 0.57 mile) and crosses under the Interstate 5 (I-5) freeway, its frontage roads (South and North Firestone Boulevard), and the Union Pacific Railroad (UPRR) industrial lead. It includes 1,085 linear feet of new 14- to 16-foot-wide asphalt trail.

Undercrossing at Artesia Boulevard

Segment P begins at the Artesia Boulevard undercrossing, where there is currently a six-foot-wide strip of exposed dirt under the bridge between the bridge abutment and the vertical wall of the flood control channel. Several concrete columns would be installed into the six-foot-wide strip of exposed soil between the bridge abutment wall and the concrete channel wall. The concrete columns would support a 13-foot-wide concrete deck, six to seven feet of which will cantilever over the flood control channel. Approximately two to three feet of the top of the concrete flood control wall would be removed to ensure that there would be sufficient vertical clearance between the new bike trail and the bridge soffit. The existing concrete bridge abutment wall will act as the new flood control wall. Upstream from the Artesia Boulevard undercrossing would be about 1,200 feet of new 12- to 16-foot-wide asphalt paving.

Union Pacific Railroad Box Jack (Concrete Box) Underground Tunnel or Overcrossing

The next feature in Segment P would be a 120-foot-long box jack of a reinforced concrete box culvert underground tunnel under the UPRR railroad line. The box jacking operation would take two months and involve jacking a linear 134-feet-long, 12-foot-wide and 10-foot-tall precast reinforced concrete box. There would be 7.5 feet of earthen cover between the top of the box and the railroad tracks.

Upstream from the UPRR undercrossing to the South Firestone Boulevard undercrossing, the bikeway elevation remains below the top of the channel. Between the UPRR crossing and South Firestone Boulevard would be an open concrete U-channel to contain the new trail. The vertical U-channel walls would vary from 0 feet to about 13 feet high. This channel would slope down into the tunnel, with the wall height increasing as the depth increases, and then would slope upwards as it leaves the tunnel, with its walls decreasing in height. One method to construct this depressed cross-section is to make use of the existing channel wall and then excavate away from it toward the right-of-way line. A wall would then be needed on the opposite side to support the below-grade bikeway. It is anticipated that this wall's height most likely cannot be supported without ground anchors (or tiebacks) that extend beyond the right-of-way line. Therefore, a top-down wall without tiebacks could be constructed (such as a secant or tangent pile wall). Another method is to use shoring to excavate the "u-shape" then construct a "U-wall" similar to what is done for creek channels.

On the downstream side of this crossing are two abandoned fuel lines, a U.S. Navy jet fuel line and a Kinder Morgan oil pipeline. The project would cut, cap and remove the Kinder Morgan fuel pipeline and the Navy jet fuel line.

UPRR has preliminarily indicated they may not be able to support an underpass of their tracks by policy. Therefore, a 1,200-foot-long, 35-foot-high pedestrian/cyclist truss bridge over the UPRR tracks has been included as an alternative to the underpass. However, the slope on the northeast end of the bridge would reach a minimum of 9.6% to allow for the south Firestone underpass entrance, which exceeds ADA standards and would be extremely difficult for cyclists.

South Firestone Boulevard Undercrossing

The project proposes an open cut of South Firestone Boulevard west of Coyote Creek and the installation of a 12-foot-wide by 9-foot-tall precast concrete box. The box under South Firestone Boulevard would be completed by closing the road for approximately three weeks. A detour can be provided for each direction since South Firestone Boulevard has access on both ends. There are no residences within 2,400 feet of this site (the nearest residence is approximately 2,400 feet east of the site at the westerly end of the Kensington Drive cul-de-sac). After the concrete box has been installed, it would be covered with road base and paved to its original elevation.

I-5 and North Firestone Boulevard Undercrossing

The 1-5 and North Firestone Boulevard undercrossing would be located upstream, northeast, of South Firestone Boulevard in the city of La Mirada. The I-5 Widening Project, which is separate from the proposed project, provides sufficient width for the tunnel between two bridge abutments at both the I-5 and North Firestone Boulevard. This section under the 1-5 and North Firestone

Boulevard would need to be excavated to accommodate the proposed 12-foot-wide bike trail. Upstream of the l-5 and North Firestone Boulevard, the trail would continue adjacent to the top of the flood control channel. Approximately 1,550 linear feet of 14- to 16-foot wide asphalt trail would be placed between North Firestone Boulevard and Knott Avenue.

Summary of Segment Q Improvements

Location

Segment Q begins in the city of Buena Park, extends northwest into the city of La Mirada and ends in the city of Buena Park. More specifically, Segment Q extends from Knott Avenue to Stage Road and ends at La Mirada Boulevard in Buena Park and is approximately one mile long. It crosses a Burlington Northern Santa Fe Railway Company (BNSF) industrial lead, the heavily used Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor, and Stage Road before ending at La Mirada Boulevard.

Knott Avenue at-Grade Crossing

The first component of Segment Q would be a signalized at-grade crossing at Knott Avenue. Traffic signals with push-button activation and crosswalk striping would be installed. Approximately 420 linear feet of 12- to 14-foot-wide asphalt trail would be installed upstream of Knott Avenue.

At-Grade Crossing of BNSF Railway Lead

Additionally, upstream of Knott Avenue (downstream of the confluence of Coyote Creek and Brea Creek) would be an at-grade crossing of a railroad industrial lead that serves only a few customers. BNSF is evaluating if this lead can be closed to the north of this crossing. If not closed, then because of the low volume, the California Public Utilities Commission and BNSF will not require warning signals; rather, zigzag fencing will be constructed on both sides so bicyclists are made to look in both directions before crossing. Upstream of this railroad crossing would be approximately 2,900 feet of 14- to 16-foot-wide new asphalt pavement along the Coyote Creek flood control channel.

Undercrossing of the BNSF/Metrolink Railway Line

The next feature in Segment Q would be a 144-foot-long bore and jack of a reinforced concrete box culvert tunnel under an existing BNSF and Metrolink railway bridge, which carries three tracks as well as a railroad turnout (i.e., railroad switch). It is anticipated that the bridge will be widened for a fourth railroad track in a couple of years. The box jacking operation would take two months and involve jacking a linear 144 feet long, 12-foot-wide and 10-foot-tall precast reinforced concrete box. There would be 7.5 feet of earthen cover between the top of the box and the railroad tracks.

Various utility lines are located in this area. On the downstream side of the existing bridge there is a Chevron fuel line. On the upstream side of the bridge are telecommunication lines in a concrete box girder conduit, but the fuel line and the telecommunication lines would not be in conflict with the proposed tunnel because they are above ground rather than underground. The project would cut, cap and remove the Chevron Oil fuel pipeline. A conflict with utilities would be avoided by relocating

the abandoned Chevron Oil fuel line and going under the AT&T conduit (which is supported above ground).

A vacant triangular 0.5-acre parcel owned by the Los Angeles County Flood Control District is located on the downstream side of the Metrolink line and could be used for construction staging.

Upstream of the BNSF/Metrolink Undercrossing

Upstream of the box section, between the BNSF/Metrolink undercrossing and Stage Road, would be an open U-channel to contain the new trail. The vertical U channel walls would vary from 0 feet to about 13 feet high. This portion of the trail would provide safe passage for pedestrian and bicyclists from the BNSF Metrolink undercrossing to the at-grade crossing of Stage Road described below.

At-Grade Crossing of Stage Road

The next feature in Segment Q would be an at-grade crossing of Stage Road in Buena Park. The fully signalized intersection would be located at McComber Road approximately 500 feet west of the channel. A typical fully functional "T intersection" traffic signal and crosswalk would be installed. This option would involve restriping the existing roadway to allow for a 12-foot-wide, barrier-separated, bike path on both sides of Stage Road between McComber Road and Coyote Creek. A Class IV bikeway would be located between McComber and the Stage Road crossing and Class II striping transition would be located along Stage Road to the east of Coyote Creek and along Stage Road to the west of the intersection of McComber Road and Stage Road, as follows: restriping Class II bikeways would occur along Stage Road between Beach Boulevard to the east and approximately 300 feet west of the intersection of McComber Road and Stage Road. Additionally, new curb ramps would be installed at McComber Road and at Coyote Creek.

Pedestrian/Cyclist Bridge North of Stage Road Crossing Coyote Creek

Upstream from Stage Road would be about 560 feet of new 12- to 16-foot-wide asphalt paving along the right bank of Coyote Creek. To meet up with the already constructed OC Loop Segment R on the other side of the channel, a pre-fabricated truss bridge, similar to the one being installed at the beginning of the project but much shorter, would be installed across Coyote Creek. The bridge would be approximately 50 feet long, no more than about five to eight feet high, and 12 feet wide. Installation of the bridge would be completed in one day by using a large crane. Prior to the arrival of the bridge, the reinforced concrete bridge abutments would be formed and poured. Upstream from the pedestrian bridge would be 640 feet of new 12- to 16-foot-wide asphalt paving along the left bank of Coyote Creek.

La Mirada Boulevard Detour

The new and existing bike trail would be connected by directing cyclists onto La Mirada Boulevard and constructing a new 12-foot wide asphalt Class I trail on both sides of La Mirada Boulevard for a distance of 280 feet (on each side) where bicyclists could cross via an existing signalized intersection at the entrance of the Los Coyotes Shopping Center. Several ornamental trees would be removed and minor grading would be conducted to install the new Class I trail. The existing sidewalks for this 280-foot reach of La Mirada Boulevard would be included in the Class I trail.

Improvements at La Mirada Boulevard/Malvern Avenue

Along the north side and south side of La Mirada Boulevard between the Coyote Creek Channel and the shopping center driveway at Village Circle Way, the contractor will "clear & grub" from the back of curb to the privacy wall on the north side and from the back/curb to the retaining wall along the south side. Any surface-evident utilities will remain in place and a 10-foot-wide combined pedestrian/Class I bikeway would be constructed on both sides. Approximately 19 feet (or less) of permanent easement is required.

Landscaping

Other than an existing 280-foot-long by about 20-foot-wide strip of landscaping on both sides of La Mirada Boulevard, no other existing landscaping would be removed. No new or replacement landscaping is proposed as part of this project. Signage and maps would be installed along the trail to direct users.

Stormwater

A Water Quality Management Plan (WQMP) that may include constructed stormwater quality enhancements will be prepared as a part of this project. The project would add impervious area. Storm drain pipes would be placed at the lowest elevation of undercrossings to allow storm water to drain into the adjacent channel. Bioswales for water quality treatment would be employed at the downstream sides of both railroad undercrossings.

Lighting

Other than for about 200 feet of bikeway under North and South Firestone Boulevard and the I-5, the project does not propose any trail lighting. Additionally, light would be produced from signals (such as traffic signals) along the project alignment.

Signage

Only standard and minimal bike signage and location maps conforming to OC Parks signage codes and criteria are required.

Bike Path

Where the bike path is at grade, the path would be asphalt and be 14 to 16 feet wide inclusive of the two-foot shoulders on each side, wherever a chain link fence or cable railing is added for safety. Where the bike path would travel beneath grade, the bike path surface would be concrete and 10 to 14 feet wide with no shoulders.

Project Construction

Construction is anticipated to take between 18 months and two years and occur sometime between January 2023 and December 2024. Construction would occur in one stage. Construction workers would be able to park within the Coyote Creek right-of-way via the street crossings (Valley View,

Artesia, Firestone, Stage Road). South Firestone Boulevard would be closed for approximately three weeks to install the precast box culvert for the bikeway.

Depending upon funding, project construction would occur in one, two or three phases; for example, the three segments (O, P, and Q) could be done one at a time. The project includes three contiguous gap closure segments; O, P, and Q. Because of the significant cost of the project overall and the need for state/federal grant funds to move forward, it is possible that grant funds will come in separate years for separate segments. The State has indicated that the County should simultaneously submit grant requests for the entire project and for each of the three segments separately for their next grant cycle. Therefore, the project may be done in two or three phases in different fiscal years, depending upon annual grant funding cycles. In general, construction phases could include:

- Demolition.
- Grading and excavation.
- Installing prefabricated bridges, walls and box jacking under both railroads.
- Placing concrete and asphalt.
- Final items (striping, signage, etc.).

It is anticipated that an average of about 20 construction employees would be onsite over 24 months.

Several utilities would be protected in place and the abandoned fuel lines mentioned previously on the downstream sides of the two railroad undercrossings would be cut, capped and removed. A power pole in the northwest quadrant at South Firestone Boulevard would require relocating. This pole supports a Southern California Edison power line and communications lines that would require relocating.

Construction Equipment

Proposed equipment anticipated to be used during project construction includes, but is not limited to, the following:

- Grading equipment for preparing the bike path for paving.
- Excavation equipment (concrete saws, bulldozers, excavators, dump trucks) for going under Valley View Avenue, Artesia Boulevard, North and South Firestone Boulevard, and the I-5.
- Drilling rigs for end bents for the pedestrian bridge over the north fork of Coyote Creek, the tieback wall at Valley View Avenue, the piles for the bike path foundation slab under Artesia Boulevard and the temporary shoring walls at both railroad undercrossings.
- Box-jacking equipment in pits for jacking the RCB under the two railroad corridors.
- Flatbed trucks and cranes for installing the steel prefabricated pedestrian bridges.
- Asphalt paving equipment for installing the bike path surface where the bikeway is at grade.
- Concrete trucks for pouring the end bents for the pedestrian bridge over the north fork of Coyote Creek, and concrete walls on either side of the railroad undercrossings.
- Two cranes to install the two prefabricated bridges, with a period of use of approximately two weeks for each bridge.

Construction Staging

Construction staging would involve detouring traffic for the closure of South Firestone Boulevard for installation of the RCB. Additionally, a vacant triangular 0.5-acre parcel owned by the Los Angeles County Flood Control District is located on the downstream side of the Metrolink line and could be used for construction staging.

Easements

The project would include the following permanent easements:

- Along the north side and south side of La Mirada Boulevard between the Coyote Creek Channel and the shopping center driveway at Village Circle Way, the contractor will "clear & grub" from the back of curb to the privacy wall on the north side and from the back/curb to the retaining wall along the south side. Any surface-evident utilities will remain in place and a 10-foot-wide combined pedestrian/Class I bikeway would be constructed on both sides. Approximately 19 feet (or less) of permanent easement is required.

- A permanent driveway easement for access to the Flood Control Channel at Trojan Way may be required. The Los Angeles County Flood Control District maintenance access driveway that Caltrans constructed needs to be reconnected after the bike path is constructed. However, because of the difference in grade between the access driveway and the proposed bikeway, this reconstructed driveway may be as steep as 15 percent. Therefore, if the grade cannot be achieved, then a permanent access easement would need to be obtained from the property owner so that the Los Angeles Flood Control District could use the property owner's driveway to access the flood control channel when needed.

Discretionary Actions

Discretionary actions required for the implementation of the proposed project are provided in the table below.

Federal	
Agency	**Required Permit and/or Agreements**
U.S. Army Corps of Engineers (USACE)	• 408 Authorization to Alter a "Civil Works" project • 404 Dredge and Fill permit
State	
Agency	**Required Permit and/or Agreements**
Caltrans	• Construction and Encroachment permit
California Department of Fish and Wildlife (CDFW)	• 1602 Streambed Alteration Agreement
California Public Utilities Commission (CPUC)	• Approval of GO-88b permits at all three railroad crossings
Metrolink/Southern California Regional Rail Authority (SCRRA)	• Plan specification and estimate (PS&E) review and approval
State Water Resources Control Board (SWRCB)	• 401 Water Quality Certification

Regional	
Agency	**Required Permit and/or Agreements**
Los Angeles County Flood Control District (LACFCD)	• Construction and Encroachment permit
Orange County Flood Control District (OCFD)	• Construction and Encroachment permit
Los Angeles Regional Water Quality Control Board (LARWQCB)	• 401 Water Quality Certification
Santa Ana Regional Water Quality Control Board (SARWQCB)	• 401 Water Quality Certification
Local	
Agency	**Required Permit and/or Agreements**
Orange County Public Works	• Construction permit
City of Cerritos	• Construction and Encroachment permit
City of Buena Park	• Construction and Encroachment permit
City of La Mirada	• Construction and Encroachment permit
Railroads and Utilities	
Agency	**Required Permit and/or Agreements**
Union Pacific (UP) Railroad and California Public Utilities Commission	• CPUC new grade crossing permits and Construction & Maintenance (C&M) Agreements
Burlington Northern and Santa Fe (BNSF) Railway and California Public Utilities Commission	• CPUC new grade crossing permits and Construction & Maintenance (C&M) Agreements • Plan specification and estimate (PS&E) review and approval
Chevron	• Agreement for Removal
Kinder-Morgan & U.S. Navy	• Agreement for Removal

Construction activities will be confined within the existing rights-of-way, and easement into the private lands in Segment Q to the north at La Mirada Boulevard (APN 066-601-64, 066-561-09 and 066-584-04) and to the south at Trojan Way (APN 700-101-4034 and 700-101-5017) (see HPSR Attachment A, Map 3), staging/storage area, temporary access, or borrow/disposal site will be required. The undertaking will not realign or widen any roadways. There will be tree removals along La Mirada Boulevard. The undertaking will not cause automobile traffic to be closer in proximity to nearby properties or increase automobile traffic volume.

The vertical extent of ground disturbance during the undertaking is not expected to exceed 18.5 feet in depth – excavation to 18.5 feet will be conducted for placement of concrete box culverts at the UPRR and BNSF railroad crossings, while excavation for placement of fence poles and wall foundations will not exceed two feet. There will be above-ground utility infrastructure removals, in the form of abandoned fuel lines that cross the Channel, would be cut, capped and removed, and a power pole in the northwest quadrant at South Firestone Boulevard would require relocating.

The Area of Potential Effects (APE) project area comprises approximately 26.17 acres in total, including two parcels of privately-owned commercial and industrial properties adjacent to the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway rights-of-way (see HPSR Attachment A, Map 3). The Study Area for this ASR covered the 0.654 acre that will be subject to ground disturbances during the new bike trail construction, which lies within the existing rights-of-way and two private parcels for the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway (see HPSR Attachment A, Map 3).

The OC Loop Segments O, P, and Q Coyote Creek Bikeway Project is located in an urban mixed industrial, commercial and low-density residential setting in the cities of Buena Park La Mirada, and Cerritos within a portion of the Los Coyotes land grant in what would be Sections 26, 27, 33 and 34 of T3S R11W, San Bernardino Baseline and Meridian on the *La Habra*, *Los Alamitos* and *Whittier, Calif*. USGS quadrangle topographic maps (see HPSR Attachment A, Maps 1 and 2). The entire Study Area for the ASR consists of extensively disturbed public rights-of-way, and is mostly exposed soil with a deteriorated asphalt access road. Land use along the OC Loop Segments O, P, and Q Coyote Creek Bikeway features a mixture of commercial, light industry and some residential (see HPSR Attachment A, Map 3).

SOURCES CONSULTED

SUMMARY OF METHODS AND RESULTS

A cultural resource records search was conducted on February 18, 2020, at the South Central Coastal Information Center (SCCIC), California State University, Fullerton, to assess the extent of previous survey coverage and identify known historical/archaeological resources in the vicinity of the APE. A standard half-mile radius was adopted for the records search, and the following sources were consulted:

- National Register of Historic Places;
- California Register of Historical Resources;
- California Historical Landmarks;
- California Points of Historical Interests;
- California Historical Resources Inventory.

The results of the records search indicate that within a half-mile radius of the APE indicated that four cultural resources have been recorded. Within the half-mile buffer zone, there have been four recorded historic-era cultural resources, one of which includes possible paleontological resources. Table 1 summarizes the resources found within the half-mile buffer zone and within the project site boundary.

Within the half-mile buffer zone surround the APE there is the KFI Transmitter Building (19-187549). The transmitted building was constructed in 1931 which housed the original 50-kilowatt transmitter (an RCA 50B) which serve until 1959 when a new transmitter was installed (a Continental 317B) was installed (Hudlow 2006). The transmitted building is a two-story, flat roofed, rectangular building with access via a one-story round turret in the northwest corner. The KFI Transmitter Building is located 375 feet north of the Coyote Creek Channel. Also, within the buffer zone abut outside the APE is the site of two privies and historic trash pits associated with the Northam Railroad Station (30-120020). The site record states that the "remains extend in time from the late 1800's to 1962" (anon., n.d.), presumably when the station was removed. Current aerial photos indicate there is no longer a structure at the mapped location along Tulare Street which is now a housing development. The site of the historic privies is located approximately 1,050 feet southeast of the Coyote Creek Channel.

Within the APE there are two historic cultural resources, segments of the Union Pacific Railroad (also known as the Southern Pacific Railroad) and the Burlington Northern Santa Fe (BNSF)

Railway (formerly the Atchison, Topeka and Santa Fe). These segments run southeast to northwest across the Los Angeles and Orange County border, resulting in both a Los Angeles and Orange County site number. The project site is located along the border with the Union Pacific Railroad (19-186110/30-176630) intersecting Segment P and the Burlington Northern Santa Fe Railway (19-186804/30-176663) intersecting Segment Q (Ashkar, 1999; Ballester and Tang, 2002).

The Union Pacific Railroad site (19-186110/30-176630) intersects Segment P in Los Angeles County. This segment of the Union Pacific Railroad was evaluated and determined to be eligible for the National Register of Historic Places (NRHP) listing under Criteria A and B (Ashkar 1999:2). It was not formally assessed for eligibility under the California Register of Historical Resources (CRHR) (Ashkar, 1999).

The Burlington Northern Santa Fe Railway (19-186804/30-176663) intersects Segment Q in Orange County. This segment of the BNSF Railroad was evaluated for the NRHP and the CRHR and determined to not meet the criteria to qualify due to loss of historical integrity (Ballester and Tang 2002:3).

As a part of this HPSR study, a portion of the Coyote Creek Channel was recorded as an historic site; it was evaluated for the NRHP and was found to be not eligible – see the accompanying Historic Resources Evaluation Report Attachment D.

Table 1. Previously Recorded Cultural Resources within the Scope of the Records Search

Resource Number	Author/Date Recorded	Resource Description/Proximity to the Project Location
19-186110/30-176630	S. Ashkar	Segment of the Union Pacific Railroad.
19-186804/30-176663	Daniel Ballester and Bai "Tom" Tang	Segment of the Burlington Northern Santa Fe Railway
19-187549	Scott M. Hudlow	Historic two-story KFI transmitter building.
30-120020	Unknown	Two privies, historic trash pits, and possible segments of the La Habra fossil bearing soil.

Within a half-mile radius of the Study Area, SCCIC records indicated 20 cultural resources studies within a half-mile buffer of the project site (Table 2). Ten of these studies are located outside of the project boundary while ten of them, LA-07871/OR-03298, LA-03356/OR-00814, LA-07844/OR-03276, LA-08255/OR-03373, and LA-04834/OR-02094, intersected the project site itself. The ten studies within the project site concerned potential placement of wireless facilities, Metrolink improvements, or I-5 Santa Ana Freeway improvements and had linear study areas. These study areas intersect Segments P and Q along the Los Angeles County and Orange County border, resulting in both Los Angeles County and Orange County report numbers for each study.

Table 2. Previous Cultural Resources Studies within the Scope of the Records Search

Report Number	Author/Date	Report Title
LA-03356/OR-00814	Romani, John F.; 1982	Archaeological Survey Report for the Route I-5 Santa Ana Transportation Corridor Route 405 in Orange County to Route 605 in Los Angeles County P.m. 21.30/44.38 0.00/6.385

Table 2. Previous Cultural Resources Studies within the Scope of the Records Search		
Report Number	**Author/Date**	**Report Title**
LA-03371	Maki, Mary K.; 1996	Negative Phase I Archaeological Survey of 3.4 Acres West of Trojan Way Street from Desman Road to Firestone Boulevard, City of La Mirada, Los Angeles County, California
LA-04152	Mason, Roger D. and Wayne H. Bonner; 1998	Cultural Resources Records Search and Survey Report for a Pacific Bell Mobile Services Telecommunications Facility: La-316-03 City of La Mirada, California
LA-04834/OR-02094	Ashkar, Shahira; 1999	Cultural Resources Inventory Report for Williams Communications, Inc. Proposed Fiber Optic Cable System Installation Project, Los Angeles to Anaheim, Los Angeles and Orange Counties
LA-05199	Duke, Curt; 2001	Cultural Resource Assessment Cingular Wireless Facility No. Sm 083-02 Los Angeles County, Ca
LA-06174	Duke, Curt;2001	Cultural Resource Assessment Cingular Wireless Facility No. Sm 083-02 Los Angeles County, Ca
LA-07730	Hudlow, Scott M.; 2006	A Phase I Cultural Resources Survey for KFI Tower Project, City of La Mirada, California
LA-07844/OR-03276	Kane, Diane; 1998	Historic Architectural Survey Report for I-5 HOV Lane Improvement Project
LA-07871/OR-03298	Tang, Bai "Tom" and Teresa Woodard; 2003	Historical Resource Compliance Report – Third Main Track and Grade Separation Project Hobart (mp 148.9) to Basta (mp 163.3), BNSF/Metrolink East-west Main Line Railroad Track, Vernon to Fullerton, Los Angeles and Orange Counties, California
LA-08255/OR-03373	Arrington, Cindy and Nancy Sikes; 2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and II
LA-09117	Bonner, Wayne H.; 2007	Cultural Resources Records Search and Site Visit Results for Royal Street Communications, LLC Candidate LA0858D (Messe, Inc.), 16404 Knott Avenue, La Mirada, Los Angeles County, California
LA-11498	Meyer, Donna; 2011	Section 106 Consultation for Installation of Communications Equipment for Integrated Public Alert and Warning System, La Mirada, Los Angeles County
OR-00121	Desautels, Roger J.; 1976	Archaeological Survey Report on a Parcel of Land Located in the City of La Palma, Orange County
OR-00424	Desautels, Roger J., 1979	Cultural Resources Report on an Archaeological, Historical and Paleontological Records Search and Survey of Approximately 3 Acres of Property Located in Buena Park, California
OR-01671	Mason, Roger D.; 1997	Cultural Resources Record Search and Literature Review Report for a Pacific Bell Mobile Services Telecommunications Facility Cm 085-04, in the City of La Palma, California
OR-02608	Duke, Curt; 2003	Cultural Resource Assessment Cingular Wireless Facility No. Cm 085-04 Orange County, California
OR-02609	Duke, Curt; 2003	Request for SHPO Review of FCC Undertaking 5600 Fresca Dr., La Palma, California
OR-02793	Bonner, Wayne H.; 2001	Records Search Results for Sprint PCS Facility OG54XC458A (Gordon Square Shopping Center), 5301 Beach Blvd., Buena Park, Orange County, California
OR-02806	Duke, Curt; 2002	Cultural Resource Assessment AT&T Wireless Services Facility No. 13018a Orange County, California
OR-03045	Demcak, Carol R; 2005.	Report of Archaeological Assessment for Beach Boulevard/Malvern Avenue Intersection Improvement, City of Buena Park, California

SUMMARY OF ADDITIONAL RESEARCH

In conjunction with the records search, a historical background review was conducted on the basis of published literature in local history, historic maps and aerial photographs, and flood control records of the Orange County Flood Control District. Through analysis of these materials, historical themes emerge and establish a context specific to the APE and vicinity that in turn can be placed within comprehensive generalizations in broader trends and events in the region, state, and nation.

Geoarchaeological analysis for this ASR was based on existing literature on surface geology and soil types in the vicinity and pertinent geological and soil maps. The purpose of the analysis was to assess the potential of the Study Area for the deposition and preservation of subsurface cultural deposits from the prehistoric period, which cannot be detected through a standard archaeological survey. Findings from the historical and geoarchaeological researches are incorporated into the discussion in the "Background" section below.

SUMMARY OF NATIVE AMERICAN CONSULTATION

On January 28, 2020, a written request was submitted to the State of California's Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File (see HPSR Attachment E). In response, the NAHC stated on February 11, 2020, that "A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative [emphasis in the original]," but recommended that local Native American groups be contacted for further information. For that purpose, the NAHC provided a referral list of potential contacts in the region (see HPSR Attachment E). Five local Native American representatives were subsequently contacted in writing and by telephone between February 17 and April 2, 2020. As of this report's preparation in November 2020, one tribal representative responded to the inquiry, and they did not provide specific information on any Native American cultural resources in the APE (see HPSR Attachment E).

On February 17, 2020, Mr. O'Neil mailed the letters with accompanying maps to all five tribal contacts, and also emailed identical letters and maps to each of the five tribal contacts for which email addresses were known, as well as sending facsimiles on February 17, 2020 to the two tribes with facsimile capability. There have been no responses to the letters and emails. Following up on the initial letter and email contacts, telephone calls were conducted on April 2, 2020, to complete the outreach process. These calls were to the five tribal contacts who had not responded to UEI mailing and email. Four telephone calls were placed with no answer and so messages were left describing the project and requesting a response. These were to Chairperson Sandonne Goad, Chairperson of the Gabrielino/Tongva Nation; Mr. Charles Alvarez of the Gabrieleno-Tongva Tribe; Chairperson Andrew Salas of the Gabrieleno Band of Mission Indians – Kizh Nation; and Chairperson Anthony Morales of the Gabrieleno/Tongva San Gabriel Band of Mission Indians. There have been no responses from these individuals.

During the telephone calls of April 2, 2020, Chairperson Robert Dorame of the Gabrielino Tongva Indians of California Tribal Council asked UltraSystems to resend the material to his email and if we do not receive a response then they have no concerns with the project; this was done the same day. There have been no further responses from this tribe to date (see HPSR Attachment E).

SUMMARY OF CONSULTATION WITH LOCAL COMMUNITIES

As a part of the research procedures, local historical/archaeological organizations and city government staff in each community along the APE were consulted regarding potential cultural resources of local significance in or near the APE (see HPSR Attachment F). In total, three cities and four local historical organizations were contacted by e-mail and telephone between April 21 and October 15, 2020. As of this report preparation in July 2020, no responses have been received. Those contacted include:

- City of Buena Park Planning Division Supervisor of Planning Brady Woods.
- City of La Mirada Director of Community Development Department Gabriel Bautista.
- Orange County Historical Society, which informs callers by voice message that due to COVID-19 the group has canceled or postponed all monthly meetings and events until further notice.
- Buena Park Historical Society. There has been no response to the e-mail sent or to voice messages left.
- Discover La Mirada/ La Mirada Community Foundation. City of La Mirada liaison for the Foundation, Latecia Raville, requested the e-mailed letter of inquiry be sent to her, which was done immediately after telephone contact. No further response has been received as of this report preparation in July 2020.
- Cerritos Public Library Local History Room. A voice message was left; however, the library's voice recording indicates the library is closed until May 15, 2020; no further response has been received as of this report preparation in July 2020,

BACKGROUND

ENVIRONMENT

The OC Loop Segments O, P, and Q Coyote Creek Bikeway project site is located in Orange County, California, in the southwestern portion of the Los Angeles Basin. The topographic region lies at the edge of the Los Angeles Basin, a broad plain covering more than 800 square miles that extends from the foothills of the San Gabriel Mountains south to the Pacific coast, and from Topanga Canyon southeast to the vicinity of Aliso Creek in central Orange County. Prior to historical settlement of the region, the basin was characterized by extensive inland prairies, wide marshy riparian lands along watercourses, and a lengthy coastal strand predominated by sandy beaches interrupted by the rocky Palos Verdes Peninsula. The Los Angeles plain is traversed by several large watercourses, most notably the Los Angeles, Rio Hondo, San Gabriel and Santa Ana Rivers. Coyote Creek flows between the San Gabriel River to the north and the Santa Ana River to the south for 13.7 miles, joining the San Gabriel River just 4.5 miles from the ocean. Marshlands fed by fresh water also once covered many portions of the area, while the coastline contained numerous estuaries with mixed fresh and salt water. West of Topanga Canyon the terrain is rugged; the steep, westward slopes of the Santa Monica Mountains reach 1,000 feet or more in elevation, except where stream-cut ravines and canyons drain into narrow beaches at the water's edge. From Topanga Canyon southward to the Palo Verdes Peninsula, a distance of roughly 22 miles, and the coast is flat and level. The terrain becomes rugged once again as the coast follows Palos Verdes Peninsula for a distance of approximately 12 miles before reaching San Pedro Bay, which in prehistoric times was characterized by extensive mud flats and sand bars. Continuing southward, the

coast is marked by several mesas fronted by sand beaches to Newport Bay, where the San Joaquin Hills reach the ocean; inland of here, a narrow extension of the Basin called the Tustin Plain terminates near Los Alisos Creek.

The elevation at the project area ranges from 50 feet (15.25 m) on the bank at the west end to approximately 95 feet (29 m) at the east end, with an elevation of 62 feet (19 m) in the middle at the Santa Ana Freeway (I-5). The project site is situated along Coyote Creek that generally flows westward from the Puente Hills across the plain as a tributary to the San Gabriel River.

The Project area is in a fully urbanized landscape. The project site includes both hardscaped and landscaped areas. Coyote Creek is a hardscaped flood control channel consisting of trapezoidal and box-shaped concrete lining. The proposed alignment is located within a fully urbanized area with commercial and light industry businesses in the south and central portions of the project area, as well as both single- and multi-family residences in the northern portion, The region is within the southern Los Angeles Basin and the project site was in flat floodplain of Coyote Creek, originally containing riparian, Coastal Sage Scrub and grasslands.

The region's environment is characterized by its temperate Mediterranean climate, with the average maximum temperature in July reaching 82° (Fahrenheit) and the average minimum temperature in January around 46º (with maximum high and lows of 93° and 39°). Rainfall is typically less than 13.5 inches annually, most of which occurs between November and March (Weather Spark, 2020).

The APE lies in a hardscaped flood control channel surrounded by commercial and light industry businesses in the south and central portions of the project area, as well as both single- and multi-family residences in the northern portion. All of the ASR Study Area has been extensively disturbed by construction and maintenance activities associated with the existing channel, flood control district access road, and street and rail road bridges. The terrain is level with very gentle sloping southward for the extent of the project segment, ranging from approximately 95 feet above mean sea level at the north end of Segment Q to 50 feet at the south end of Segment P over a length of 2.7 miles. There was no vegetation observed in the Study Area except a small patch of ornamental plants (Yucca and groundcover) across the flood control district wall and adjacent to a residence near the north end, and landscaping grass and ornamental trees along La Mirada Boulevard at the northern terminus of Segment Q. Animals observed included coyote (*Canis latrans*) scat and a statement from an employee of an adjacent commercial building that coyotes were frequently seen. There were also non-native fresh water bivalve and univalve shells present in small deposits of soil apparently dredged from the channel.

Geospatial analyses of known prehistoric sites in coastal Southern California suggest that longer-term residential settlements of the Native population were more likely to occur in sheltered areas along creeks and streams at the base of foothills and/or on elevated terraces, hills, and river confluences near permanent or reliable sources of water, while the level, unprotected plains and floodplains were used mainly for resource procurement, travel, and occasional camping during these activities. This is corroborated by the ethnographic literature that identifies foothills as preferred settlement environment for Native Americans of the Los Angeles Basin region (Bean and Smith, 1978; McCawley, 1996).

The southern portion of the project site, Segment O, is entirely encompassed by geological material of Young Alluvium, Unit 2 (Qya2) (Saucedo et al., 2016). This deposit consists of unconsolidated deposits of gravel, sand, and silt with some instances of boulders and dates to the early Holocene, 12,000 to 7,000 years before present (ybp) (Saucedo et al., 2016). The central portion of the project area, Segment P, is described as Young alluvial fan deposits (Qyf). The northern portion the project area, Segment Q, is underlain by Very Old alluvial fan deposits (Qvof) (Saucedo et al., 2016). This deposit consists of patches of well-indurated, brown, pebbly and cobbly, clay and dates to the middle to early Pleistocene (770,000 to 126,000 ybp). The soil covering the entirety of the project site is also described as younger Quaternary Alluvium. The northern portion of the project area, Segment O, has surficial deposits of older Quaternary Alluvium. Both soil types are "derived as alluvial fan deposits from the Puente Hills to the north via Coyote Creek that currently flows adjacent to almost all of the proposed project area" (McLeod 2020:1). These deposits do not typically contain significant vertebrate fossils in the very uppermost layers, but they may well contain significant fossil vertebrate remains at shallow depth. The far northern end of the project area has deposits of late Pleistocene La Habra Formation (McLeod, 2020:2). This deposit is found in Coyote Creek and at shallow depths in the project area.

The alluvial nature of the soils reflects the APE's location in an active drainage, specifically Coyote Creek, historically the source for periodic flooding. Because of this setting, the APE would not have been considered favorable for permanent or long-term habitation by the aboriginal population during prehistoric times, nor is this environment conducive to the preservation of archaeological remains. The vicinity may have hosted gathering camps and thus could contain some buried artifacts, but overall, the APE appears to be relatively low in sensitivity for intact, potentially significant prehistoric archaeological remains in subsurface deposits.

ETHNOGRAPHY

The project lies within the territory of the Gabrielino (Tongva) ethnolinguistic group (Bean and Smith, 1978:538), who speak a language classified as a member of the Uto-Aztecan language family. This language is further affiliated as an element of the Northern Takic Branch of that linguistic group (Golla, 2011:179).

The Gabrielino, with the Chumash, were considered the most populous, wealthiest, and therefore most powerful ethnic nationalities in aboriginal Southern California (Bean and Smith, 1978:538). Unfortunately, most Gabrielino cultural practices had declined before systematic ethnographic studies were instituted. Today, the leading sources on Gabrielino culture are Bean and Smith (1978), Johnson (1962), and McCawley (1996).

According to the recent research, Takic groups were not the first inhabitants of the region. Archaeologists suggest that a Takic in-migration may have occurred as early as 2,000 years ago, replacing or intermarrying with a more ancient indigenous people represented by speakers of a Hokan language (Howard and Raab, 1993; Porcasi, 1998). By the time of European contact, the Gabrielino territory included the southern Channel Islands and the Los Angeles Basin. Their territory reached east into the present-day San Bernardino-Riverside area and south to the San Joaquin Hills in central Orange County.

Different groups of Gabrielino adopted several subsistence strategies, based on gathering, hunting, and fishing. Because of the similarities to other Southern California tribes in economic activities, inland Gabrielino groups' industrial arts, exemplified by basket weaving, exhibited an affinity with those of their neighbors (Kroeber, 1925). Coastal Gabrielino material culture, on the other hand, reflected an elaborately developed artisanship most recognized through the medium of steatite, which was rivaled by few other groups in Southern California.

The intricacies of Gabrielino social organization are not well known. There appeared to have been at least three hierarchically ordered social classes, topped with an elite consisting of the chiefs, their immediate families, and other ceremonial specialists (Bean and Smith, 1978). Clans owned land, and property boundaries were marked by the clan's personalized symbol. Villages were politically autonomous, composed of non-localized lineages, each with its own leader. The dominant lineage's leader was usually the village chief, whose office was generally hereditary through the male line. Occasionally several villages were allied under the leadership of a single chief. The villages frequently engaged in warfare against one another, resulting in what some consider to be a state of constant enmity between coastal and inland groups.

The first Franciscan establishment in Gabrielino territory and the broader region was Mission San Gabriel, founded in A.D. 1772. Priests from the mission proselytized the Tongva throughout the Los Angeles Basin. As early as 1542, however, the Gabrielino were in peripheral contact with the Spanish during the historic expedition of Juan Rodríguez Cabrillo. However, it was not until 1769 that the Spaniards took steps to colonize the territory of aboriginal Californians. Within a few decades, most of the Gabrielino were incorporated into Mission San Gabriel and other missions in Southern California (Engelhardt, 1931). Due to introduced diseases, dietary deficiencies, and forceful *reduccion* (removal of non-agrarian Native populations to the mission compound), Gabrielino population dwindled rapidly from these impacts. By 1900, the Gabrielino community had almost ceased to exist as a culturally identifiable group. In the late 20th century, however, a renaissance of Native American activism and cultural revitalization of Gabrielino descendants took place. Among the results of this movement has been a return to a traditional name for the tribe, the Tongva, which is employed by several of the bands and organizations representing tribal members. Many of the Tongva bands focus on maintaining and teaching traditional knowledge, with special focus on language, place names and natural resources.

The Tongva community of *Povuu'nga* was situated about seven miles to the southwest along the San Gabriel River in what is now the City of Long Beach (McCawley, 1996:69-70), near what later became the headquarters of the Rancho Alamitos. This was a prominent village of the Tongva and a major trading center. *Povuu'nga* and the other surrounding villages later contributed converts to Missions San Gabriel and San Juan Capistrano. Chester King's map of Takic language speakers' settlements (2017) suggests that the Tongva village of *Jaysobit* was associated with the Rancho Los Coyotes, probably along Coyote Creek approximately one mile north of the project site. Residents of this village appear in both the Mission San Gabriel and Mission San Juan Capistrano baptismal registers (Merriam, 1968: 11, 116, 128, and 135) with a combined contribution of 99 neophytes; this number would have been a fraction of the population during the pre-Contact era. This portion of the Los Angeles Basin, with the nearby San Gabriel River and Coyote Creek, would have provided a rich set of both gathering and hunting resources used by the local indigenous communities. Native American settlement in the immediate area lasted well into the late 19th Century. Two "Indian Camps" are shown on the "Map of Part of Los Angeles County" prepared

around 1870 located "…along the present course of Coyote Creek northwest of the modern community of Buena Park" (McCawley, 1996:59). These two camps are also shown on the 1873 map of the Abel Sterns Rancho at approximately one half to a mile to the northwest and west of the project area (Baker, 1873). These were likely settlements for Tongva and other Southern California Indians who worked in the surrounding cattle and agricultural farms. To the northwest of the project site were *Chokiishnga* along the west bank of the San Gabriel River about five miles to the northwest in Santa Fe Springs, and the Native "community of *Huutgna* was also located in this [same] vicinity" (McCawley, 1996:58). In the Los Nietos area of Santa Fe Springs, about six miles to the north, was the village of *Naxaaw'nga* which "was lost long ago to a rampaging flood on the San Gabriel River" (McCawley, 1996:58), which demonstrates the wide meanderings of this river and extent of its floodplain. The Puente Hills would have provided a rich set of both gathering and hunting resources used by the surrounding indigenous communities.

PREHISTORY

Prehistoric material in this region has been categorized according to periods or patterns that define technological, economic, social and ideological elements. Within these periods, archaeologists have defined patterns or complexes specific to prehistory within the desert region, including the current project area. The period from the end of Horizon I to European contact was a time of complex and ongoing change in material culture, burial practices and subsistence focus. These changes most likely reflect both *in situ* cultural adaptations in response to shifts in environmental conditions, as well as influences from outside the area. The following summary of California's prehistoric period is adapted from Moratto (1984), Warren (1965) and Wallace (1978).

The prehistoric occupation of Southern California is divided chronologically into four temporal phases or horizons (Moratto, 1984). Horizon I, or the Early Man Horizon, began at the first appearance of people in the region (approximately 12,000 years ago), and continued until about 5000 B.C. Although little is known about these people, it is assumed that they were semi-nomadic and subsisted primarily on game.

Horizon II, also known as the Millingstone or Encinitas Tradition, began around 5000 B.C. and continued until about 1500 B.C. The Millingstone Horizon is characterized by widespread use of milling stones (manos and metates), core tools, a few projectile points, or bone and shell artifacts. This horizon appears to represent a diversification of subsistence activities and a more sedentary settlement pattern. Archaeological evidence suggests that hunting became less important, and that reliance on collecting shellfish and vegetal resources increased (Moratto 1984).

Horizon III, the Intermediate Horizon or Campbell Tradition, began around 1500 B.C. and continued until about A.D. 600-800. Horizon III is defined by a shift from the use of milling stones to increased use of mortar and pestle, possibly indicating a greater reliance on acorns as a food source. Projectile points become more abundant and, together with faunal remains, this indicates an increased use of both land and sea mammals (Moratto, 1984).

Horizon IV, the Late Horizon, which began around A.D. 600-800 and terminated with the arrival of Europeans, is characterized by dense populations; diversified hunting and gathering subsistence strategies, including intensive fishing and sea mammal hunting; extensive trade networks; use of bow and arrow; and a general cultural elaboration (*ibid*.). Also known as the Late Prehistoric, it is

locally identified with the introduction of pottery, and is marked by stronger regional differentiation. Such influence includes the major migration into Southern California of Takic-speaking people (Uto-Aztecan language group) from the Great Basin region (Warren, 1968).

HISTORY

Spanish/Mexican Era

The earliest known direct European involvement with the land that became Buena Park, La Mirada, and Cerritos occurred in 1784. It was then that Corporal Manuel Nieto, formerly a member of Don Gaspar de Portolá's 1769/70 expedition through Alta California, successfully petitioned the governor of Alta California, Captain Pedro Fages (the two had served together in the Portolá Expedition) for the right to graze on land that included the Buena Park, La Mirada, and Cerritos area (Strawther, 2012). The Nieto Tract consisted of all the lands between the San Gabriel and Santa Ana Rivers, and from the Whittier Hills to the Pacific Ocean (Bandy and Bandy, 1998:188); a full 300,000 acres for pasturage of his horses and cattle. The extent was protested by Mission San Gabriel and later reduced to a "mere" 167,000 acres, where he and his family lived, grew, built adobe haciendas through Spanish rule and into the Mexican republic. Following 1832, the Rancho Los Nietos was divided into five smaller ranchos and given to Nietos' heirs, each grant still ranging in tens of thousands of acres. The cities of Buena Park, La Mirada, and Cerritos sit on the portion that was carved out of what once was the Rancho Los Coyotes, which had been inherited by Juan Jose Nieto, the eldest son (Bandy and Bandy, 1998:192). Rancho Los Coyotes passed from Nieto ownership in 1840 to Juan Bautista Leandri, an Italian immigrant, and then on to subsequent owners and divided into farms during the American era. The modern towns of Cerritos, La Mirada, Stanton, and Buena Park occupy the lands that were the Rancho Los Coyotes, extending across the Los Angeles and Orange County border.

Mexico rebelled against Spain in 1810, and by 1821, Mexico, including its California province, achieved independence. The Mexican Republic began to grant private land to citizens to encourage emigration to California. Huge land grant ranchos took up large sections of land in California. Ranchos surrounded the mission lands in all directions. The Mission San Gabriel lands were used for the support of the mission and provided for the large population of Tongva Native Americans. The mission lands were held in trust for Native peoples by the Franciscan missionaries for eventual redistribution. The lands along the coast, however, were open for early settlement by the colonists from New Spain.

The Mexican-American War of 1846 saw the invasion of California from both land and sea. Following several skirmishes in the San Diego and Los Angeles areas, and the capture of the territorial capital in Monterey, the United States rule was firmly established. Following the rapid influx of population to the north because of the Gold Rush of 1849, California was made a state in 1850. The economic and social order was slow to change in the southern portion of the state, however, and rancheros were left in control of their vast estates through the 1860s. The Los Angeles region, which included the future Orange County area through the 19th century, was a part of the "Cow Counties" and had little representation in the state legislature because of the sparse population. This allowed the predominantly Anglo population of the north to pass laws aimed at breaking up the ranches for settlement by Eastern farmers and, coupled with devastating droughts that crippled many livestock raisers, their dismemberment soon came. This helped pave the way for

the “Boom of the Eighties” which saw an influx of people from the rest of the United States and the beginning of many of the towns we see today (Dumke, 1944). This was the first spurt of growth for Los Angeles, and smaller communities in the region started to form to the west, east, and the south such as Anaheim, Tustin, and Santa Ana, serving as residential and commercial centers for the surrounding farms and orchards on the plains. Portions of the remaining ranchos, especially in the hill terrain, remained used largely for cattle ranching.

The American Period to Founding of Buena Park, La Mirada, and Cerritos

The growth of communities in the southeastern part of Los Angeles County initiated a desire for a new county. In 1889, these communities formed Orange County, which included the area that became Buena Park. The areas that would become La Mirada and Cerritos remained part of Los Angeles County. Coyote Creek became the northwestern border for Orange County and southeastern border for Los Angeles County (Armor, 1921).

Buena Park

In 1860, Abel Stearns, a business man from Massachusetts, had acquired Rancho Los Coyotes along with Rancho La Habra, Rancho San Juan Cajón de Santa Ana, Rancho Las Bolsas, Rancho La Bolsa Chica, Rancho Jurupa and Rancho La Sierra (Buena Park History, 2020). Forming what was briefly known as “the Stearns Rancho,” these holdings were purchased with the plan to resell portions as large and small tracts to be turned into farms and subdivisions. James A. Whitaker, a wholesale grocer from Chicago, purchased 690 acres of the Stearns Rancho in 1887. Whitaker intended to create a cattle ranch, but Santa Fe Railway officials convinced him a better use of the land would be for a new town (Orange County.net, 2020). There are multiple stories of how Buena Park got its name. It was said that under the Los Coyotes adobe there was a “spring of good water and grass for animals. It has been called ‘Plaza Buena’ meaning ‘good place’ or ‘good park’.” (Chamberlin, 1971:7). The other possibility is that it is named after the eponymous Chicago suburb that the Whitaker family was from (Brigandi, 2006:13).

Buena Park originally gained recognition as a dairy center and the first industry in the city came with the opening of The Lily Creamery in 1889 (OrangeCounty.net, 2019). The Pacific Condensed Milk, Coffee and Canning Co. established the evaporated milk cannery here and it was the first in California (HMdb.org, 2020). The Bixby family owned and operated the factory from 1896 until it closed in 1907. Later the plant was used as a tomato cannery.

Much of the city’s financial and physical growth is attributed to the Knott Family. Walter and Cordelia Knott opened a 20-acre berry farm in 1920 and established a roadside stand to sell their produce along Beach Boulevard (VisitBuenaPark.com, 2020). As their business started growing, Cordelia opened a tea room where she served and sold jams and jellies. After hearing about a berry strain that was developed as a cross of blackberries, raspberries and loganberries, Walter Knott sought out the developer, Rudolph Boysen and his berry plants. Knott was able to plant a specimen (VisitBuenaPark.com, 2019) which did well, and he soon expanded the crop. Cordelia soon expanded her tea room by serving biscuits, fried chicken and boysenberry pies. As their popularity grew, Knott developed the Ghost Town with material from his uncle’s silver mill and part of the actual Calico ghost town that he acquired in 1951 (VisitBuenaPark.com, 2020). The city of Buena Park was incorporated in 1953 (OrangeCounty.net, 2020).

Cerritos

As in Buena Park, the area that would become the City of Cerritos focused on dairy farming through the late 19th century and into the early 20th century. Originally part of Artesia in Rancho Los Coyotes, Cerritos sought autonomy in the 1950s. On the southeastern side of Coyote Creek, the city that would become La Palma incorporated under the name Dairyland and Cypress incorporated under the name Dairy City. Following the trend of the area, the City of Cerritos incorporated under the name Dairy Valley in 1956 (Cenovich, 1995).

In the early 1960s, two large freeways were built through the area, Coyote Creek and the San Gabriel River were undergoing flood control construction, and some parts of the city were re-zoned for development. With this urbanization, many dairy farms were displaced, and the industry decreased. In 1967, the City of Dairy Valley changed its name to the City of Cerritos. Despite having been part of Rancho Los Coyotes, the city took its name from the nearby Cerritos College which, in turn, had taken its name from Rancho Los Cerritos (Cenovich, 1995).

La Mirada

In 1888, Andrew McNally, co-founder of the Rand McNally Publishing Company, purchased 2,300 acres from the Abel Stearns Rancho Trust in Los Angeles County and became the last private owner of Rancho Los Coyotes. McNally sold a few 20-acre parcels to ranchers while the rest of the land was used for the Windermere Ranch (City of La Mirada, 2020). In its heyday the Windermere Ranch had six hundred acres of olive trees and produced 15% of California's olive oil supply, and two hundred acres of lemon trees, as well as alfalfa, grapefruit, and oranges (Discover La Mirada, 2020).

The area continued to be used for ranches and agriculture until World War II. In 1953, then owner William "Bill" Neff sold 2,218 acres to the Pioneer Land and Realty Company of Los Angeles which rapidly constructed 7,800 residences on the land by 1956 (City of La Mirada, 2020). La Mirada was slated to be one of the nation's first pre-planned cities, and the post-war population boom of the 1950s brought families to these residences (Discover La Mirada, 2020).

The City of La Mirada was incorporated in 1960 under the name Mirada Hills. The city's name was converted to La Mirada after a proposition in the November 1960 elections passed (City of La Mirada, 2020). By this time, the population had grown to 19,455 residents and contained 7.9 square miles (Discover La Mirada, 2020).

Coyote Creek

Coyote Creek is a tributary of the San Gabriel River Watershed which receives drainage from Los Angeles County and originates in the San Gabriel Mountains (California Waterboards, 2020). Coyote Creek originates in the hills of La Habra and empties in Seal Beach. Before flood control infrastructure was installed, the project area was known for flooding, and Coyote Creek regularly overflowed into the Hawaiian Gardens area (Cenovich, 1995).

In 1915, California adopted the Los Angeles County Flood Control Act, establishing the Los Angeles County Flood Control District, after a disastrous regional flood in 1914. This act authorized the construction of flood control infrastructure throughout the county, much of which

finished construction in 1937, one year before another large flood in 1938 (LACDPW, 2020; KCET, 2020). A history of floods from the surrounding tributaries of Coyote Creek necessitated flood control infrastructure in the project area, which was built during the 1930s and into the 1960s. This included dams, reservoirs, and encasing the streams of the Coyote Creek watershed in concrete channels (Cenovich, 1995).

Project Site Land Use History

Historic aerial maps for the area, the earliest dating to 1952, show that the project site continued to be used for farming through the 1950s (NETROnline, 2020). Oil tanks are visible in the aerials from 1953 to 1972, and imprints from the tanks are visible in the 1994 aerial (NETROnline, 2020). The Santa Ana Branch of the Union Pacific Railroad and the San Diego Branch of the Burlington Northern Santa Fe Railroad can be seen in all available aerials (NETROnline, 2020). By 1963, the Interstate 5 (I-5) Freeway had been constructed, and Coyote Creek had been encased in a concrete channel (NETROnline, 2020). Although much of the surrounding land is still agricultural in the 1963 aerial, structures can be seen where the I-5 Freeway intersects Coyote Creek, and residential development is visible in the City of Buena Park (NETROnline, 2020). By 1972, the entire area had been developed for commercial and residential use (NETROnline, 2020).

Topographic maps are also available for the project area with the earliest in 1896 (NETROnline, 2020 [1896]). The 1896 through 1902 topographic maps do not show any buildings present on or near the immediate project area aside from the two railroads (NETROnline, 2020 [1896, 1899, 1902]). In the 1923 topographic map, oil tanks for the "Standard Oil Co. Pumping Station" are visible to the north-northwest of the project site (NETROnline, 2020 [1923]). In the 1942 through 1945 maps, buildings are present near the southwest end of the project site (NETROnline, 2020 [1942, 1945]). By the time of the 1964 and 1965 maps, the immediate project area has been fully developed and multiple structures are present along the I-5 Freeway (NETROnline, 2020 [1965]).

FIELD METHODS

A pedestrian survey was conducted along the proposed alignment (see HPSR Attachment A, Map 2 and Map 3) on February 6, 2020 by Mr. Stephen O'Neil. The survey consisted of walking, visually inspecting, and photographing the exposed ground surface and landscaped areas of the project site using standard archaeological procedures and techniques. Access to the channel is limited to gates at several of the road crossings, which are generally locked. On the day the cultural resources survey was conducted, Mr. Camden Cabrinha and his crew were conducting their engineering survey of portions of the channel for the OC Loop Project along the entire project length and provided gate access at several points.

Survey of the ground surface was conducted in a linear and opportunistic manner; walking transects over the north and west channel embankment above the channel itself. The embankment ranged from approximately 20 to 60 feet wide with an asphalt road approximately ten feet wide along the channel-side edge. The asphalt road was occasionally well maintained, but frequently was not and was more gravely in constitution. There was a boundary chain-link fence along the entire boundary line on the north/west side. The embankment from the road to the fence was sometimes level, and occasionally sloped up to the fence, and ranged from ten feet to 55 feet away from the road. This open area was consistently devoid of vegetation.

The survey started at the southern end of Segment O (see HPSR Attachment A, Map 2, western red portion), where the main Coyote Creek Channel is joined by the North Fork – Coyote Creek. A pedestrian bridge would be built across the North Fork to the main channel side (Figure 1). The west side of the channel was walked northward, observing commercial buildings adjacent to the embankment up to the Valley View Avenue bridge crossing the channel (Figure 2) where there would be a bicycle trail undercrossing. Markings on this bridge provided its Caltrans identification number B1658. The transect was continued eastward. Structures lining the channel boundary between Valley View Avenue and the end of Segment O at Artesia Boulevard are industrial and commercial businesses, including large warehouse structures (Figure 3) on both sides of the creek.

The Artesia Boulevard bridge (Figure 4), south end of Segment P (see HPSR Attachment A, Map 2**, central green portion**), would have a bicycle trail undercrossing. Markings on this bridge provided its Caltrans identification number 3145. While continuing the survey transect along the narrow, concrete walkway under the bridge, a small encampment (representing one or two residents) was observed (Figure 5). The transect was continued northeastward along the channel embankment until it reached an oil pipeline crossing and an adjacent railroad bridge crossing, both of which block transit along the channel embankment (Figure 6 and Figure 7). At this point there would be a bicycle trail undercrossing; however, at present there is no flat embankment between the pipeline and railroad, and one has to go up to the railroad crossing level and cross the railroad tracks, and then go back down to the level of the embankment on the north side (railroad bridges had no Caltrans identification number). Walking over this railroad crossing, a medium-sized encampment of approximately five makeshift lodging structures was observed at the northern corner of the crossing (Figure 8); no one appeared to be home at the time.

Within approximately 425 feet to the north of the railroad bridge the S. Firestone Boulevard bridge crosses the Coyote Creek Channel (Figure 9). The road lies adjacent to the Santa Ana/I-5 Freeway, with N. Firestone Boulevard adjacent to the freeway on the north side. These three bridges would

have a single bicycle trail undercrossing them all. Markings on the S. Firestone Boulevard bridge indicate that it was built in 1950, and provided its Caltrans identification number B1011. Due to active construction on the interface between the S. Firestone Boulevard bridge and the I-5 Freeway (Figure 10), it was not possible to continue the survey along the channel embankment below these three bridges or to look for markings indicating the year of construction or designation for the freeway bridge.

Starting at the southeast corner of N. Firestone Boulevard and Trojan Way, there is access to the channel embankment which now turns eastward. Along both sides of the channel boundary fence there are industrial buildings, including warehouses (Figure 11). Section P continues east to the Knott Avenue bridge crossing the channel (Figure 12). At this point the bicycle trail would proceed up to street level where it would cross Knott Avenue on the north side of the bridge and then go back down to the level of the embankment on the east side. Markings on this bridge provided its Caltrans identification number B1657.

The pedestrian survey continued on to Segment Q (see HPSR Attachment A, Map 2**, eastern purple portion**), which starts at the Knott Avenue bridge. Beyond Knott Avenue within approximately 425 feet there is a small railroad line that crosses the channel (Figure 13). At this point the bicycle trail would proceed up to street elevation where it would cross the railroad bridge on the north side of the bridge and then go back down to the level of the embankment on the east side. The survey continued along the west channel embankment as the channel turns to the northeast. In this area, while commercial buildings still line the west side of the channel fencing, there were single-family residences on the east side of the channel (Figure 14). Another railroad bridge crosses the channel on this stretch (Figure 15) where the bicycle trail would use an undercrossing; at this point on the east side of the channel there is a single large commercial building. Approximately 450 feet to the north of the railroad bridge the channel is crossed by Stage Road (Figure 16). Just before the street bridge the bicycle trail would cross to the east side of the channel on a proposed pedestrian bridge. The trail would use an undercrossing at the Stage Road bridge and then continue on to the La Mirada Boulevard bridge over the channel (Figure 17). Between Stage Road and La Mirada Boulevard both embankments are wide with an intensively landscaped patch at the west embankment's edge of shrubs and trees probably reflecting the activity of the adjacent residential lot, and trees line the boundary on the east embankment. The Stage Road and La Mirada Boulevard bridges did not have identifiable identification numbers.

The trail would leave the channel embankment at La Mirada Boulevard, entering the sidewalk along the east-bound lane of the street. Along the sidewalk there is ornamental landscaping in a flowerbed between the street and a large retail building (Figure 18). The bike trail would cross La Mirada Boulevard at the signaled intersection for shopping centers on opposite sides of the street, and then continue on the sidewalk west to the existing bicycle trail along the Coyote Creek Channel's west embankment. This is the northern terminus of Segment Q.

The result of the pedestrian survey was negative for both historic and prehistoric cultural resources. Photographs of the project site were taken during the cultural resources survey to document the observations.

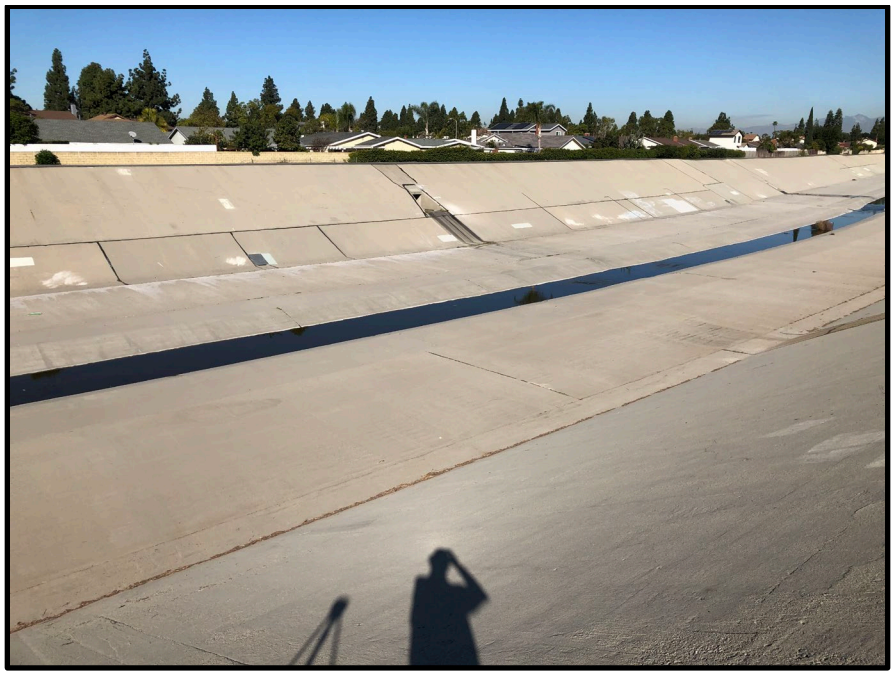


Figure 1. Start of Segment O at North-Fork of Coyote Creek Channel (View to the Northwest). (Photograph Taken on February 6, 2020.)



Figure 2. West Channel Embankment Between the North Fork and Valley View Avenue Bridge (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 3. Coyote Creek Channel Embankment Between Valley View Avenue and Artesia Boulevard (View to the East). (Photograph Taken on February 6, 2020.)



Figure 4. Artesia Boulevard Bridge (View to the East). (Photograph Taken on February 6, 2020.)



Figure 5. Homeless Encampment Under Artesia Boulevard Bridge (View to the West). (Photograph Taken on February 6, 2020.)



Figure 6. Oil Pipeline and Railroad Bridge Over the Channel in Segment P (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 7. Railroad Bridge and Oil Pipeline Over Coyote Creek Channel (View to the Southeast). (Photograph Taken on February 6, 2020.)



Figure 8. Large Homeless Encampment at Railroad Bridge, South of S. Firestone Boulevard (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 9. S. Firestone Boulevard Bridge Crossing the Channel (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 10. Construction Work Along the Channel Between S. Firestone Blvd., the Santa Ana Freeway, and N. Firestone Blvd. (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 11. West Channel Embankment with Commercial Buildings on Both Sides, North of the Santa Ana Freeway (View to the East). (Photograph Taken on February 6, 2020.)



Figure 12. Knott Avenue Bridge Over the Channel (View to the East). (Photograph Taken on February 6, 2020.)



Figure 13. Railroad Bridge over the Channel, East of Knott Avenue (View to the East). (Photograph Taken on February 6, 2020.)



Figure 14. Commercial Buildings on the West Side and Residential on the East Side of the Channel (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 15. Railroad Bridge Over the Channel South of Stage Road (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 16. Stage Road Bridge Over the Coyote Creek Channel (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 17. Landscaping on Both Sides of the Channel Embankments with La Mirada Boulevard Bridge in Background (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 18. Ornamental Landscaping Along Proposed Bike Trail Beside La Mirada Boulevard (View to the Southeast). (Photograph Taken on February 6, 2020.)

STUDY FINDINGS AND CONCLUSIONS

The archaeological field survey produced negative results for archaeological resources, and no archaeological features or artifact deposits, either prehistoric or historic in origin, were encountered. Based on the results of the records search, tribal consultation, and the onsite field survey, it is unlikely that prehistoric cultural resources or tribal resources would be adversely affected by construction of the project. Land at the site along the Coyote Creek Channel is entirely light grey sandy alluvium which has been extensively graded, with any remaining natural banks cut-and-filled by the early 1960s to allow the complete concrete channelization of the creek along the entire length of the project boundary. However, grading activities associated with construction of the project would cause new subsurface disturbance and potentially could result in the unanticipated discovery of disturbed archaeological resources dating to the free-flow of Coyote Creek when its immediate area may have been used by Native American for resource gathering and travel. Since the undertaking is confined within the extensively disturbed rights-of-way of existing channel and access roads, the subsurface soils within the vertical APE appear to be low in sensitivity for buried archaeological remains.

Based on these findings, the present ASR concludes that no archaeological resources will be affected by the proposed undertaking. If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted within 60 feet of the finding until a qualified archaeologist can assess the significance of the find. Additional archaeological surveys will be needed if project limits are extended beyond the present survey limits.

The segments of the former Southern Pacific Railroad (now UPRR), the former Atchison, Topeka and Santa Fe Railway (now BNSF), and the Coyote Creek (East Fork) Channel in the APE are evaluated under the criteria for the National Register of Historic Places in the accompanying Historic Resources Evaluation Report (see HPSR Attachment D), and all three of them were found to be ineligible for listing.

REFERENCES

Advisory Council on Historic Preservation
2000 *Protection of Historic Properties, Section 106, Step-by-Step*. http://www.achp.gov.

Anonymous
n.d. Primary Site Record 30-120020, (Two privies and historic trash pits associated with the Northam Railroad Station.) On file at the South Central Coastal Information Center, California State University, Fullerton.

Armor, Samuel
1921 History of Orange County, California: with Biographical Sketches of the Leading Men and Women of the County who Have Been Identified with its Earliest Growth and Development from the Early Days to the Present, Part 1. Historic Record Company, Los Angeles, California.

Ashkar, S.

1999 Primary Site Record 19-186110 / 30-176630, Segment of the Union Pacific Railroad. On file at the South Central Coastal Information Center, California State University, Fullerton.

Baker, Geo
1873 Map of a portion of Los Angeles County showing the Abel Stearns' ranches: La Habra, Los Coyotes, San Juan Cajon, Las Bolsas, La Bolsa Chica. Online Archive of California. https://oac.cdlib.org/ark:/13030/hb2n39p1js/?brand=oac4. Accessed March 10, 2020.

Ballester, Daniel, and Bai "Tom" Tang.
2002 Primary Site Record 19-186804 / 30-176663, Segment of the Burlington Northern Santa Fe Railroad. On file at the South Central Coastal Information Center, California State University, Fullerton.

Bandy, Marcy, and Maurice Bandy
1998 *Saddleback Ancestors: Rancho Families of Orange County, California*. Revised Edition. Orange County Genealogical Society, Orange, California.

Bean, Lowell John, and Charles R. Smith
1978 Gabrielino. In Handbook of North American Indians, William C. Sturtevant, general editor, vol. 8, *California*, edited by Robert F. Heizer, pp. 538-549. Smithsonian Institution, Washington, DC.

Brigandi, Phil
2006 *Orange County Place Names A to Z*. Sunbelt Publications, Inc., San Diego, California.

BuenaParkHistory.org
2020 History. Buena Park Historical Society. http://www.buenaparkhistory.org/wp/history/. Accessed February 24, 2020.

California Waterboards
2020 San Gabriel River Watershed. https://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/Water_Quality_and_Watersheds/san_gabriel_river_watershed/summary.shtml. Accessed February 24, 2020.

Cenovich, Marilyn
1995 The Story of Cerritos: A History in Progress. http://menu.ci.cerritos.ca.us/collections/local_history/cl_lhStory.htm. Accessed February 24, 2020.

Chamberlain, H. A.
1971 *The Picture Story of Buena Park*. Buena Park: City Council and Historical Society of Buena Park.

City of La Mirada
2020 History of La Mirada. https://www.cityoflamirada.org/about-us/history. Retrieved February 25, 2020.

Discover La Mirada
2020 La Mirada Historical Timeline. http://www.discoverlamirada.com/history/. Retrieved February 25, 2020.

Dumke, Glenn S.
1944 The Boom of the Eighties. Huntington Library, San Marino, California.

Engelhardt, Zephryn, O.F.M.
1931 San Gabriel Mission and the Beginnings of Los Angeles. Franciscan Herald Press, Chicago.

Golla, Victor
2011 *California Indian Languages*. University of California Press, Berkeley.

Howard, W. J., and L. M. Raab
1993 Olivella Grooved Rectangle Beads as Evidence of an Early Period Southern California Channel Island Interaction Sphere. *Pacific Coast Archaeological Society Quarterly* 29(3):1-11.

HMdb.org
2019 Site of Lily Creamery. The Historical Marker Database. https://www.hmdb.org/m.asp?m=49986. Accessed February 24, 2020.

Hudlow, Scott M.
2006 Primary Site Record 19-187549, KFI Transmitter Building. On file at the South Central Coastal Information Center, California State University, Fullerton.

Johnson, Bernice E.
1962 *California's Gabrielino Indians*. Southwest Museum: Los Angeles.

KCET
2020 The Other River that Defined L.A.: The San Gabriel River in the 20th Century. https://www.kcet.org/shows/departures/the-other-river-that-defined-la-the-san-gabriel-river-in-the-20th-century. Accessed February 24, 2020.

King, Chester
2017 Takic settlements listed in Franciscan Mission Registers. MS in possession of the author.

Kroeber, Alfred
1925 Handbook of the Indians of California. *Bureau of American Ethnology Bulletin* No. 78, Washington, D.C.

Los Angeles County Department of Public Works (LACDPW)
2020 Los Angeles County Flood Control District, 100 Years. https://dpw.lacounty.gov/LACFCD/web/. Accessed February 24, 2020.

McCawley, William
1996 The First Angelinos: The Gabrielino Indians of Los Angeles. Malki Museum Press, Banning, California/Ballena Press, Novato, California.

McLeod, Samuel A.
2020 Letter to Stephen O'Neil "Re: Paleontological Records Search for the proposed Orange County Loop Segments O, P and Q Project, UltraSystems Environmental Project No. 7034, in the Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, project area." Vertebrate Paleontology Section, Natural History Museum of Los Angeles County. Dated 13 February 2020.

Merriam, C. Hart
1968 Village Names of Twelve California Mission Records. *University of California Archaeological Survey Report* 74. Berkeley.

Moratto, Michael J.
1984 *California Archaeology*. Academic Press, New York.

NETR Online
1896-1981 USGS Topographic maps of the project vicinity, prepared in 1896, 1899, 1902, 1923, 1925, 1935, 1942, 1943, 1945, 1949, 1951, 1964, 1965, 1972, 1974, and 1981. http://www.historicaerials.com. Accessed February 24, 2020.

NETR Online
1952-2016 Aerial photographs of the project vicinity, taken in taken in 1952, 1953, 1954, 1963, 1972, 1994, 2002, 2003, 2004, 2005, 2009, 2010, 2012, 2014 and 2016. http://www.historicaerials.com. Accessed February 24, 2020.

Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format*. Department of Parks and Recreation, Office of Historic Preservation: Sacramento.

1997 Instructions for Nominating Historical Resources to the California Register of Historical Resources. Office of Historic Preservation, Sacramento: California.

OrangeCounty.net
2020 City Guide-Buena Park. History of Buena Park. https://www.orangecounty.net/cities/BuenaPark_history.html. Accessed February 24, 2020.

Porcasi, Judith F.
1998 Middle Holocene Ceramic Technology on the Southern California Coast: New Evidence from Little Harbor, Santa Catalina Island. *Journal of California and Great Basin Anthropology* 20:270-284.

Saucedo, George J., H. Gary Green, Michael P. Kennedy, and Stephen P. Bezore.
2016 Geologic Map of the Long Beach 30'x60' Quadrangle, California. Accessed July 7, 2020.

Stantec Consulting Services Inc. (Stantec), 2015. OC Loop Gap Feasibility Study. March. Accessed online on January 2, 2020 at: http://www.ocparks.com/civicax/filebank/blobdload.aspx?BlobID=44087

Strawther, Larry

2012 A Brief History of Los Alamitos and Rossmoor. The History Press, Charleston, South Carolina.

VisitBuenaPark.com
2020 History of Buena Park, California. https://www.visitbuenapark.com/p/tools/about-us/history-of-buena-park/history. Accessed February 24, 2020.

Wallace, William J.
1978 Post-Pleistocene Archaeology, 9,000 to 2,000 B.C. In Handbook of North American Indians, William C. Sturtevant, general editor, vol. 8, California, edited by Robert F. Heizer, pp. 25-36. Smithsonian Institution, Washington, DC.

Warren, Claude N.
1968 Cultural Traditions and Ecological Adaptations on the Southern California Coast. In *Archaic Prehistory in Western United States*, Cynthia Irwin-Williams (ed.), pp. 1-14. Eastern New Mexico University Contributions in Anthropology 1(3). Portales, New Mexico.

Weather Spark
2020 Average Weather in Buena Park. https://weatherspark.com/y/1831/Average-Weather-in-Buena-Park-California-United-States-Year-Round. Accessed February 25, 2020.

ATTACHMENT D
HISTORICAL RESOURCES EVALUATION REPORT

OC LOOP SEGMENTS O, P, AND Q COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works

Prepared by:

Bai "Tom" Tang, M.A. Principal Architectural Historian
Terri Jacquemain, M.A., Historian/Architectural Historian
CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

Reviewed by:

Janice Calpo, Principal Architectural Historian
California Department of Transportation HQ
1120 N Street
Sacramento, CA 95814

Approved by:

Charles Baker

Charles Baker, District 12 Environmental Branch Chief
California Department of Transportation, District 12
1750 E. 4th Street, #100, Santa Ana, CA 92705

November 18, 2020

Approximately 26.17 acres
T3S R11W, SBBM (Rancho Los Coyotes land grant)
USGS La Habra, Los Alamitos, and Whittier, Calif., 7.5' quadrangles

SUMMARY OF FINDINGS

This Historical Resources Evaluation Report (HRER) is prepared for the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project in the Cities of Cerritos, La Mirada, and Buena Park, generally along the boundary between Los Angeles and Orange Counties, within Caltrans District 12 (Federal Aid Project No. ATPL-5955(112); see HPSR Attachment A). The undertaking entails primarily the construction of 2.7 miles of 10- to 16-foot-wide Class 1 bike path on the basis of existing service roads along the Coyote Creek (East Fork) Channel, within the Orange County and Los Angeles County Flood Control Districts right-of-way, to close a gap in the OC Loop, a 66-mile regional bikeway corridor. The new bike path will connect to previously completed OC Loop segments at the confluence between East Fork and North Fork of Coyote Creek in the City of Cerritos and at the intersection of the channel with La Mirada Boulevard in the City of Buena Park.

As a component of the Historic Property Survey Report (HPSR), the HRER is prepared in compliance with Section 106 of the National Historic Preservation Act, as implemented through federal regulations outlined in 36 CFR 800, and in accordance with the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA). The purpose of the HRER is to document the identification and evaluation of historic-period resources within the undertaking's Area of Potential Effects (APE) and determine whether any such resources qualify as "historic properties," as defined by 36 CFR 800.16(l).

The scope of the HRER included a cultural resources records search, historical background research, consultation with local community representatives, and field inspections of the APE on February 6 and October 8, 2020. As a result of these research procedures, three linear features of historical origin were identified as lying partially within the APE, two of them previously recorded into the California Historical Resources Inventory and the third recorded during this study (see Appendix 2). The three cultural resources are listed below:

- Site 19-186110/30-176630 Former Southern Pacific (now Union Pacific) Railroad
- Site 19-186804/30-176663 Former Atchison, Topeka and Santa Fe (now Burlington Northern Santa Fe) Railway
- (Site number pending) Coyote Creek (East Fork) Channel

The portions of these linear resources lying within the APE were evaluated against the criteria for listing in the National Register of Historic Places (NRHP), and none of them appear to be eligible. Therefore, they do not meet the definition of "historic properties." An industrial/commercial building in the APE, located at 14701-14765 Industry Circle in the City of La Mirada and originally constructed in 1964, has been greatly expanded and significantly altered, especially on the primary façade, most recently in 1999. As a result, the building is exempt from further study and formal evaluation pursuant to Section 106 PA Attachment 4 (Property Type 3: buildings, structures, objects, districts, and sites so altered as to appear less than 30 years old).

In addition, ten highway bridges lie across the APE, ranging in construction date from 1934 to 1967, as listed below:

- 53 0279 Interstate Highway 5 over Coyote Creek
- 53C0149 South Firestone Boulevard over Coyote Creek
- 53C0150 North Firestone Boulevard over Coyote Creek
- 53C0410 Artesia Boulevard over Coyote Creek
- 53C0815 Valley View Avenue (southbound) over Coyote Creek
- 53C1491 Trojan Way over Coyote Creek
- 53C1515 Knott Avenue over Coyote Creek
- 55C0039R Valley View Avenue (northbound) over Coyote Creek
- 55C0071 Stage Road over Coyote Creek
- 55C0198 La Mirada Boulevard over Coyote Creek

All of these bridges are listed in the Caltrans Historic Bridge Inventory as Category 5 (not eligible for NRHP; see HPSR Attachment B). No other potential "historic properties," including historic districts, historic landscapes, locally designated sites, or properties of traditional cultural value, were encountered within or adjacent to the APE during this study.

TABLE OF CONTENTS

SUMMARY OF FINDINGS i
PROJECT DESCRIPTION 1
RESEARCH METHODS 2
Historical/Archaeological Resources Records Search 2
Historical Background Research 3
Consultation with Local Communities 3
Field Survey 4
HISTORICAL OVERVIEW 6
Regional Historical Background 6
Development along the APE 8
DESCRIPTION OF CULTURAL RESOURCES 10
FINDINGS AND CONCLUSIONS 11
List of Findings 11
Conclusion 12
REFERENCES 12
APPENDIX 1: PERSONNEL QUALIFICATIONS 15
APPENDIX 2: DPR 523 FORMS 17

LIST OF FIGURES

Figure 1. Industrial/commercial complex at 14701-14765 Industrial Circle 5
Figure 2. 2007 Google Street View photograph 5
Figure 3. Abandoned railroad spurs in the APE for indirect effects 6

PROJECT DESCRIPTION

The Orange County Department of Public Works, in cooperation with the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans), proposes an undertaking known as the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project in the Cities of Cerritos, La Mirada, and Buena Park, roughly along the boundary between Los Angeles and Orange Counties, and within Caltrans District 12 (Federal Aid Project No. ATPL-5955(112); see HPSR Attachment A).

The undertaking entails primarily the construction of 2.7 miles of Class 1 bike path along the Coyote Creek (East Fork) Channel, almost entirely within the Orange County and Los Angeles County Flood Control Districts right-of-way. The new bike path will connect to previously completed bike paths at the confluence between East Fork and North Fork of Coyote Creek in the City of Cerritos and at the intersection of the channel with La Mirada Boulevard in the City of Buena Park, thus closing a gap in the OC Loop, a 66-mile regional bikeway corridor.

The proposed bike path will traverse in a generally southwest-northeast direction and will be built on the basis of existing service roads along the Coyote Creek (East Fork) Channel, mostly on the northwestern bank except for the final 560 feet at the northeastern end, where the project route will cross to the southeastern bank to meet the existing OC Loop bikeway at La Mirada Boulevard. The completed bike path will be paved with asphalt and range between 14 and 16 feet in width (inclusive of two-foot shoulders on each side) along most of the course. Where underpasses are required, the bike path will be paved with concrete and between 10 and 14 feet wide, with no shoulders.

A total of seven underpasses, five at-grade crossings, and one overpass are proposed where the bike path will cross 13 existing bridges carrying ten public roadways and three railroad lines across the Coyote Creek (East Fork) Channel. The underpasses will typically be constructed with precast concrete box culverts, and the overpass, at the Union Pacific Railroad crossing (see HPSR Attachment A, Map 3:6), will be a 1,200-foot-long, 35-foot-high truss bridge. Additionally, two prefabricated bicycle and pedestrian bridges will be installed over the channel to facilitate bike path crossing (see HPSR Attachment A, Maps 3:1 and 3:12). At the northern end of the undertaking, roughly 20 sidewalk trees along La Mirada Boulevard will be removed to provide access to an at-grade crossing some 300 feet east of the channel (see HPSR Attachment A, Maps 3:12).

Temporary and permanent easements will be required from private properties and public rights-of-way along the route to accommodate the at-grade crossings, staging/storage areas, construction access, and borrow/disposal sites. The maximum depth of ground disturbance will be limited to two feet below the ground surface at most locations but may reach as much as 18.5 feet where major construction activities will occur, such as installation of concrete box culverts and anchoring the overpass. Other than the overpass, project activities above the ground will be limited to establishment of standard signage, installation of 4- to 5-foot-high chain-link or cable fences in some areas, and the relocation of a power pole near the South Firestone Boulevard crossing.

The Area of Potential Effects (APE; approved on November 16, 2020) was delineated to encompass the maximum extent of all ground disturbances required by the project design, including staging/storage areas, access routes, borrow/ disposal sites, and at-grade crossings outside the flood control right-of-way. Also included in the APE are two privately-owned parcels (7003-011-036 and 7003-011-813) adjacent to the proposed overpass across the Union Pacific Railroad, where a late-

historic-period building may receive visual, atmospheric, or other indirect effects from the construction of the high-profile bridge (see HPSR Attachment A, Maps 3:4-6). Three other parcels around the proposed overpass contain buildings constructed between 1978 and 1983 (NETR Online 1972; 1994; County of Los Angeles n.d.). As modern buildings (i.e., less than 50 years of age) are not considered for potential indirect effects, these properties are not included in the APE. No additional APE was deemed necessary along La Mirada Boulevard because field inspections indicate that the proposed tree removal has little potential for indirect effects on nearby buildings that may be of historical origin due to their distances and orientations.

The APE consists of a total of 26.17 acres, of which 12.88 acres comprise the Area of Direct Impact (ADI). The primary component of the ADI is the right-of-way for the bike path, which runs approximately 2.7 miles in total length and measures 10 to 16 feet in width. The entire APE lies in a fully urbanized setting in the Cities of Cerritos and La Mirada in Los Angeles County and the City of Buena Park in Orange County, across a portion of the Los Coyotes land grant in what would be Sections 26, 27, 33, and 34, Township 3 South Range 11 West, San Bernardino Baseline and Meridian (see HPSR Attachment A). The vertical extent of the APE below surface will range between two feet and 18.5 feet in depth, as discussed above.

RESEARCH METHODS

HISTORICAL/ARCHAEOLOGICAL RESOURCES RECORDS SEARCH

The historical/archaeological resources records search was conducted on February18, 2020, at the South Central Coastal Information Center (SCCIC), California State University, Fullerton. The purpose of the records search was to identify existing cultural resources studies and known cultural resources within a half-mile radius of the APE. Known cultural resources include properties designated as National Historic Landmarks, California Historical Landmarks, or Points of Historical Interest, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory. In addition to SCCIC records, the Caltrans Historic Bridge Inventory was also consulted for pertinent information.

SCCIC records indicate that 20 cultural resources studies have been completed within the scope of the records search, ten of them overlapping various portions of the project alignment, but the APE as a whole had not been surveyed systematically prior to this study (see HPSR Attachment C for further information). Two linear transportation features from the historic period, the Southern Pacific (now Union Pacific) Railroad and the Atchison, Topeka and Santa Fe (now Burlington Northern Santa Fe) Railway, were previously recorded as lying across the APE and designated Sites 19-186110/30-176630 and 19-186804/30-176663 in the California Historical Resources Inventory, respectively. These two resources will be discussed further below.

Two other sites of historical origin, 19-187549 and 30-120020, have been recorded outside the APE but within the half-mile radius. Site 19-187549 represented the circa 1931 KFI radio station transmitter building, a two-story Art Deco-style brick structure at 16608 Trojan Way in La Mirada, some 375 feet north of the APE. Site 30-120020 consisted of two privies and trash pits associated with the former Northam railroad station in Buena Park, located approximately 1,050 feet southeast of the APE. Since they have no potential to be affected directly or indirectly by the proposed undertaking, these two sites require no further consideration during this study.

The Caltrans Historic Bridge Inventory lists all ten highway bridges across the APE as Category 5, i.e., not eligible for the National Register of Historic Places (see HPSR Attachment B):

- 53 0279 Interstate Highway 5 over Coyote Creek, built in 1934/1959
- 53C0149 South Firestone Boulevard over Coyote Creek, built in 1950
- 53C0150 North Firestone Boulevard over Coyote Creek, built in 1950
- 53C0410 Artesia Boulevard over Coyote Creek, built in 1967
- 53C0815 Valley View Avenue (southbound) over Coyote Creek, built in 1966
- 53C1491 Trojan Way over Coyote Creek, built in 1967
- 53C1515 Knott Avenue over Coyote Creek, built in 1967
- 55C0039R Valley View Avenue (northbound) over Coyote Creek, built in 1967
- 55C0071 Stage Road over Coyote Creek, built in 1960
- 55C0198 La Mirada Boulevard over Coyote Creek, built in 1950

HISTORICAL BACKGROUND RESEARCH

In conjunction with the records search, a historical background review was conducted on the basis of published literature in local and regional history, historic maps and aerial photographs of the project vicinity, and the archival records of the County of Los Angeles, the City of La Mirada, and the U.S. Army Corps of Engineers. Among the historic maps consulted were U.S. Geological Survey (USGS) topographic maps dated 1896-1981, which are collected at the Science Library of the University of California, Riverside. The aerial photographs, taken between 1952 and 2020, are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software. Findings from these sources are presented in the sections below.

CONSULTATION WITH LOCAL COMMUNITIES

As a part of the research procedures, city government staff and local historical organizations in Buena Park, Cerritos, and La Mirada were consulted for information on potential cultural resources of local significance in or near the APE (see HPSR Attachment F). The individuals and organization contacted during the consultation are listed below:

- Brady Woods, Supervisor of Planning Division, Community Development Department, City of Buena Park
- Mike O'Grady, Environmental Services Manager, Community Development Department, City of Cerritos
- Gabriel Bautista, Director, Community Development Department, City of La Mirada
- Orange County Historical Society/Heritage Museum of Orange County
- Buena Park Historical Society
- La Mirada Community Foundation/Discover La Mirada

The initial requests for comments were sent by e-mail on April 21, 2020, and follow-up telephone solicitations were subsequently carried out on April 21, July 13, and October 15. As of this time, the Buena Park Historical Society and the Cities of Buena Park and Cerritos have not responded to the inquiry. On April 21, 2020, Latecia Ravilla, Liaison for the La Mirada Community Foundation, requested the project information to be re-sent to her by e-mail, which was done immediately after the telephone call. On October 15, Gabriel Bautista of the City of La Mirada stated by telephone

that the City had no objections to the project but that he would review the project information and respond further by e-mail if he had any additional comments. On the same day, Jamie Hiber, Executive Director of the Heritage Museum of Orange County, replied by e-mail and indicated that she would discuss with society members and respond further later. To date, no further response has been received.

FIELD SURVEY

On February 6, 2020, a systematic archaeological field survey of the ADI was completed by Stephen O'Neil, principal investigator of prehistoric and historic archaeology. The survey was conducted on foot by walking along the entire project corridor and visually inspecting the exposed ground surface for any indications of human activities from the prehistoric or historic period using standard archaeological procedures and techniques (see HPSR Attachment C for further information).

The survey confirmed the presence of the former Southern Pacific Railroad (Site 19-186110/30-176630) and the former Atchison, Topeka and Santa Fe Railway (Site 19-186804/30-176663) across the APE (see HPSR Attachment A, Map 3:6 and 3:10). In addition, a Santa Fe spur line across the APE was noted at the confluence of Coyote and Brea Creeks and was recorded as a component of Site 19-186804/30-176663 (see HPSR Attachment A, Map 3:8). Site record updates were prepared to document the current condition of the rail lines at these locations (see Appendix 2). Meanwhile, the segment of the Coyote Creek (East Fork) Channel in the APE, which is now more than 50 years of age, was also recorded into the California Historical Resources Inventory (see Appendix 2). These three potential "historic properties" are discussed further below.

On October 8, 2020, principal architectural historian Bai "Tom" Tang (see Appendix 1 for qualifications) carried out a field inspection of the APE for indirect effects, focusing on the historic-period building and other features that may receive visual or atmospheric effects from the construction of the proposed overpass at the Union Pacific Railroad. Other properties around the overpass site were also inspected to confirm the modern origin of the buildings on these properties, as the results of the historical background research suggested, and to identify other features that may be subject to indirect effects.

The historic-period building in the APE for indirect effects (see HPSR Attachment A, Maps 3:4-6) is a large, flat-roofed industrial/commercial complex that measures more than 393,900 square feet in total area (County of Los Angeles n.d.). It is currently divided into four units and occupied by four businesses: Batesville Casket Company at 14701 Industry Circle, South Coast Container at 14715 Industry Circle, Fred David International at 14731 Industry Circle, and Dale Tiffany Outlet Center/ Agents West Inc. at 14733-14765 Industry Circle (Figure 1).

Historical sources indicate that this building was constructed in three stages between 1964 and 1999. The frame-and-stucco central block, measuring 70,320 square feet, was constructed in 1964 (NETR Online 1963; 1972; USGS 1964-1972; County of Los Angeles n.d.). The much larger concrete masonry southern portion, 246,975 square feet in size, was built in 1967-1970 (City of La Mirada 1970; USGS 1972b; 1972c; NETR Online 1972; County of Los Angeles n.d.). The 68,808-square-foot northern portion, mostly of concrete masonry construction but including a partial new façade of frame and stucco over the central block, was added in 1999, as was a 7,740-suare-foot frame-and-stucco portion at the southwestern corner of the complex (NETR Online 1994; 2002; County of Los Angeles n.d.).



Figure 1. Industrial/commercial complex at 14701-14765 Industrial Circle. *Clockwise from upper left*: central block (14715 Industrial Circle, *foreground*, built in 1964) and northern addition (14701 Industrial Circle, *background*, built in 1999), view to the northeast; southern addition (14731 and 14733 Industrial Circle, built in 1967-1970), view to the northeast; southwestern addition (14765 Industrial Circle, built in 1999), view to the northeast; rear façade of the northern and central portions of the building, view to the northwest. (Photographs taken on October 8, 2020)

Field observations suggest that the front portion of the central block was remodeled at the time of the last addition to form a uniform façade on the street-facing side (Figures 1, 2). Consequently, the main façade of the building today is mostly modern in character, with only the 1967-1970 addition to the south, featuring a series of loading docks, retaining its original appearance (Figure 1). In light of the substantial additions and prominent alterations in 1999, the building is determined to be exempt from further study and formal evaluation pursuant to Caltrans Programmatic Agreement



Figure 2. 2007 Google Street View photograph of the central block, the 1999 addition (*left*), and the 1967-1970 addition (*far right*). (Source: https://www.google.com/maps)



Figure 3. Abandoned railroad spurs in the APE for indirect effects. *Left*: circa 1963-1965 spur (*foreground*, embedded in pavement) and northern segment of circa 1965-1972 spur (*background*, beyond the fence), view to the southeast; *right*: southern segment of circa 1965-1972 spur, view to the north. (Photographs taken on October 8, 2020)

Attachment 4 (Property Type 3: buildings, structures, objects, districts, and sites so altered as to appear less than 30 years old).

Also observed in the APE for indirect effects during the field inspection were the remnants of two abandoned railroad spur lines that were constructed in the 1960s-1970s. The older of the two, which ran roughly 500 feet from the nearby Union Pacific Railroad mainline to the central block of the building at 14701-14765 Industrial Circle, was constructed in 1963-1965, presumably at the same time as the building (NETR Online 1963; 1972; USGS 1964b; 1965). It is now embedded in the asphalt pavement of the driveway and parking lot around the northern end of this building (Figure 3).

The other spur line, built between 1965 and 1972, once extended some 2,800 feet on the northwestern bank of the Coyote Creek Channel to serve the four warehouses along its course (USGS 1972b; 1972c; NETR Online 1972). This line is now mostly dismantled and removed, leaving three short segments surviving in dilapidated condition around the building at 14701-14765 Industrial Circle, two of them within the APE for indirect effects (Figure 3). As these features are not subject to potential visual, atmospheric, or other indirect effects from the construction of the proposed overpass nearby, no further study or formal evaluation is deemed necessary.

HISTORICAL OVERVIEW

REGIONAL HISTORICAL BACKGROUND

The area of present-day southeastern Los Angeles County and northwestern Orange County received the earliest European visitors in the late 18th century with the arrival of Spanish explorers and missionaries. Mission San Gabriel, originally founded in what is now Montebello, was awarded jurisdiction over most of the area after its establishment in 1771. Shortly afterwards, José Manuel Nieto, a Spanish soldier, became first non-religious settler in the area. By 1784, Nieto had built the first adobe house in the area on a temporary land concession he received that year from Governor Pedro Fages of Alta California, which included all the land from the mountains to the sea between the San Gabriel River and the Santa Ana River (Strawther 2012; Bandy and Bandy 1998).

After Manuel Nieto's death, the land was divided among his heirs into five smaller ranchos. The largest among them, the 48,806-acre Rancho Los Coyotes, was officially granted to Juan José Nieto, Manuel Nieto's eldest son, in 1834 by José Figueroa, the Mexican governor of Alta California (Bandy and Bandy 1998). As mentioned above, the APE lies entirely within Rancho Los Coyotes, which straddles the present-day Los Angeles-Orange county line. As elsewhere in the sparsely populated province, cattle raising was the most prevalent economic activity on Rancho Los Coyotes and other nearby land grants until the influx of American settlers eventually brought an end to this now-romanticized lifestyle after the end of Mexican rule.

Alta California changed hands from Spain to Mexico when the latter gained independence in 1821, and then to the United States in 1848 as a result of the Mexican-American War. By 1860, Abel Stearns, a Massachusetts native who had become a prominent *ranchero* during the final years of Mexican rule, had consolidated seven former Mexican land grants into the Stearns Ranchos, which stretched from present-day Riverside to the Orange County coastline (Buena Park Historical Society n.d.). With a plan to resell portions of the land in tracts of various sizes for both farms and town lots, Stearns ushered in a period of accelerated growth and speculative town-building on his vast domain.

The first town to merge near the APE, Buena Park, was founded in 1887 on 690 acres that James A. Whitaker, a wholesale grocer from Chicago, had purchased from the Stearns Ranchos in 1885 (Visit Buena Park n.d.). In 1888, Andrew McNally, co-founder of the Rand McNally Publishing Company, bought 2,300 acres from the Stearns Ranchos and, after a plan to create a new community of gentleman farmers by selling 20-acre parcels fell victim to the depression of the 1890s, established a thriving agricultural enterprise on his Windermere Ranch instead (City of La Mirada n.d.). Meanwhile, what is now Cerritos became closely tied to the settlement of Artesia, which was founded by the Los Angeles Immigration and Land Cooperative in 1875 on 500 acres of former Stearns Ranchos land (Cenovich 1995).

Throughout the late 19th and early 20th centuries, southeastern Los Angeles County and northwestern Orange County remained rural, with the cultivation of citrus fruits, walnut, and avocado being the leading "industry" after earlier attempts at growing corn, hay, and vineyards proved unsuccessful (ATSF 1983:226). Closer to the APE, Buena Park and Cerritos became known for dairy farming, while in La Mirada the Windermere Ranch grew lemons, grapefruit, and oranges but made itself famous with olive oil (Cenovich 1995; City of La Mirada n.d.; Discover La Mirada n.d.; Visit Buena Park n.d.). With population increasing rapidly throughout the second half of the 19th century, Orange County was split from Los Angeles County in 1889, with Coyote Creek forming the conceptual boundary between the two (Armor 1921).

In the late 1890s, petroleum was discovered in the rolling hills in southeastern Los Angeles County, starting an oil boom that culminated during the 1920s, when nearby Santa Fe Springs distinguished itself as the most productive oil field in California (Da Rold 1979:10). The heavy concentration of the petroleum industry caused other industrial establishments to gravitate to the area as well. However, the development of the eight-mile-long industrial district from Santa Fe Springs to Buena Park, including the northeastern corner of Cerritos and the southwestern corner of La Mirada, did not occur until the 1960s-1970s (USGS 1949-1981; NETR Online 1952-1980).

During the 1920s-1940s, while the Cerritos and La Mirada areas continued to be dominated by agriculture, Buena Park embarked on a more colorful path to fame and distinction. It began in 1920,

when Walter and Cordelia Knott arrived from central California and established a berry farm on 20 acres of leased land (Knott's Berry Farm 2020). The small venture was a success, and the Knotts were able to purchase the land in 1927 and expand the farm (*ibid.*). Meanwhile, they continuously added new amenities to the property, first a roadside fruit stand that was later replaced by a permanent market, then a tea room/restaurant that gradually grew from 20 seats to 350 seats, and finally, in 1940, a "ghost town" to entertain patrons waiting for tables (*ibid.*). By the late 1940s, Knott's Berry Farm had become a major tourist attraction and a pioneer in the family entertainment industry that thrives in Buena Park today.

For much of the Los Angeles Basin, the post-WWII boom marked a dramatic departure from previous development patterns, when suburban tracts and associated shopping centers became the driving force in regional growth. Situated on the southeastern rim of the fast-growing metropolis, the large stretches of farmlands along the Los Angeles-Orange county line became a prime target for tract home developers during the 1940s-1950s. In 1953, the heirs of Andrew McNally sold most of the Windermere Ranch to the Pioneer Land and Realty Company of Los Angeles for residential subdivision (City of La Mirada n.d.). Three years later, 13 residential tracts had been built with a total of 7,800 homes, and the majority had been sold (*ibid.*). In response to the rapid urbanization, the formerly agrarian communities incorporated as cities one by one, the City of Buena Park in 1953, followed by Cerritos in 1956 (initially as the City of Dairy Valley) and La Mirada in 1960 (as the City of Mirada Hills).

DEVELOPMENT ALONG THE APE

Historic sources consulted for this study suggest that the land use history of the APE largely followed the development pattern of the surrounding area throughout the historic period. In the late 19th century, the cultural landscape of the project vicinity reflected a typical rural settlement model, featuring a widely spaced web of roads lined by scattered buildings (USGS 1896-1901). In the immediate area of the APE, however, little evidence of any settlement activities was noted at that time, as the area was characterized as marshland along the unbridled, winding courses of East Fork and North Fork of Coyote Creek (*ibid.*). Other than a road running between La Mirada and Buena Park, the only man-made features known to be present in the APE were the two major railroads, the Southern Pacific and the Santa Fe (*ibid.*).

The Southern Pacific line, the older of the two, was a part of the railroad's Santa Ana Branch (USGS 1896-1901). It was constructed as a spur line from Los Angeles to Anaheim in 1873-1875, shortly before the completion of the Southern Pacific mainline from San Francisco to Los Angeles and Yuma, Arizona, and was later extended to Santa Ana in 1877 (Brigandi n.d.). The ultimate goal for the line was to reach San Diego, but the plan was thwarted by the strong personal enmity between Collis P. Huntington of the Southern Pacific and James Irvine I, whose Irvine Ranch encompassed much of present-day southern Orange County (*ibid.*). As a result, Santa Ana has remained the terminus of this Southern Pacific branch line ever since.

The Santa Fe line across this area was a part of the company's mainline between Los Angeles and Riverside, which was built in 1885-1888 by the Riverside, Santa Ana and Los Angeles Railway Company, a Santa Fe subsidiary (Seidman 1930:13; Gustafson and Serpico 1992:113). As a major feeder to the company's primary artery in southern California, which ran from Needles to San Diego by way of San Bernardino, the Los Angeles-Riverside line was an important part of the Atchison, Topeka and Santa Fe Railway's historic "invasion" of California in the 1880s, where the Southern Pacific Railroad had enjoyed a virtual monopoly on modern transportation.

Also in 1888, the Santa Fe completed its "Surf Line" between Santa Ana and San Diego (USGS 1901; Gustafson and Serpico 1992). Three years later, the Santa Fe abandoned a section of its original artery between Temecula and Fallbrook after repeated washouts during eight years of operation (Gustafson and Serpico 1992). After that, the rail line across the APE serviced concurrently as a part of the Los Angeles-San Diego mainline. Meanwhile, it also became a part of the Santa Fe's famed "Kite-Shaped Track," a popular excursion route between Los Angeles and the Inland Empire, and a leading tourist attraction in southern California during the 1890s-1910s (*ibid.*:65; Duke 1991:8).

During the early and mid-20th century, development along the APE was largely dictated by the progress of flood control works on Coyote Creek. Prior to that, Coyote Creek was prone to seasonal flooding in the winter, with the Hawaiian Gardens area further downstream to the southwest generally taking the brunt of the overspill (Cenovich 1995). After a disastrous regional flood in 1914, the Los Angeles County Flood Control Act of 1915 authorized the establishment of the Los Angeles County Flood Control District and the construction of flood control infrastructure throughout the county, much of which was finished by 1937, just in time for the "great flood" of 1938 (KCET 2014; LACDPW n.d.).

According to historic maps, East Fork of Coyote Creek was diverted further to the east prior to 1932 and merged with Brea Creek into a channel that approached the APE from the east, as the latter continues to do today (USGS 1935a; 1942a). Within the APE, the segment of Coyote Creek to the southwest of the confluence with Brea Creek was first channelized along its current course in 1941-1945 (USGS 1935b; 1942b; 1945). The segment to the northeast of the confluence, which originally approached the APE in a generally north-south direction, was realigned to its current course and channelized sometime between 1954 and 1963 (USGS 1896b; NETR Online 1954; 1963). In 1966-1967 the U.S. Army Corps of Engineers undertook a major upgrading of the Coyote Creek flood control system, and the concrete-lined channel along the APE and its associated features, such as the concrete diversion walls within the channel, evidently resulted from this upgrading (NETR Online 1963; 1972; USACE 1966-1967; 2017).

Prior to the channelization of Coyote Creek, the closest notable development around the project location consisted of a Standard Oil Company pumping station and an associated tank farm in La Mirada, approximately 1,000 feet northwest of the APE, and a residential neighborhood in the northern portion of Buena Park, about the same distance to the southeast (USGS 1923-1945). In the early 1950s, additional residential tracts were developed along the northeastern portion of the APE, in both Buena Park and La Mirada (NETR Online 1953; 1954). During the 1960s-1970s, the large spans of farmland along the rest of the APE was turned into an industrial district, and a number of spur lines were built from the Southern Pacific and Santa Fe mainlines to serve the newly completed warehouses (USGS 1949-1981; NETR Online 1952-1980).

As mentioned above, the two spur lines that extended into the APE for indirect effects were constructed in 1963-1965 and 1965-1972 (NETR Online 1963; 1972; USGS 1964-1972). The Santa Fe spur line that crosses the APE near the confluence of Coyote and Brea Creeks was evidently constructed in 1963-1964 (NETR Online 1963; USGS 1964b; 1965). Since the 1960s, although further development continued to occur on properties adjacent to the APE, especially in the industrial district, the overall land use pattern in the area has remained essentially unchanged (NETR Online 1963-2016; Google Earth 1994-2020).

DESCRIPTION OF CULTURAL RESOURCES

In summary of the research results outlined above, three linear features of historical origin located partially within the APE, two of them previously recorded into the California Historical Resources Inventory and the third recorded during this study, are the only potential "historic properties" identified during this study. These three cultural resources are listed below:

- Site 19-186110/30-176630 Southern Pacific Railroad/Union Pacific Railroad
- Site 19-186804/30-176663 Atchison, Topeka and Santa Fe Railway/Burlington Northern Santa Fe Railway
- (Site number pending) Coyote Creek (East Fork) Channel

Descriptions of these resources in the APE and brief summaries of their history are presented on standard DPR forms attached to this HRER in Appendix 2. In brief, the two major rail lines, the minor spur line, and the channel were constructed at vastly different times in history, ranging from the 1870s to the 1960s, but the components of these features within the APE, in their current configuration and appearance, all resulted from the upgrading of the Coyote Creek Channel by the U.S. Army Corps of Engineers in 1966-1967.

The small segments of the former Southern Pacific Santa Ana Branch and the former Atchison, Topeka and Santa Fe Los Angeles-Riverside mainline lying across the APE are represented primarily by a steel girder bridge and a reinforced concrete bridge, respectively, resting on concrete abutments and concrete piers connected to diversion walls in the Coyote Creek Channel, all of which evidently date to the 1966-1967 era (see Appendix 2). As elsewhere, other features of railroad operations, such as the rails, have also been replaced and upgraded over the years to meet modern transportation standards.

As working infrastructure components of late historic origin and standard design/construction, the segments of the former Southern Pacific Santa Ana Branch and the former Atchison, Topeka and Santa Fe Los Angeles-Riverside mainline in the APE do not demonstrate any distinguished historical, architectural, engineering, aesthetic, or informational qualities of their own and retain little integrity to relate to the period of significance for the two railroad empires in California, namely the late 19th and early 20th centuries. Therefore, despite the prominent role that the Southern Pacific and the Santa Fe played in the growth of southern California and in the social and political history of the state during that period, these segments do not contribute to the overall significance of the railroads and do not appear eligible for listing in the National Register of Historic Places (NRHP).

The Santa Fe spur line recorded as a part of Site 19-186804/30-176663 during this study was originally built in 1963-1964, well after the heydays of the steel rails. As a minor component of the Santa Fe's nationwide system, and being of late historic origin, the spur line does not have a documented, close association with any historic figure or event of recognized importance in history and does not exhibit any other special merits or data potential, nor does it contribute to the significance of the Atchison, Topeka and Santa Fe Railway as a whole. As such, this spur line does not appear eligible for the NRHP.

The Coyote Creek (East Fork) Channel as it appears today is a result of the nationwide flood-control endeavors by the U.S. Army Corps of Engineers in the post-WWII era, which is arguably a pattern of events that substantially influenced the course of modern American history. However, as one of the many flood-control projects completed by the Corps in the Los Angeles Basin region at the time, the channel does not demonstrate a unique or particularly notable association with this pattern of events or to any other theme in national, state, or local history.

Meanwhile, the channel is not known to be closely associated with any specific event or person of recognized historic significance, either, and the utilitarian features associated with the channel do not embody any special merits in design, construction, technology, or aesthetics or the work of a prominent architect, engineer, or builder. Furthermore, the channel holds little promise for important historical or archaeological data for the study of flood control works from the 1960s era, a subject that is well documented in existing literature and archival records. In summary, the Coyote Creek (East Fork) Channel does not appear to meet any of the criteria for listing in the NRHP.

Based on these considerations, the current study concludes that none of the three linear features of historical origin recorded within the APE appear to be eligible for the NRHP, and none of them qualify as "historic properties," as defined by 36 CFR 800.16(l).

FINDINGS AND CONCLUSIONS

LIST OF FINDINGS

- Historic properties listed in the NRHP:

  None.

- Historic properties previously determined eligible for the NRHP:

  None.

- Resources previously determined *not* eligible for the NRHP: Ten bridges listed in the Caltrans Historic Bridge Inventory as Category 5 (see HPSR Attachment B):

Bridge #	*Location*	*Map Ref.**
53 0279	Interstate Highway 5	Map 3:6-7
53C0149	S. Firestone Boulevard	Map 3:6
53C0150	N. Firestone Boulevard	Maps 3:6-7
53C0410	Artesia Boulevard	Map 3:4
53C0815	Valley View Avenue (southbound)	Map 3:2
53C1491	Trojan Way	Map 3:7
53C1515	Knott Avenue	Maps 3:7-8
55C0039R	Valley View Avenue (northbound)	Map 3:2
55C0071	Stage Road over Coyote Creek	Maps 3:10-11
55C0198	La Mirada Boulevard	Map 3:12

* See HPSR Attachment A.

- Historic properties determined eligible for the NRHP as a result of the current study:

  None.

- Resources determined *not* eligible for the NRHP as a result of the current study:

Site #	*Description*	*Status Code*	*Map Ref.**
19-186110/30-176630	Southern Pacific Railroad	6Z	Map 3:6
19-186804/30-176663	Atchison, Topeka and Santa Fe Railway	6Z	Maps 3:8 and 3:10
(Number pending)	Coyote Creek (East Fork) Channel	6Z	Maps 3:1-12

* See HPSR Attachment A.

- Properties for which further study is needed: None.

CONCLUSION

In summary, three linear features of historical origin were identified as lying partially within the APE. The portions of these resources in the APE were evaluated against the criteria for listing in the NRHP, and none of them appear to be eligible. Therefore, they do not meet the definition of "historic properties." Bai "Tom" Tang, who meets the Professionally Qualified Staff Standards in Section 106 PA Attachment 1 as a Principal Architectural Historian, has determined that all other properties present within the APE meet the criteria for exemption from evaluation, as outlined in Section 106 PA Attachment 4.

REFERENCES

Armor, Samuel
1921 *History of Orange County, California: with Biographical Sketches of the Leading Men and Women of the County Who Have Been Identified with its Earliest Growth and Development from the Early Days to the Present*; Part 1. Historic Record Company, Los Angeles.

ATSF (Atchison, Topeka, and Santa Fe Railway Company)
1983 History of the Santa Fe Coastlines. Atchison, Topeka, and Santa Fe Railway Company, Chicago, Illinois.

Bandy, Marcy, and Maurice Bandy
1998 *Saddleback Ancestors: Rancho Families of Orange County, California*; revised edition. Orange County Genealogical Society, Orange, California.

Brigandi, Phil
n.d. The Southern Pacific–Orange County's First Railroad. https://www.ochistoryland.com/sprr.

Buena Park Historical Society
n.d. History. http://www.buenaparkhistory.org/wp/history/.

Cenovich, Marilyn
1995 The Story of Cerritos: A History in Progress. http://menu.ci.cerritos.ca.us/collections/local_history/cl_lhStory.htm.

City of La Mirada
1970 Building permit records for 14701-14765 Industry Circle. On file, City of La Mirada Building and Safety/Engineering Department.
n.d. History of La Mirada. https://www.cityoflamirada.org/about-us/history.
County of Los Angeles
n.d. Property Assessment Information System. http://maps.assessor.lacounty.gov/.
Da Rold, Joe (ed.)
1979 *The History of Santa Fe Springs, California*. Santa Fe Springs Historical Committee, Santa Fe Springs, California.
Discover La Mirada
…n.d. La Mirada Historical Timeline. http://www.discoverlamirada.com/history/.
Duke, Donald
1991 "Kite-Shaped Track Excursion." *The Branding Iron* (Los Angeles) Summer:8-12.
Google Earth
1994-2020 Aerial photographs of the project vicinity; taken in 1994, 2002, 2003, 2005-2011, and 2013-2020. Available through the Google Earth software.
Gustafson, Lee, and Philip Serpico
1992 *Santa Fe Coast Lines Depots, Los Angeles Division*. Omni Publications, Palmdale, California.
KCET
2014 The Other River that Defined L.A.: The San Gabriel River in the 20th Century. https://www.kcet.org/shows/departures/the-other-river-that-defined-la-the-san-gabriel-river-in-the-20th-century.
Knott's Berry Farm
2020 The History of Knott's Berry Farm. https://www.knotts.com/blog/2020/april/the-history-of-knotts-berry-farm.
LACDPW (Los Angeles County Department of Public Works)
n.d. Los Angeles County Flood Control District, 100 Years. https://dpw.lacounty.gov/LACFCD/web/.
NETR (Nationwide Environmental Title Research) Online
1952-2016 Aerial photographs of the project vicinity; taken in 1952-1954, 1963, 1972, 1980, 1994, 2002-2005, 2009, 2010, 2012, 2014, and 2016. http://www.historicaerials.com.
Seidman, Laah
1930 The History of the Santa Fe Railway in California. M.A. thesis, Department of History, University of Southern California, Los Angeles.
Strawther, Larry
2012 *A Brief History of Los Alamitos and Rossmoor*. The History Press, Charleston, South Carolina.
USACE (United States Army Corps of Engineers)
1966-1967 Los Angeles Drainage Area, Coyote Creek Channels: Coyote Creek Channel Upstream from North Fork (as-built plans). Digital copies provided by U.S. Army Corps of Engineers, Los Angeles District.
2017 Periodic Inspection Report No. 2, Generalized Executive Summary: Coyote Creek 3 Levee System, Los Angeles County and Orange County, California (NLD System ID #3805010025). https://www.spl.usace.army.mil/Portals/17/docs/LeveeSafetyProgram/Coyote_Creek_3_Levee_System_PI_Report_No_2_ES_M_20180319.pdf.
USGS (United States Geological Survey, U.S. Department of the Interior)
1896a Map: Anaheim, Calif. (15', 1:62,500); surveyed in 1894.

1896b Map: Downey, Calif. (15', 1:62,500); surveyed in 1893-1894.
1901 Map: Anaheim, Calif. (15', 1:62,500); 1896 edition revised in 1900.
1923a Map: Artesia, Calif. (6', 1:24,000); surveyed in 1923.
1923b Map: Whittier, Calif. (6', 1:24,000); surveyed in 1923.
1935a Map: Coyote Hills, Calif. (1:31,680); surveyed in 1932.
1935b Map: Los Alamitos, Calif. (1:31,680); surveyed in 1932.
1942a Map: Anaheim, Calif. (15', 1:62,500); aerial photographs taken in 1939.
1942b Map: Downey, Calif. (15', 1:62,500); aerial photographs taken in 1941.
1945 Map: Artesia, Calif. (6', 1:24,000); 1923 edition revised in 1933 and 1945.
1949a Map: Los Alamitos, Calif. (7.5', 1:24,000); aerial photographs taken in 1947, field-checked in 1949.
1949b Map: Whittier, Calif. (7.5', 1:24,000); aerial photographs taken in 1947, field-checked in 1949.
1952 Map: La Habra, Calif. (7.5', 1:24,000); aerial photographs taken in 1947, field-checked in 1950.
1964a Map: La Habra, Calif. (7.5', 1:24,000); aerial photographs taken in 1963, field-checked in 1964.
1964b Map: Los Alamitos, Calif. (7.5', 1:24,000); aerial photographs taken in 1963, planetable surveys in 1964.
1965 Map: Whittier, Calif. (7.5', 1:24,000); aerial photographs taken in 1963, planetable surveys in 1965.
1972a Map: La Habra, Calif. (7.5', 1:24,000); 1964 edition photorevised in 1972.
1972b Map: Los Alamitos, Calif. (7.5', 1:24,000); 1964 edition photorevised in 1972.
1972c Map: Whittier, Calif. (7.5', 1:24,000); 1965 edition photorevised in 1972.
1981a Map: La Habra, Calif. (7.5', 1:24,000); 1964 edition photorevised in 1978.
1981b Map: Los Alamitos, Calif. (7.5', 1:24,000); 1964 edition photorevised in 1978.
1981c Map: Whittier, Calif. (7.5', 1:24,000); 1965 edition photorevised in 1978.

Visit Buena Park

2020 History of Buena Park, California. https://www.visitbuenapark.com/p/tools/about-us/history-of-buena-park/history.

APPENDIX 1
PERSONNEL QUALIFICATIONS

PRINCIPAL ARCHITECTURAL HISTORIAN
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, University of California, Riverside.
1987	M.A., American History, Yale University, New Haven, Connecticut.
1982	B.A., History, Northwestern University, Xi'an, China.
2000	"Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994	"Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002	Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997	Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993	Project Historian, Archaeological Research Unit, U.C. Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, U.C. Riverside.
1988-1993	Research Assistant, American Social History, U.C. Riverside.
1985-1988	Research Assistant, Modern Chinese History, Yale University.
1985-1986	Teaching Assistant, Modern Chinese History, Yale University.
1982-1985	Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

HISTORIAN/ARCHITECTURAL HISTORIAN
Terri Jacquemain, M.A.

Education

2004	M.A., Public History and Historic Resource Management, University of California, Riverside.
2002	B.S., Anthropology, University of California, Riverside.
2001	Archaeological Field School, University of California, Riverside.
1991	A.A., Riverside Community College, Norco Campus.

Professional Experience

2003-	Project Historian/Architectural Historian, CRM TECH, Riverside/Colton, California.
2002-2003	Teaching Assistant, Religious Studies Department, University of California, Riverside.
2002	Interim Public Information Officer, Cabazon Band of Mission Indians.
2000	Administrative Assistant, Native American Student Programs, University of California, Riverside.
1997-2000	Reporter, *Inland Valley Daily Bulletin*, Ontario, California.
1991-1997	Reporter, *The Press-Enterprise*, Riverside, California.

Membership

California Preservation Foundation.

APPENDIX 2

DPR 523 FORMS

Recorded by Stephen O'Neil **Date** February 6, 2020 Continuation √ Update
Form Prepared by Bai "Tom" Tang **Date** October 28, 2020

This update pertains to a small segment of the Union Pacific Railroad across the Coyote Creek Channel (East Fork) in the City of La Mirada, Los Angeles County. The main feature of the railroad at this location is an approximately 80-foot-long and 18-foot-wide steel girder bridge supported by concrete abutments and two concrete piers. The open deck of the bridge carries a single set of tracks, flanked by metal guardrails.

Formerly a part of the Santa Ana Branch of the Southern Pacific Railroad, the rail line was first laid across the present-day La Mirada area in 1873-1875, shortly before the completion of the Southern Pacific mainline from San Francisco to Los Angeles and Yuma, Arizona. However, the railroad bridge at this location, in its current configuration, evidently dates to the 1966-1967 era, when the concrete-lined channel along Coyote Creek was completed by the U.S. Army Corps of Engineers. As elsewhere, other features of railroad operations, such as the rails, have also been replaced and upgraded over the years to meet modern transportation standards.

As a working infrastructure feature of late historic origin and standard design/ construction, the small portion of Site 19-186110/30-176630 across Coyote Creek does not demonstrate any distinguished historical, architectural, engineering, aesthetic, or informational qualities of its own, and retains little integrity to relate to the period of significance for the former Southern Pacific Railroad, namely the late 19th and early 20th centuries. Therefore, despite the prominent role that the Southern Pacific played in the growth of southern California and in the social and political history of the state during that period, the portion of Site 19-186110/30-176630 at this location does not contribute to the overall significance of the site and does not appear eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.

UTM Coordinates:

Zone 11 ; 405,925 **mE**/ 3,748,884 **mN**

Report Citation:

Bai "Tom" Tang
2020 Historic Property Survey Report, OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, California

References:

Brigandi, Phil
n.d. The Southern Pacific–Orange County's First Railroad. https://www.ochistoryland.com/sprr.

NETR (Nationwide Environmental Title Research) Online
1963, 1972 Aerial photographs. http://www.historicaerials.com.

USACE (United States Army Corps of Engineers)
1966-1967 Los Angeles Drainage Area, Coyote Creek Channels: Coyote Creek Channel Upstream from North Fork (as-built plans). Digital copies provided by U.S. Army Corps of Engineers, Los Angeles District.

Recorded by Stephen O'Neil **Date** February 6, 2020 ___Continuation √ Update
Form Prepared by Bai "Tom" Tang **Date** October 28, 2020



Former Southern Pacific Railroad (Santa Ana Branch) across the Coyote Creek Channel, view to the northeast

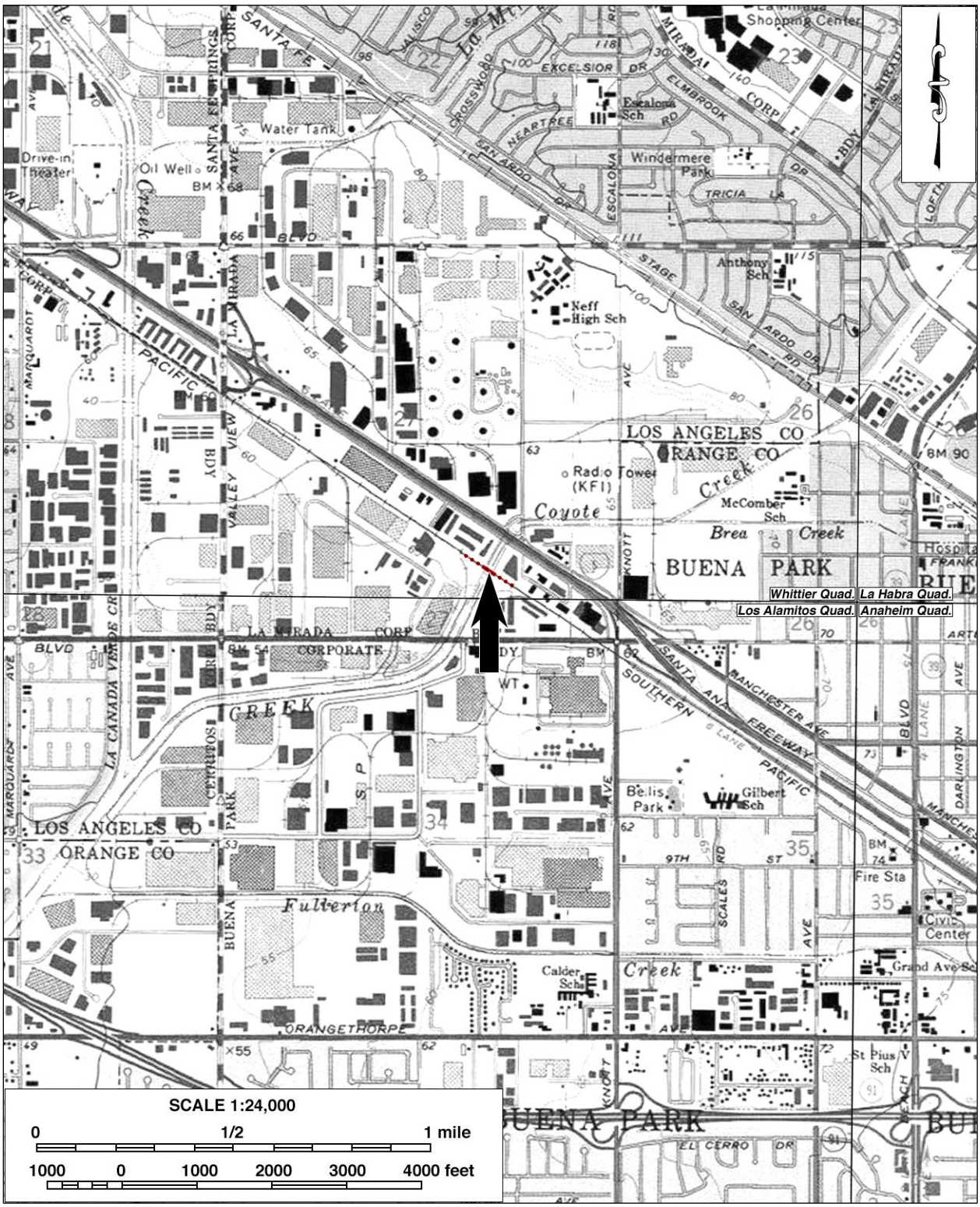
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186110/30-176630 (Update)
HRI #
Trinomial

Page 3 **of** 3 ***Resource Name or #** (Assigned by recorder)

***Map Name:** Anaheim, La Habra, Los Alamitos, and Whittier, Calif.
***Scale:** 1:24,000 ***Date of Map:** 1981



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 19-186110
HRI #
Trinomial 30-176630
NRHP Status Code
Other Listings
Review Code _____ Reviewer _____ Date _____

Page 1 of 14 *Resource Name or #: (Assigned by Recorder) C-Los Angeles-A-1

P1. Other Identifier: Union Pacific Railroad

*P2. Location: ☐ Not for Publication ☒ Unrestricted *a. County Los Angeles and Orange

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad see below Date _____ T _____; R _____; ____ ¼ of ____ ¼ of Sec ____; _____ B.M.

c. Address _____ City _____ Zip _____

d. UTM: (Give more than one for large and/or linear resources) Zone: _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)

This segment of the railroad is located on the following USGS quads: Los Angeles (1966, PR 1981), South Gate (1964, PR 1981), Whittier (1965, PR 1981), Los Alamitos (1964, PR 1981), and Anaheim (1965, PR 1981).

*P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

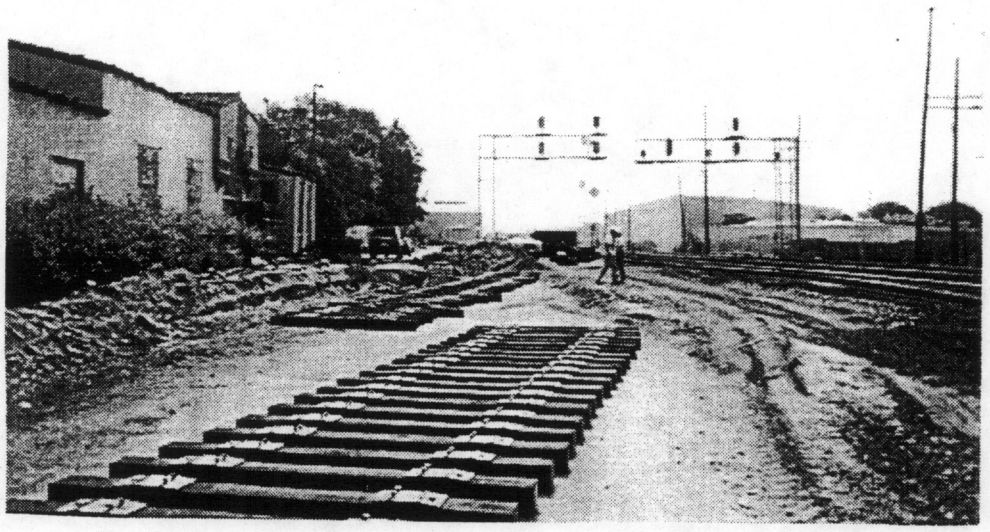
The Union Pacific Railroad is a standard gauge railroad which runs through the Los Angeles area. It is part of a larger resource, the Union Pacific Railroad line. Numerous associated features include railroad stations, sidings, spurs, and railyards.

The rail lines that were included in our survey areas were all acquired by Union Pacific, but were originally other railroad lines. These include the Southern Pacific, the Pacific Electric, the Los Angeles and San Pedro railroad, and the Los Angeles and Salt Lake Railroad. The Southern Pacific through Los Angeles area was constructed in the 1870s, and originally ran south from Los Angeles through Watts and Compton to Willmington, and east from Los Angeles through Alhambra, San Gabriel, Puente, Pomona and on through Colton before heading toward Yuma. (See continuation sheet.)

*P3b. Resource Attributes: (List attributes and codes) HP39. Other - Railroad

*P4. Resources present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (View, date, accession #) Railroad overview, Los Angeles

*P6. Date Constructed/Age and Sources: ☒ Historic ☐ Prehistoric ☐ Both
1870s-present

*P7. Owner and Address:
Union Pacific Railroad

*P8. Recorded by: (Name, affiliation, and address) S. Ashkar
Jone s & Stokes Associates, Inc.
2600 V Street, Suite 100
Sacramento, CA 95818

*P9. Date Recorded: 6/22/99

*P10. Survey Type: (Describe)
Cursory and Intensive pedestrian surveys

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Jones & Stokes. 1999. Cultural Resources Inventory Report for Williams Communications, Inc. Proposed Fiber Optic Cable System Installation Project, Los Angeles to Anaheim, Los Angeles and Orange Counties

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List): _____

DPR 523A (1/95) *Required Information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 19-186110
HRI # 30-176630

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 14

*NRHP Status Code

*Resource Name or # (Assigned by recorder) C-Los Angeles-A-1

B1. Historic Name: Southern Pacific Railroad

B2. Common Name: Union Pacific Railroad

B3. Original Use: railroad B4. Present Use: railroad

*B5. Architectural Style:

*B6. Construction History: (Construction date, alterations, and date of alterations)

Major portion of track and associated spurs, sidings, and station were constructed between 1869 and 1905. The tracks are currently in use and maintenance and replacement continue.

*B7. Moved? [X] No [ ] Yes [ ] Unknown Date: Original Location:

*B8. Related Features:

Numerous sidings, spurs, stations and railyards

B9a. Architect: b. Builder:

*B10. Significance: Theme: Railroad Area: California, U.S.

Period of Significance: 1869 to present Property Type: railroad Applicable Criteria: A, B

(Discuss imporance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Portions of this railroad are additions to the first transcontinental railroad. Other portions were instrumental in the development of Los Angeles as a major business center, or other communities. The modern Union Pacific Railroad system is made up of other, often smaller historic railroads that helped to form the economy and population of Southern California. The rail system enabled the transportation of goods to ports and the emmigration of large numbers of people. The railroad is also associated with a number of important historical figures, including the Big Four (Mark Hopkins, Collis P. Huntington, Leland Stanford, and Charles Crocker). Therefore, the historic railroad is eligible for NRHP listing under Criteria A and B.

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References:

B13. Remarks:

(Sketch Map with north arrow required.)

*B14.Evaluator: S. Ashkar Jones & Stokes

2600 V Street, Suite 100 Sacramento, CA 95818-1914

*Date of Evaluation: 6/22/99

(This space reserved for official comments.)

P3a. Description

Another Southern Pacific Line headed southeast from Watts through Norwalk and Buena Park to Santa Ana.

The Pacific Electric was formed in 1902 by Henry E. Huntington, the nephew of railroad mogul Collis P. Huntington. In direct competition with the Southern Pacific Railroad, the Pacific Electric conntected 42 incorporated cities within a 35 mile radius of Los Angeles. The trains were know as the Big Red Cars, and prior to the popularization of automobiles provided the preferred means of transportation. At it's peak in 1926, the company operated 1,164 miles of track throughout the Los Angeles area. Henry Huntington sold his shared to Southern Pacific in 1910, and in 1911 Southern Pacific merged with other local railways to create the Pacific Electric Railway, which provided expanded the system. With the rise of the automobile, the Pacific Electric sold its passenger service to Metropolitan Coach Lines, which operated busses in 1953. Service between Los Angeles and Long Beach officially ended on April 8, 1961, signaling the end of the Big Red Cars. The rail line located within our project areas included the portion that rund down the center of Alhambra Avenue, though some of the rails have been removed. (Crump 1970.)

The Los Angeles and San Pedro Railroad was incorporated in February 1868 to build the first railroad in Southern California and construction began in 1869. The line connected the port of Wilmington and the city of Los Angeles. When the Southern Pacific was built through Los Angeles, the Southern Pacific received subsidies and the stock of the Los Angeles and San Pedro Railroad. The Southern Pacific consolidated with the Los Angeles and San Pedro Railroad in 1874 and the track became the Harbor Division of the Southern Pacific. (Dunscomb 1967; Robinson 1978.)

The San Pedro, Los Angeles and Salt Lake Railroad Company was formed in 1901 for the purpose of constructing a rail line between Los Angeles and Salt Lake City. The line formally opened on May 1, 1905. The line extended north from Los Angeles to Las Vegas and on to Salt Lake City. Other lines ran from Los Angeles south to Wilmington via Bells and Workman, and east from Los Angeles through Pico, Clayton, paralleling the Southern Pacific line through Walnut, Sprada and Ontario and dipping south from there towards Riverside. The name was shortened to the Los Angeles and Salt Lake in 1916. In 1921, the line became the southwestern arm of the Union Pacific. (Fickewirth 1992; Hofsommer 1986; Myrick 1992.)

The Southern Pacific eventually absorbed the smaller rail lines and the Southern Pacific emerged as the name for the system in 1884 when the Southern Pacific Company of Kentucky was incorporated. In the 1990s, the Union Pacific acquire the holdings of the Southern Pacific Company.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

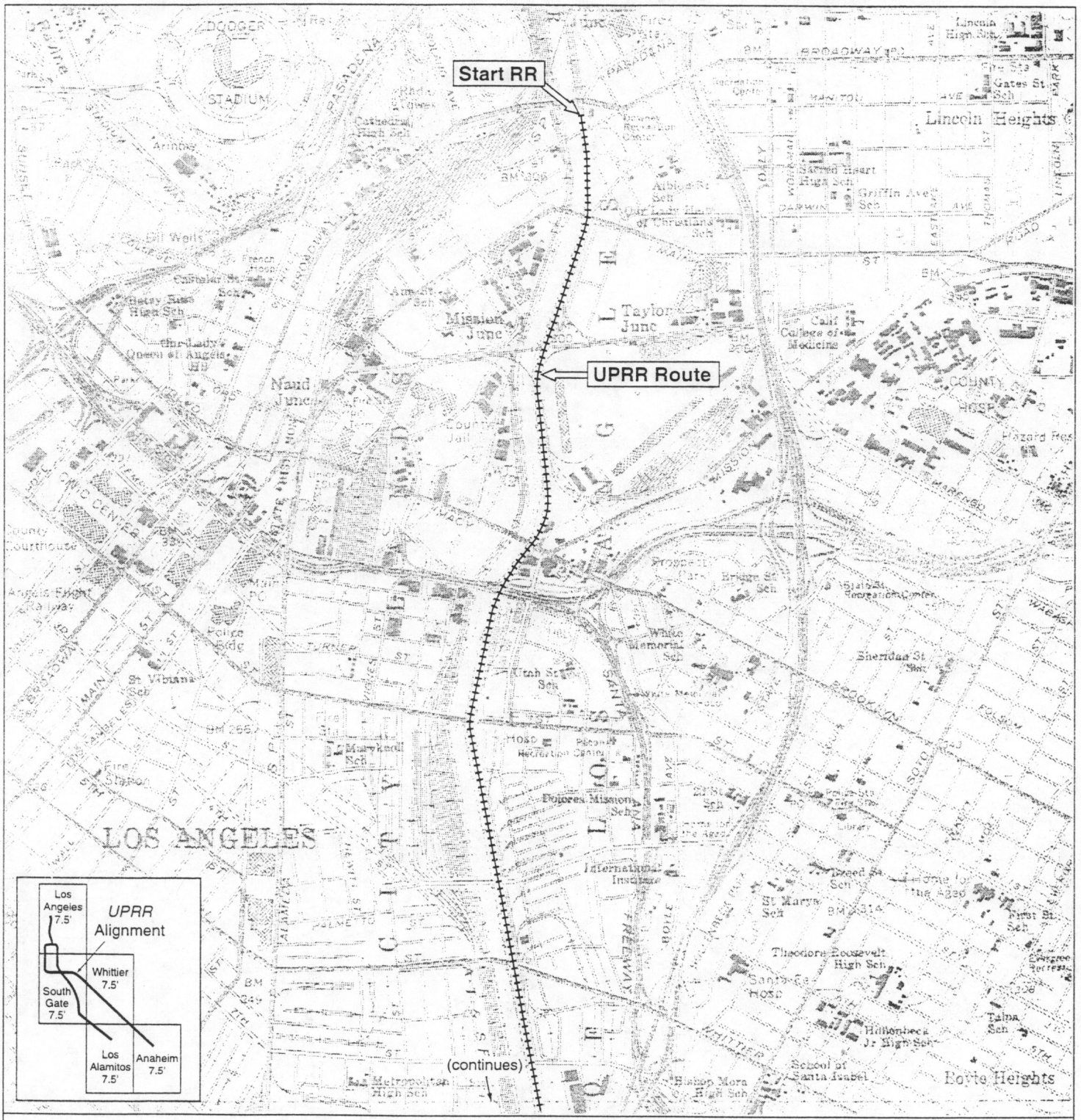
LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

Page 4 of 14

*Resource Name or #: UPRR Route

*Map Name: Los Angeles, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

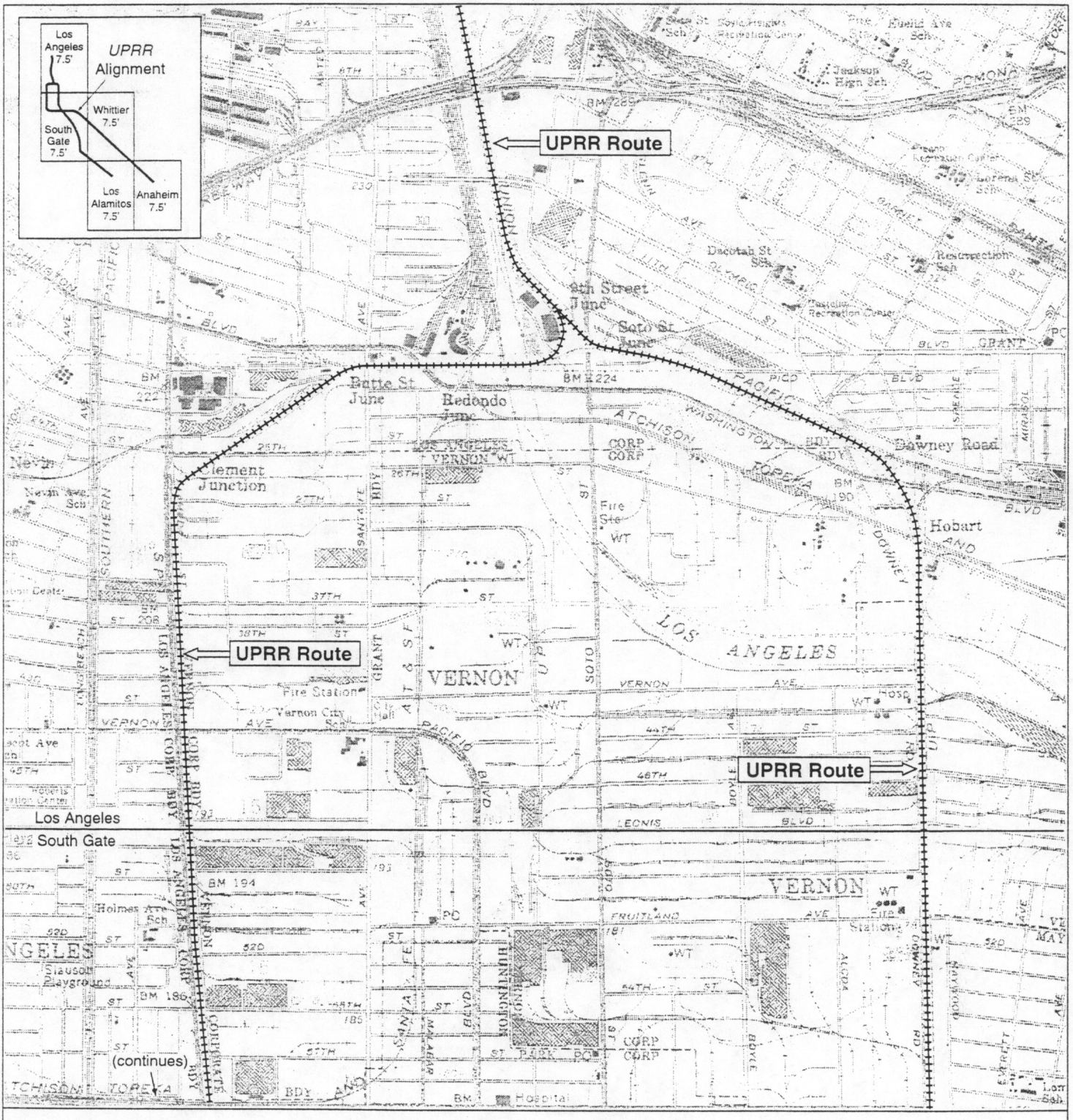
LOCATION MAP

Primary # 19-186110
HRI #
Trinomial 30-176630

Page 5 of 14

*Resource Name or #: UPRR Route

*Map Name: Los Angeles and South Gate, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



Base map: USGS 7.5'-series Los Angeles (1966, PR 1981), and South Gate, (1964, PR 1981) California quadrangles

DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

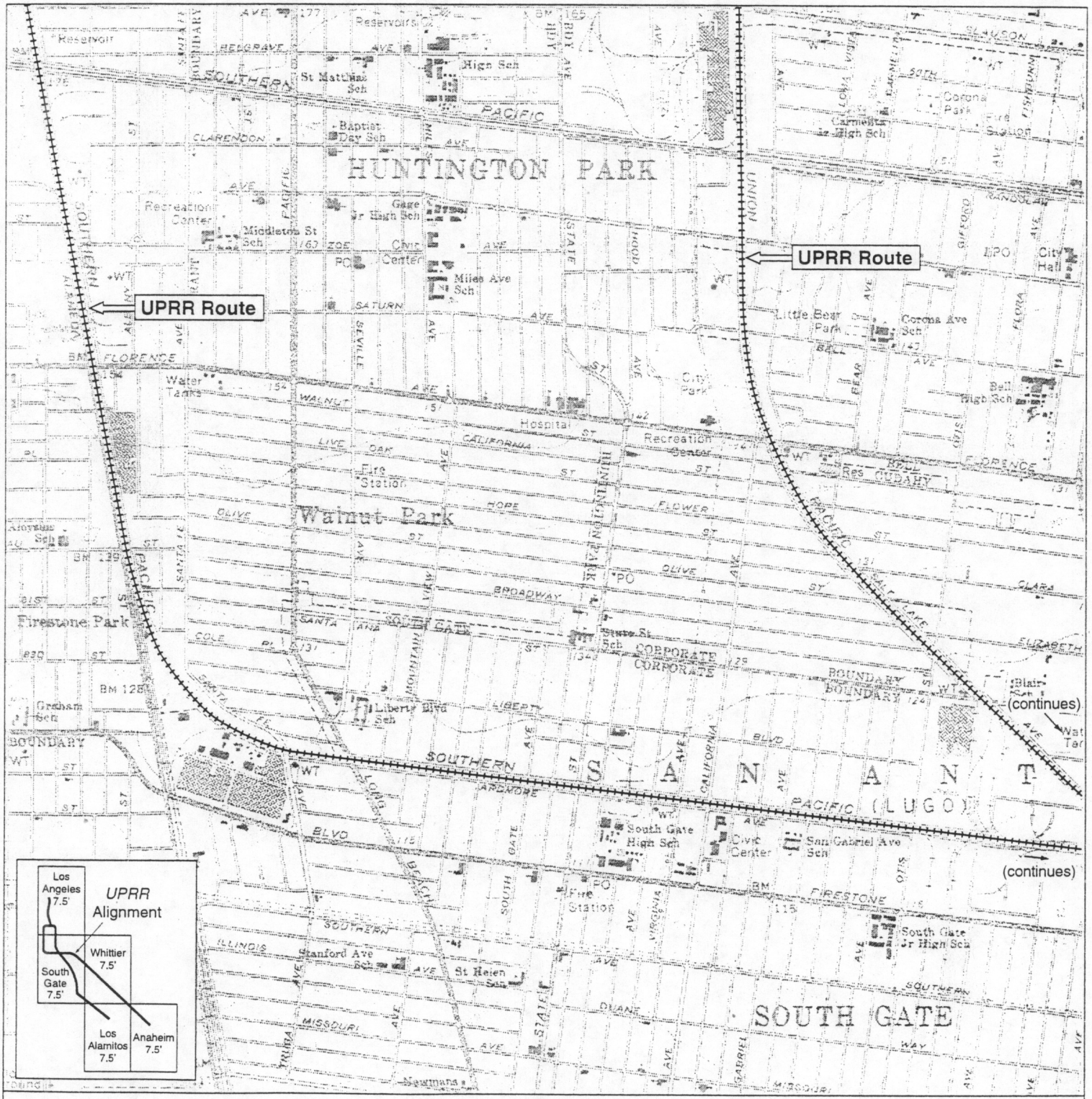
LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

Page 6 of 14

*Resource Name or #: UPRR Route

*Map Name: South Gate, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



Base map: USGS 7.5'-series South Gate, California quadrangle (1964, PR 1981)

DPR 523J (1/95)

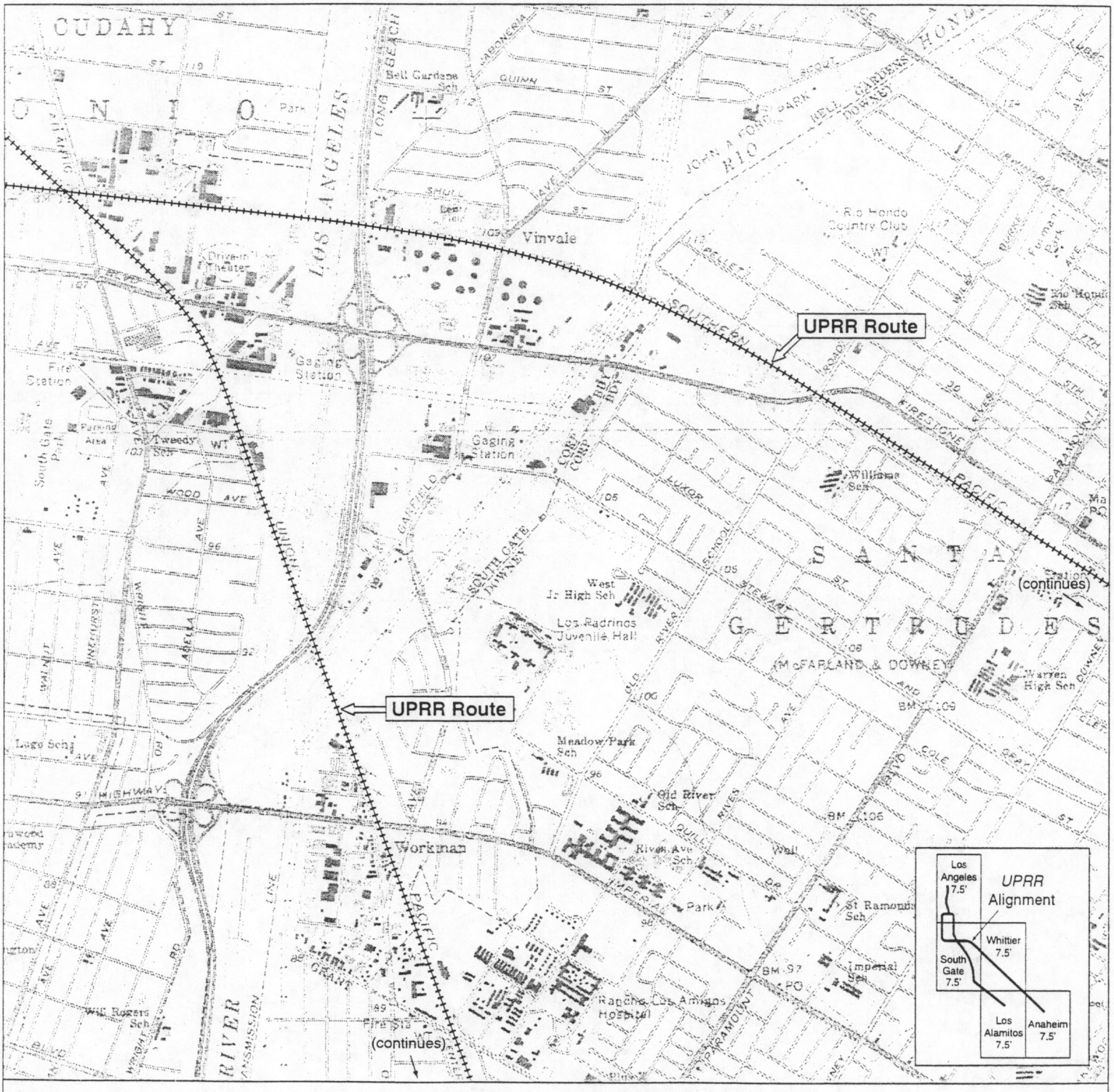
*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186110
HRI #
Trinomial 30-176630

Page 7 of 14
*Resource Name or #: UPRR Route
*Map Name: South Gate, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



Base map: USGS 7.5'-series South Gate, California quadrangle (1964, PR 1981)

DPR 523J (1/95)

*Required information

19-186110

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

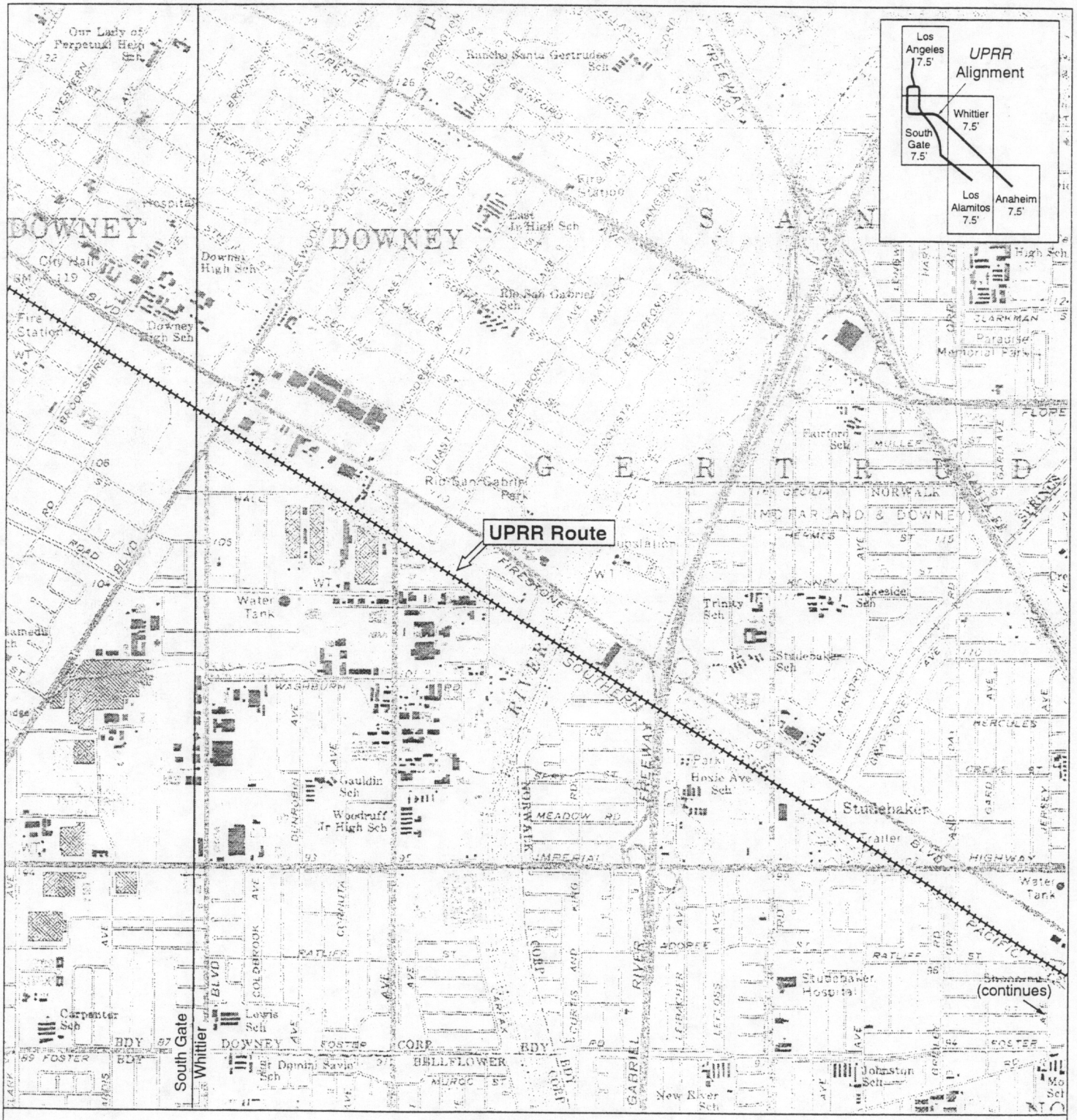
LOCATION MAP

Primary # 30-176630
HRI #
Trinomial

Page 8 of 14

*Resource Name or #: UPRR Route

*Map Name: South Gate and Whittier, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



0 1,000 2,000 3,000 4,000 5,000
feet
Scale = 1:24,000

Base map: USGS 7.5'-series South Gate (1964, PR 1981), and Whittier (1965, PR 1981), California quadrangles

14i
TN mN

DPR 523J (1/95)

*Required information

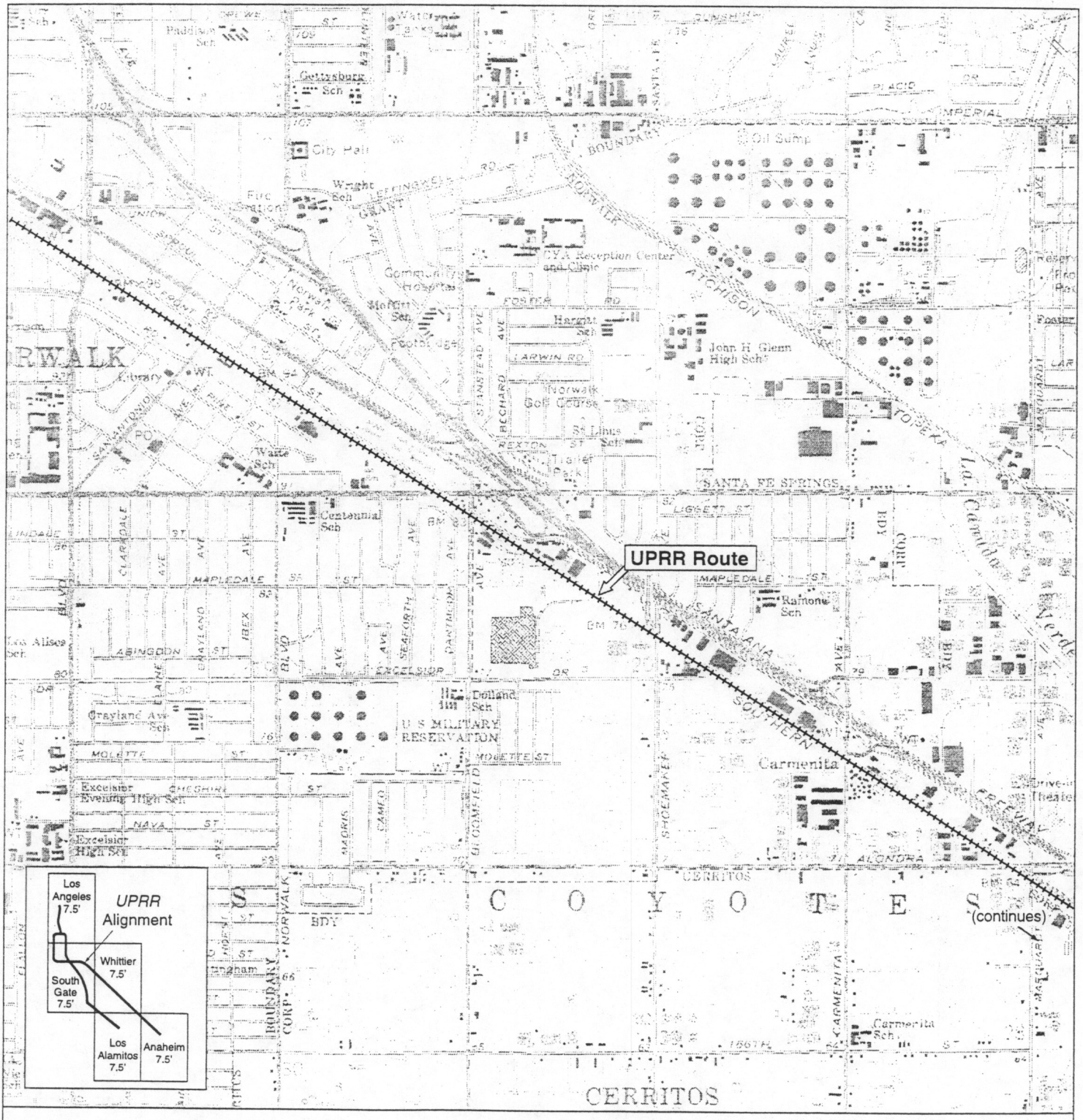
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

*Resource Name or #: UPRR Route

*Map Name: Whittier, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981


UPRR Route
(continues)
Los Angeles 7.5'
UPRR Alignment
Whittier 7.5'
South Gate 7.5'
Los Alamitos 7.5'
Anaheim 7.5'
SANTA FE SPRINGS
CERRITOS
Carmenita
U S MILITARY RESERVATION
Norwalk Golf Course
Joan H Glenn High Sch
Centennial Sch
Dolland Sch
Ramona Sch
Carmenita Sch
Excelsior Evening High Sch
Excelsior High Sch
Los Alisos Sch
Gettysburg Sch
Wright Sch
Waite Sch
St Linus Sch
Harnett Sch
Foster Sch
Paddison Sch
Library
City Hall
Fire Station
Community Hospital
VA Reception Center and Clinic
Oil Sump
Tiger Park
Golf Course
Grayland Ave Sch
Norwalk Blvd
Santa Ana Freeway
Southern Pacific
Atchison Topeka
Pioneer Blvd
Imperial Hwy
Alondra Blvd
Foster Rd
Larwin Rd
Rosecrans Ave
Marquardt Ave
Carmenita Rd
Maple Dale St
Excelsior Dr
Abingdon St
Molette St
Nava St
Gridley Rd
Pioneer Blvd
Placid Ave
Laurel Ave
Santa Fe Ave
Union Pacific
Norwalk Blvd
Clarkdale Ave
Seaforth Ave
Dartmoor Ave
Shoemaker Ave
Gridley Rd
Bloomfield Ave
Maris Ave
Camino
Elaine
Rex
Bex
Gaylord
Excelsior
Abingdon
Molette
Nava
Alondra
Cerritos
Foster
Larwin
Rosecrans
Marquardt
Carmenita
Pioneer
Gridley
Shoemaker
Bloomfield
Maris

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

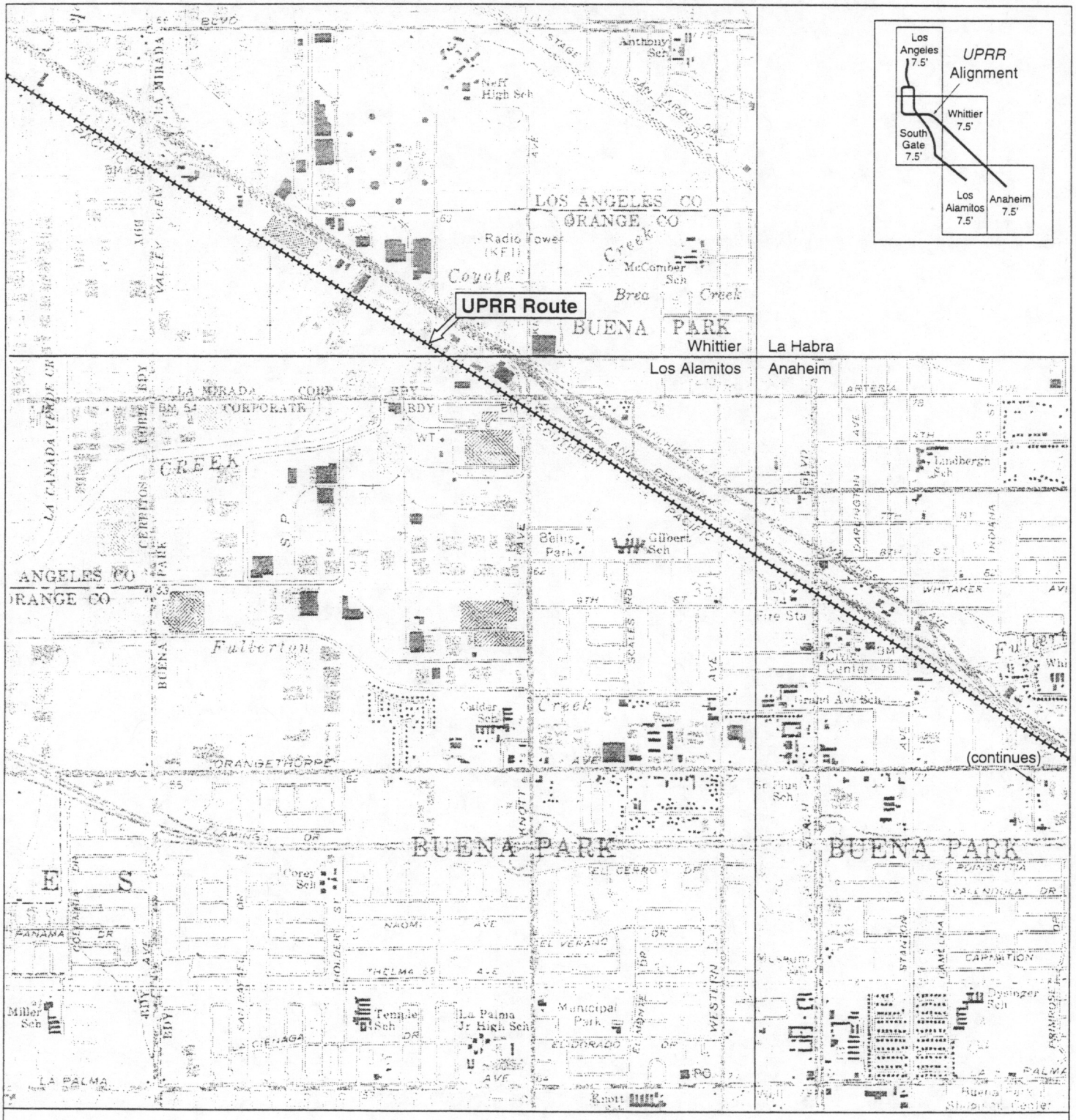
LOCATION MAP

Primary # 19-186110
30-176630
HRI #
Trinomial

Page 10 of 14

*Resource Name or #: UPRR Route

*Map Name: Whittier, Los Alamitos, Anaheim California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



Base map: USGS 7.5'-series Whittier, Los Alamitos, and Anaheim, California quadrangles (PR 1981)

DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

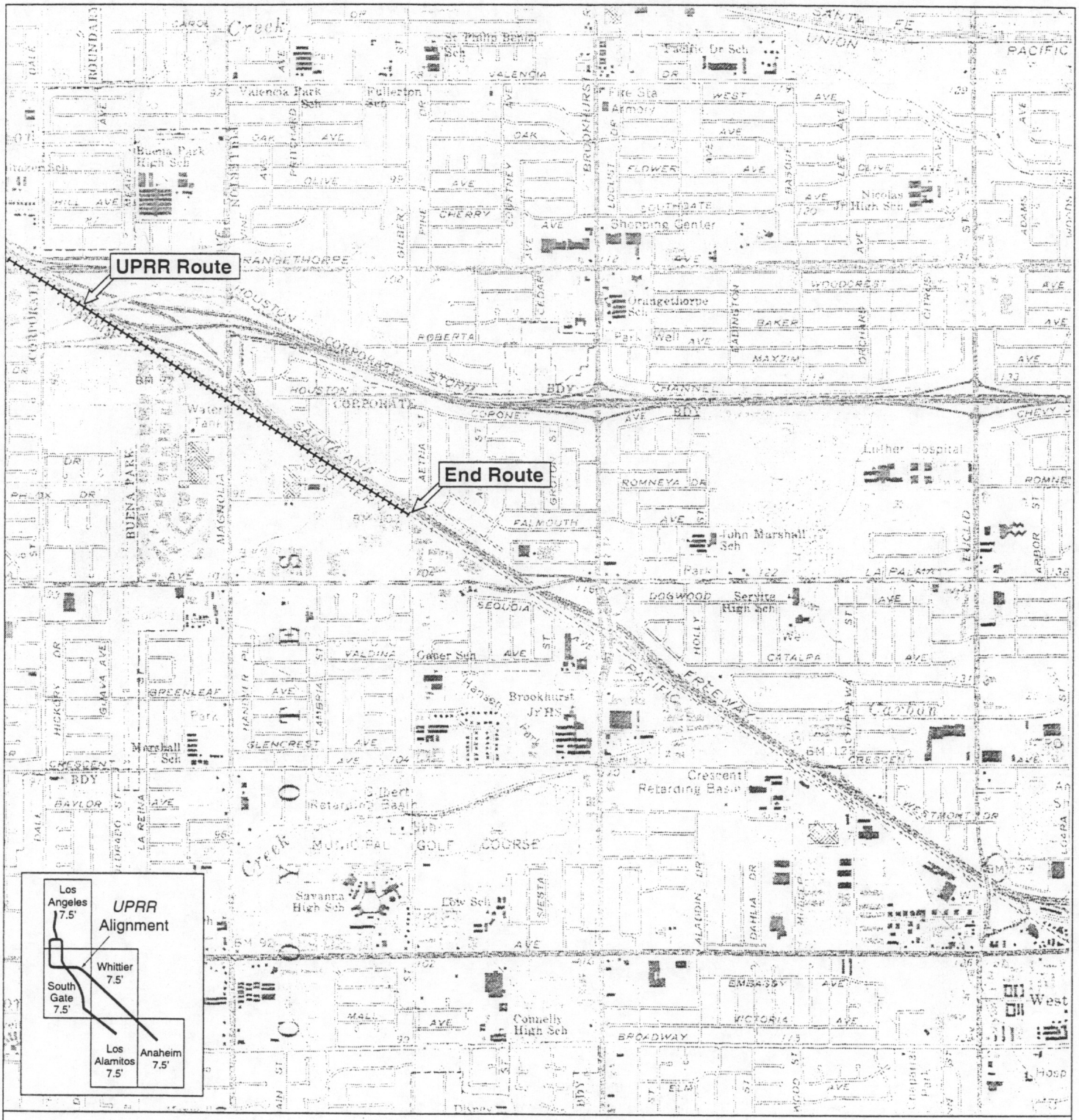
LOCATION MAP

Primary # 19-186110
HRI #
Trinomial 30-176630

Page 11 of 14

*Resource Name or #: UPRR Route

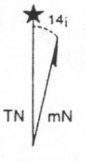
*Map Name: Anaheim California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981





0 1,000 2,000 3,000 4,000 5,000
feet
Scale = 1:24,000

Base map: USGS 7.5'-series Anaheim, California quadrangle (1965; PR 1981)



DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

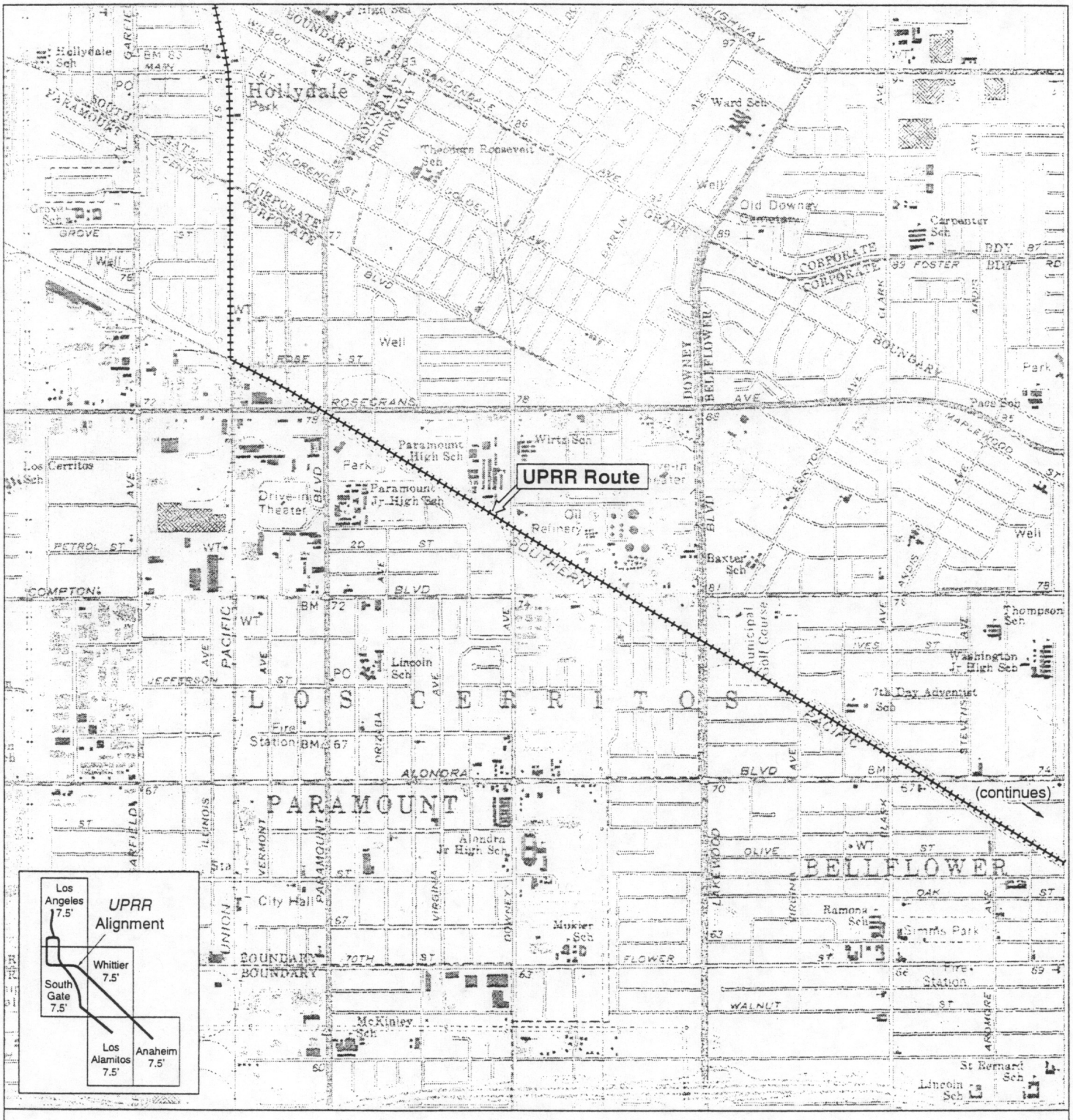
LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

Page 12 of 14

*Resource Name or #: UPRR Route

*Map Name: South Gate, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



0 1,000 2,000 3,000 4,000 5,000
feet
Scale = 1:24,000

Base map: USGS 7.5'-series South Gate, California quadrangle (1964, PR 1981)

TN mN

DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

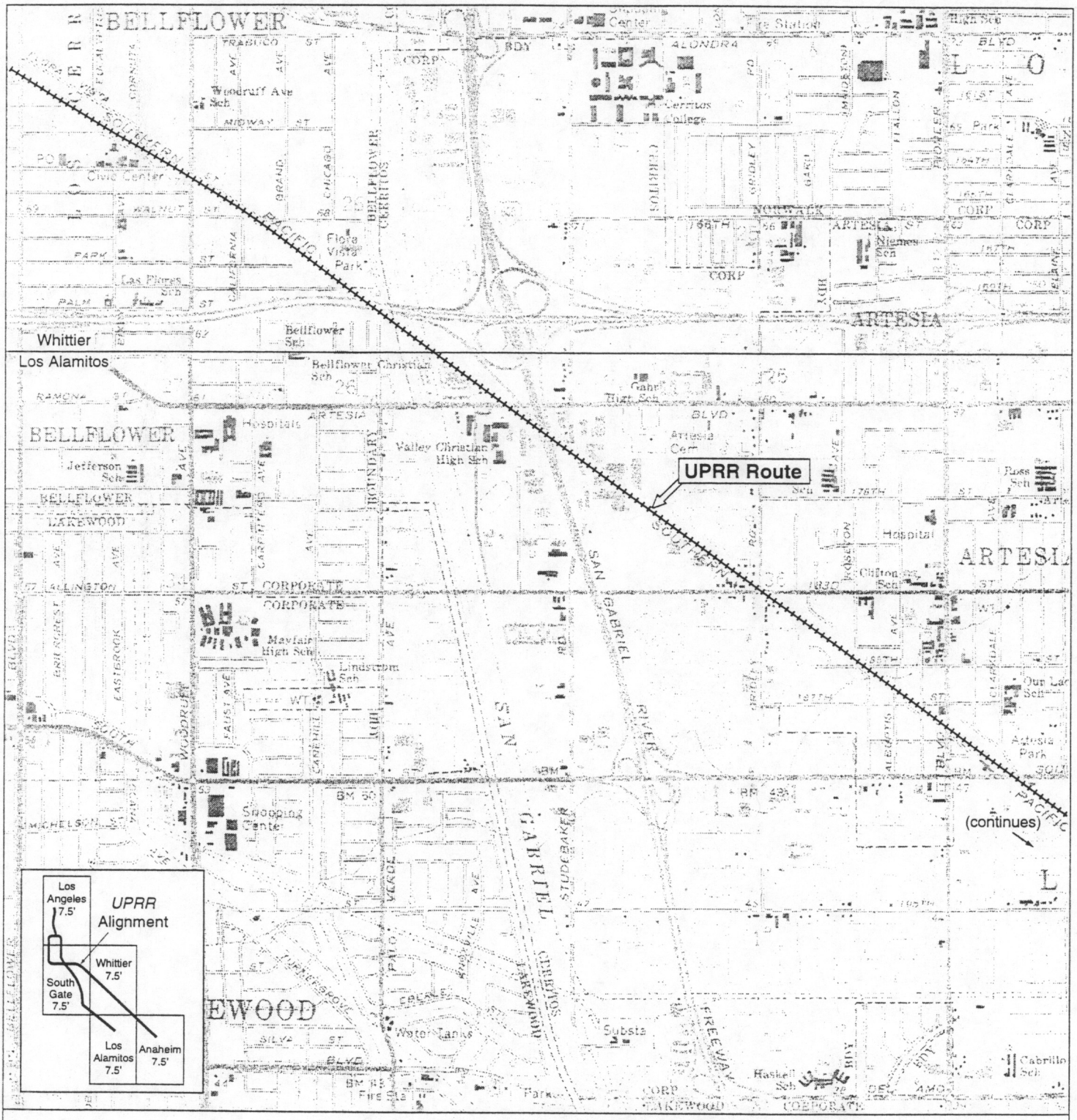
LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

Page 13 of 14

*Resource Name or #: UPRR Route

*Map Name: Whittier and Los Alamitos, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



0 1,000 2,000 3,000 4,000 5,000
feet
Scale = 1:24,000

Base map: USGS 7.5'-series Whittier (1965, PR 1981), and Los Alamitos (1964, PR 1981),California quadrangles

TN mN 14i

DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

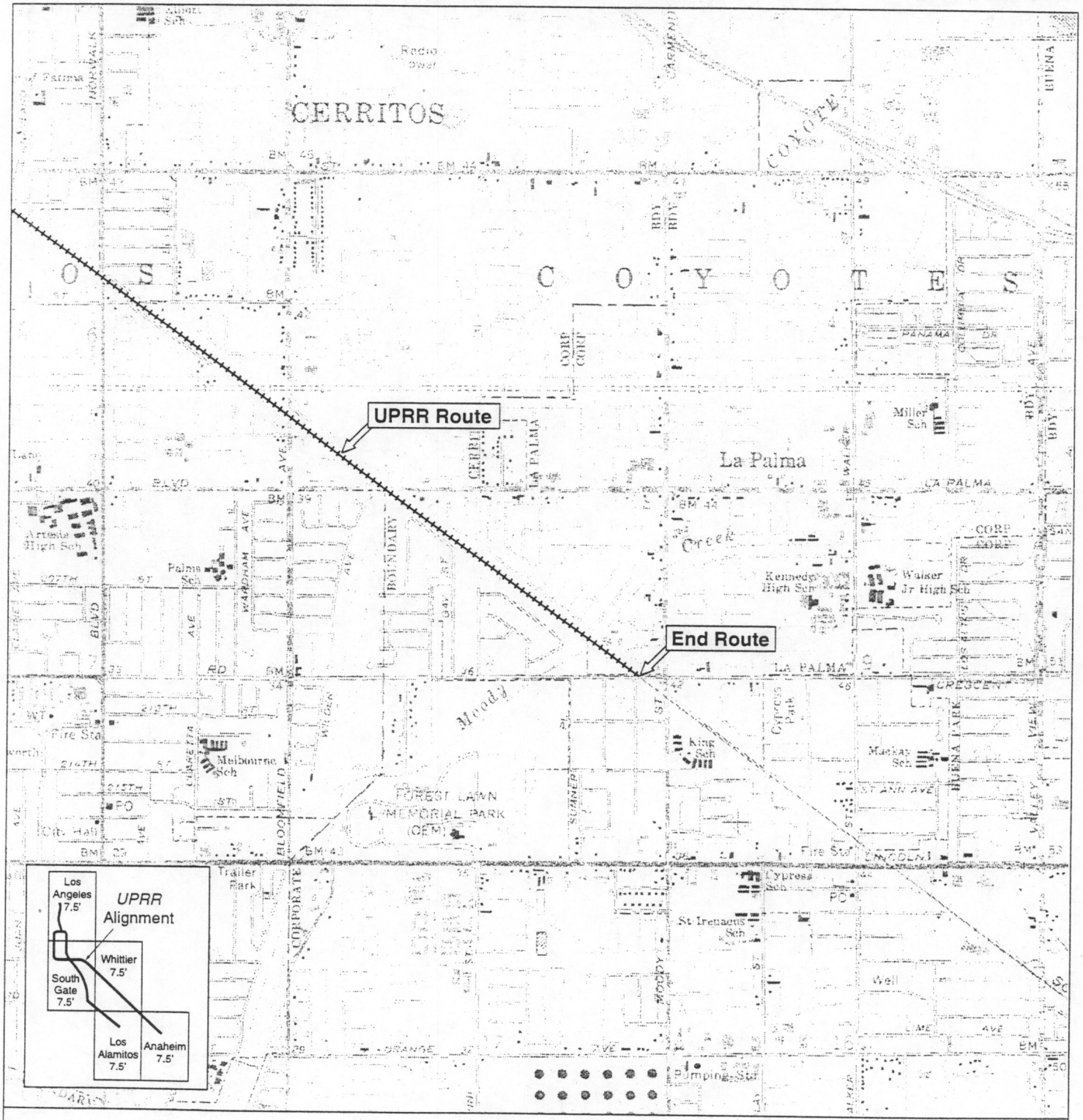
LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

Page 14 of 14

*Resource Name or #: UPRR Route

*Map Name: Los Alamitos, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



Base map: USGS 7.5'-series Los Alamitos, California quadrangle (1964, PR 1981)

DPR 523J (1/95)

*Required information

Applied EarthWorks, Inc.

PRIMARY RECORD

Primary # 19-186110 Supplement
HRI # 30-176630
Trinomial
NRHP Status Code

Other Listings Union Pacific Railroad/Hobart Tower
Review Code **Reviewer** **Date**

P1. Temporary Number/Resource Name: Hobart Tower

P2. Location: **a. County** Los Angeles , California ☐ Not for publication ☒ Unrestricted
b. USGS 7.5' Quad Los Angeles, CA. **Date** 1966, photorevised 1981, 1994
T. 2S, **R.** 13W ; **of** **of** **of** **Sec.** Not sectioned
c. Address: **City** **Zip**
d. Zone 11 , 3763940 **mE/** 388860 **mN**
e. Other Locational Data (e.g., parcel #, legal description, directions to resource, additional UTMs, etc., when appropriate): The segment of the Union Pacific Railroad recorded previously under this Primary Number is located on the following USGS quads: Los Angeles, (1966, photorevised 1981); South Gate (1964, photorevised 1981); Whittier (1965, photorevised 1981); Los Alamitos (1964, photorevised 1981); and Anaheim (1965, photorevised 1981). The Hobart Tower is specifically located east of Downey Road and north of E. 26th St., west of the Hobart Yard and east of the Union Pacific Railroad line; the Burlington Northern Santa Fe Railroad is located south of the Hobart Tower.

P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): The Union Pacific Railroad is a standard gauge railroad that runs through the Los Angeles area. It is part of a larger resource, the Union Pacific Railroad line. Numerous associated features include railroad stations, sidings, spurs, and rail yards. This supplemental record is specifically for the Hobart Tower (see Building, Structure, Object Record).

P3b. Resource Attributes (List attributes and codes): HP 39 – other: Railroad; HP 17– Railroad Switching Tower

P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of district ☐ Other:

P5. Photograph or Drawing: (Photograph required for buildings, structures, and objects.) See Site Record dated 6/22/99.

P6. Date Constructed/Age and Source: ☐ Prehistoric ☒ Historic ☐ Both

P7. Owner and Address: Union Pacific Railroad.

P8. Recorded by (Name, affiliation, address): D. Livingstone and C. Hamilton, Applied EarthWorks, Inc. 3292 E. Florida Ave., Suite A, Hemet, CA 92544.

P9. Date Recorded: 19 June 2002

P10. Type of Survey: ☐ Intensive ☐ Reconnaissance ☒ Other:
Describe: Recordation of Hobart Tower.

P11. Report Citation (Provide full citation or enter "none"): *The Alameda Corridor Hobart Tower 1926–2002, Hobart Junction, Los Angeles, CA.* Prepared by Applied EarthWorks, Inc. for the Alameda Corridor Transportation Authority, April 2002.

***Attachments:** ☐ None ☒ Location Map ☒ Site Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☒ Photograph Record ☒ Other: Building, Structure, and Object Record.

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: Hobart Tower
B2. Common Name: Hobart Tower
B3. Original Use: Railroad Signal Tower **B4. Present Use:** Signal Communication
***B5. Architectural Style:** Mediterranean
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Hobart Tower began operation in September 1926; it is the last operating signal tower west of Omaha, Nebraska. Hobart is an interlocking tower, so named for the interlocking machine or interlocker, an electro-mechanical device used to control signals and tracks switching. Hobart Tower retains the original interlocker, as well as its original architectural integrity.

***B7. Moved?** ☒ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
***B8. Related Features:** Features related to the Hobart Tower consisted of tracks, cantilever signal light bridges, and track switches, all of which were renovated or removed in 2001. The cantilever lights and track switches operated 350 to 1,000 ft north, south, east, and west of Hobart Tower. The original tracks abutted Hobart Tower approximately 12–15 ft to the west and 20–30 ft to the south and east.

B9a. Architect: Los Angeles & Salt Lake Railroad Co. **b. Builder:** Los Angeles & Salt Lake Railroad Co.
***B10. Significance: Theme** Railroad Transportation **Area** Los Angeles, California.
Period of Significance 1926–2001 **Property Type** Railroad Tower **Applicable Criteria** HP17
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
Hobart Tower is an architectural feature of the Union Pacific Railroad (Site No. 19-186110/30-17660), a historic railroad considered eligible for listing on the NRHP. Hobart Tower is the last officially operating signal tower west of Omaha, Nebraska. For more than 75 years, Hobart Tower controlled signal and switching operations for freight and passenger trains of the Los Angeles & Salt Lake, Union Pacific, Atchison Topeka & Santa Fe, Burlington Northern Santa Fe, Metrolink and Amtrak railways. With the closure of nearby Dayton, Mission, and Redondo Junction towers, Hobart Tower became the last of its kind. Beginning January 2002, Hobart's signal and switching functions shifted to the authority of the regional operating center in San Bernardino. Hobart's geographical scope included most of the main railroad lines between the Port of Los Angeles and Hobart Yard, freight shipping facilities considered to be among the busiest in North America.

B11. Additional Resource Attributes: (List attributes and codes) HP11 – Engineering Structure

***B12. References:**

Gustafson, Lee, and Phil Serpico
1992 *Coast Lines Depots*. Omni Publications, Palmdale, California.
Robertson, Donald
1998 *Encyclopedia of Western Railroad History, Vol. 4.* Caxton Printers, Ltd., Idaho.
Alameda Corridor Transportation Authority (ACTA) and Applied EarthWorks, Inc. (Æ)
2002 *Hobart Tower, 1926–2002.* Alameda Corridor Transportation Authority, Carson, California.
Jones & Stokes
1999 Cultural Resources Inventory Report for Williams Communications, Inc. Site record for 19-186110/30-176630.

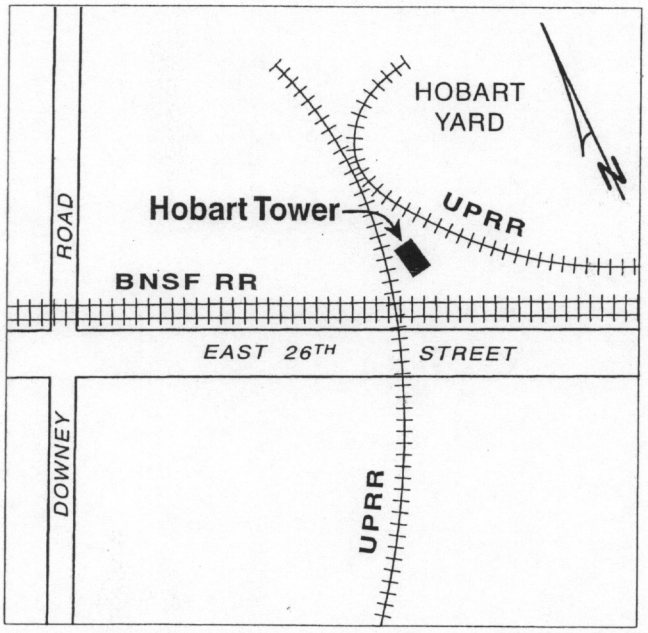
B13. Remarks: Hobart Tower ceased formal signaling operations January 2002. There is no immediate plan to preserve or relocate the building and its equipment. Hobart Tower is in imminent danger of neglect.

(This space reserved for official comments.)

B14. Evaluator: M.C. Hamilton, Senior Historical Archaeologist and Architectural Historian, Applied EarthWorks, Inc., 3292 East Florida Ave., Suite A, Hemet, CA 92544

***Date of Evaluation:** January 2002

Temporary Number/Resource Name: Hobart Tower



Applied EarthWorks, Inc.

PHOTOGRAPH RECORD

Primary # 19-186110 Supplement
HRI #/Trinomial 30-176630

Temporary Number/Resource Name: Hobart Tower
Project Name: Alameda Corridor **Roll #** Hobart-1 **Photographer:** D. Livingstone
Camera Format: 35 mm **Lens Size:** 28 mm
Film Type and Speed: Color slide **Year:** 2002
Negatives Kept at: 3292 E. Florida Ave., Suite A, Hemet, CA 92544

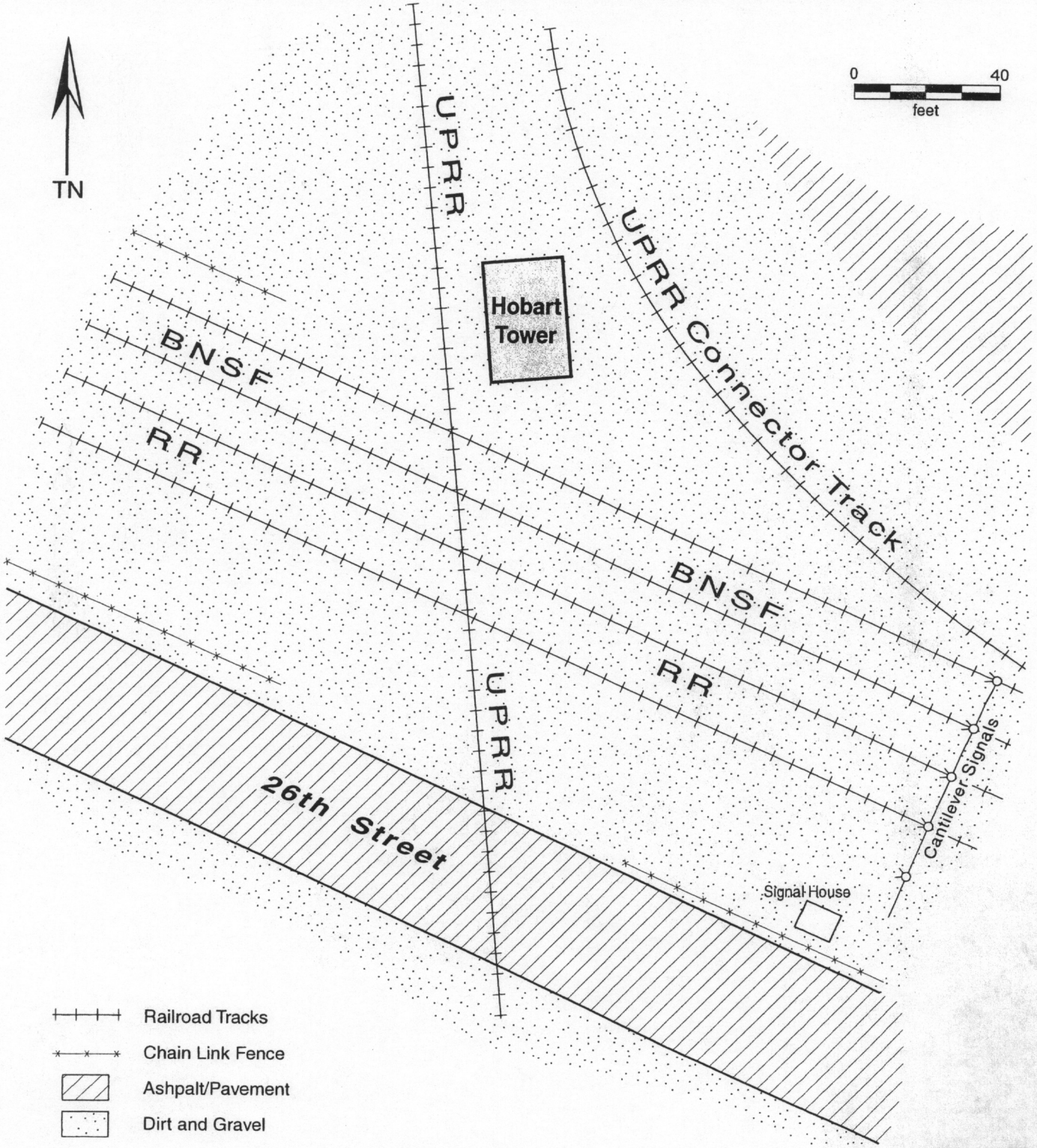
Mo.	Day	Time	Exp./ Frame	Subject/Description	View Toward	Accession #
2	10	1150	2	Hobart Tower: oblique view of southeast corner of tower.	SW	
2	10	1155	3	Hobart Tower: oblique view of southeast corner of tower.	SW	
2	10	1210	14	Hobart Tower: frontal view of west side.	E	
2	10	1212	15	Hobart Tower: frontal view of west side.	E	

Applied EarthWorks, Inc.

SITE MAP SHEET

Primary # 19-186110 Supplement
HRI #/Trinomial 30-176630

Page 5 **of** 6
Temporary Number/Resource Name: Hobart Tower
Map Name: Hobart Tower Site Map **Scale:** 1" = 40' **Date:** June 2002



Applied EarthWorks, Inc.

LOCATION MAP SHEET

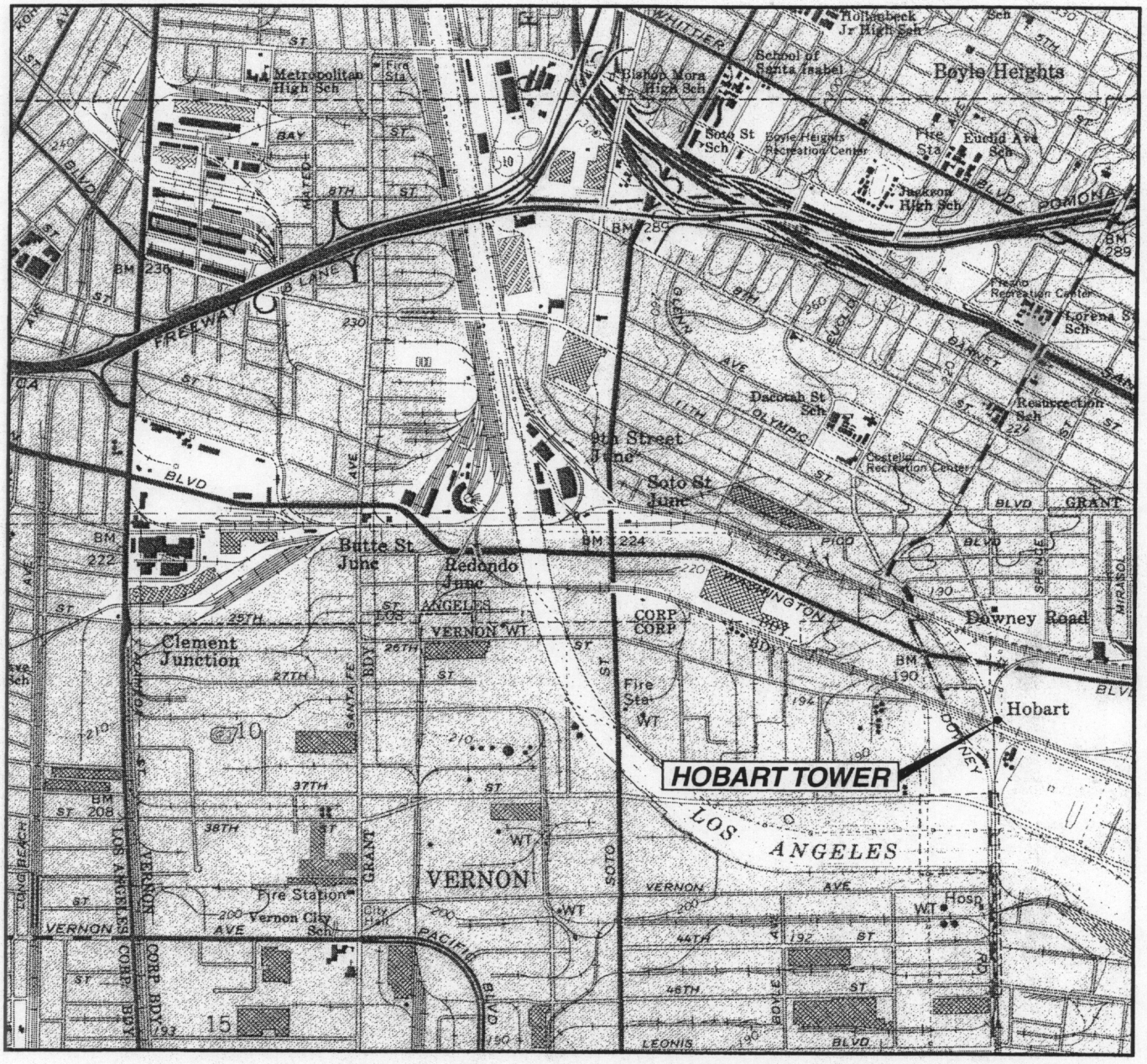
Primary # 19-186110 Supplement

HRI #/Trinomial 30-176630

Page 6 **of** 6

Temporary Number/Resource Name: Hobart Tower

Map Name: Hobart Tower Location Map **Scale:** 1:24,000 **Date:** June 2002



UTM GRID AND 1994 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

Los Angeles, CA 7.5' USGS Quad 1966 (1981, 1994)

State of California — The Resources Agency **Primary #** 19-186110 (Update)
DEPARTMENT OF PARKS AND RECREATION **HRI #**

PRIMARY RECORD

Trinomial
NRHP Status Code

Other Listings
Review Code **Reviewer** **Date**

 ***Resource Name or #:** Union Pacific Railroad (No. 33, 34, and 100)

P1. Other Identifier: Union Pacific Railroad

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Los Angeles **Date:** 1966 (photo revised 1981 and 1994) **T** 1S; **R** 13W; unsectioned; S.B.**B.M.**

c. Address: City: Los Angeles Zip: 90023

d. UTM: Zone: 11 ; mE/ mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: ~245 feet above msl

Tracks located on the east side of the Los Angeles River north and south of the 6th Street Viaduct

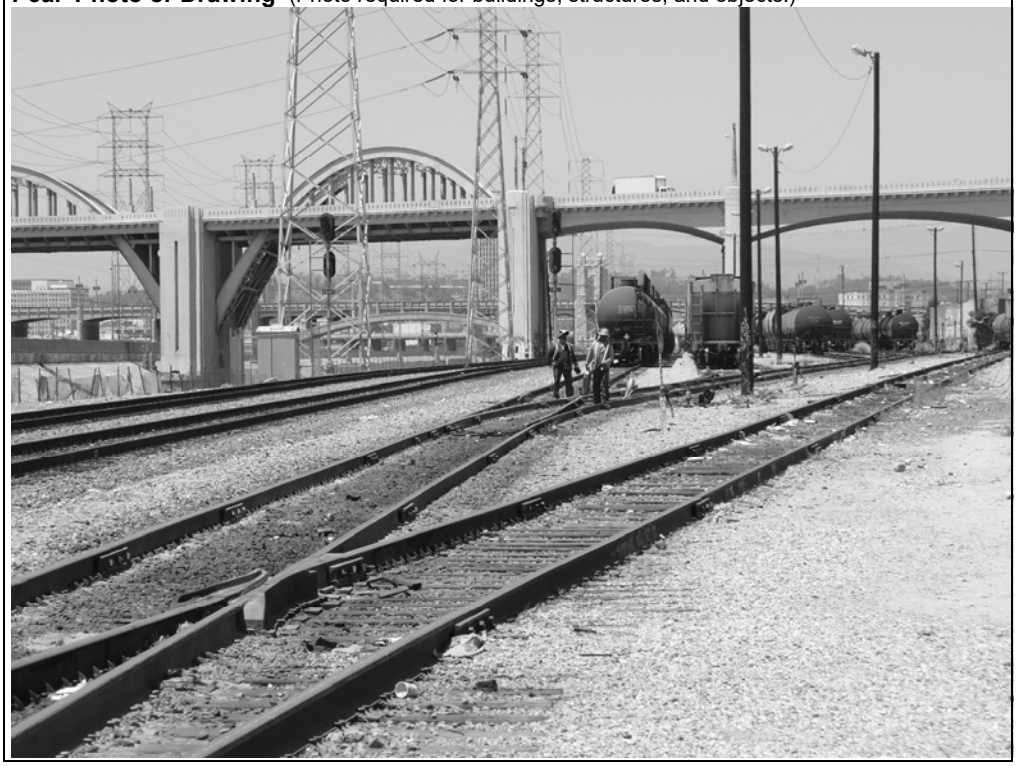
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Union Pacific Railroad (UP) tracks in the project area are comprised of a set of 5 freight tracks, which run roughly north-south on the east side of the Los Angeles River. Two sets of continuous welded rail (tracks) are immediately east of the Los Angeles River, and three converge into a single line south of the 6th Street Viaduct. The sets of continuous welded tracks are arranged in linear configurations, parallel to one another. This segment of tracks is contiguous at the north and south ends to additional portions of railroad track. The tracks are not physically distinguishable from other steel, standard guage, continuous welded freight railroad tracks. This segment of railroad may have been directly associated with the development of the community because of its original connection with the Los Angeles & San Pedro Railroad (1869), Los Angeles Terminal Railway Company (1891), San Pedro, Los Angeles, & Salt Lake Railroad Company (1901), Los Angeles & Salt Lake Railroad (1920), Southern Pacific (c. 1920s), Union Pacific (1997). The trackbed is roughly flat (with berms at tracks), and this segment is bordered by Mission Street on the east side, Metrolink and the chanelized Los Angeles River on the west side. The 6th Street Viaduct notably runs perpendicular to the tracks, overhead.

***P3b. Resource Attributes:** (List attributes and codes) HP11 (Engineering structure); HP39 (Other-railroad)

***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View north from crossover, July 11 2007 07 11 07 46

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Pehistoric
☐ Both
circa 1869-present

***P7. Owner and Address:**
Union Pacific Railway
1400 Douglas Street
Omaha, NE 68179

***P8. Recorded by:** (Name, affiliation, and address)
Francesca G. Smith and
Caprice D. (Kip) Harper
Parsons
100 W. Walnut Street, B-Pod 2nd Fl.
Pasadena, CA 91124

***P9. Date Recorded:** 07/11/07

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")

Historical Resources Evaluation Report: 6th Street Viaduct Seismic Improvement Project, prepared by Francesca G. Smith, 2007.

***Attachments:** ☐ NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z (Segment only)

***Resource Name or #** (Assigned by recorder) Union Pacific Railroad (No. 33, 34, and 100)

B1. Historic Name: Southern Pacific Railroad/San Pedro, Los Angeles & Salt Lake Railroad/Los Angeles Terminal Railroad

B2. Common Name: Union Pacific

B3. Original Use: railroad B4. Present Use: railroad

***B5. Architectural Style:** N/A

***B6. Construction History:** (Construction date, alterations, and date of alterations)

Ongoing maintenance and reconfiguration of tracks for more than 100 years (dates unknown).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features:**

B9a. Architect: N/A b. Builder:

***B10. Significance: Theme:** **Area:**

Period of Significance: **Property Type:** **Applicable Criteria:**

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This segment of railroad tracks, formerly part of the Los Angeles Terminal Railway, San Pedro, Los Angeles & Salt Lake Railroad and Los Angeles & Salt Lake Railroad yard was reduced in size at the turn of the 20th century, a a segment of railroad tracks is modestly recognizable to its original appearance. Now operated by Union Pacific, the linear resource is a series of parallel railroad tracks. The remaining tracks have been maintained for over 100 years, however, no buildings or other substantial railroad-related resources from the former San Pedro, Los Angles & Salt Lake Railroad yard remain. Because of these changes, the property lacks integrity of design, materials, workmanship and location (as it was developed after the 20th century and streets were built). The surrounding landscape has changed over the years and the resource no longer retains integrity of setting. In part because of described alterations to materials, workmanship, location and setting, this property is not eligible for listing in the National or California registers under Criterion C or 3. No evidence was discovered to warrant consideration under Criterion D/4.

A previous evaluation of this railroad system in the greater Los Angeles area found the railroad eligible for the National Register under Criteria A and B (Jones & Stokes, 6/22/99). While the entire railroad line or perhaps the entire Los Angeles Branch may be eligible for the National and California registers, this small segment of the much larger 27,000 mile system no longer retains sufficient integrity to be eligible (Union Pacific *2006 Analyst Fact Book*). It is very short segment of a much longer linear historic resource, parts of which may be historically significant.

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

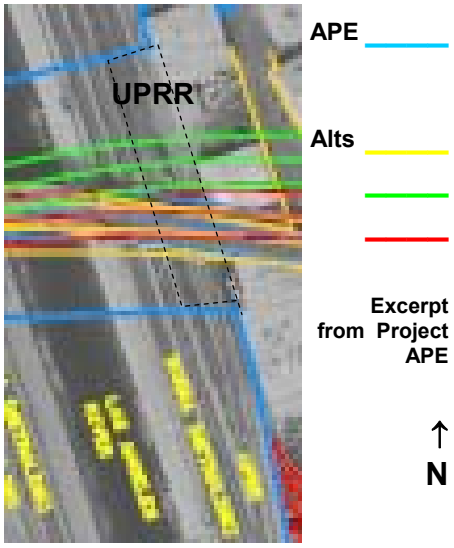
Union Pacific Corporation, *2006 Analyst Fact Book,*
John Signor, *The Los Angeles and Salt Lake Railroad Company: Union Pacific's Historic Salt Lake Route*

B13. Remarks:

***B14. Evaluator:** Francesca G. Smith

***Date of Evaluation:** 07/11/07

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

L1. Historic and/or Common Name:) Union Pacific Railroad

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:**

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) 11S, 386708.15mE/ 3767199.03mN (northernmost point) and 11S, 386750.89mE/3767033.01mN (southernmost point)'

The approximately 450- foot-long segment is located on the east side of the Los Angeles River at the 6th Street Viaduct.

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.) Union Pacific was the third transcontinental railroad to reach Los Angeles in 1905, arriving through its subsidiary, the Los Angeles Terminal Railroad. Los Angeles Terminal Railroad was originally namd for Terminal Island, and subsequently became the San Pedro, Los Angeles & Salt Lake Railroad; shortly after that, it was Los Angeles & Salt Lake Railroad through a series of mergers and acquisitions. By that time, the three main competing railroads were the Southern Pacific (SP), Atchison Topeka & Santa Fe Railway and Union Pacific. In 1910, then-rival, SP was established in Los Angeles on the west side of the river. Agriculture was one of the first industries to benefit from the presence of the railroads, notably the citrus industry after the advent of the refrigerated freight car. As a result of this growth, enormous rail yards like this property once was, (see Continuation Sheet 4) developed on both sides of the Los Angeles River. The current configuration of sets of railroads tracks bears no resemblance to the former LA & SL RR Yards that once occupied the site.

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

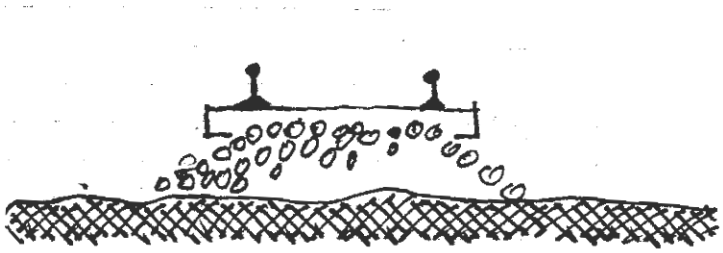
a. Top Width: 4'- 8.5 " (standard guage)

b. Bottom Width: +- 9'-0" per track

c. Height or Depth: 5" (track- top to bottom)

d. Length of Segment: +- 450 feet

L4e. Sketch of Cross-Section (include scale) **Facing:**
sketch of section (no scale)

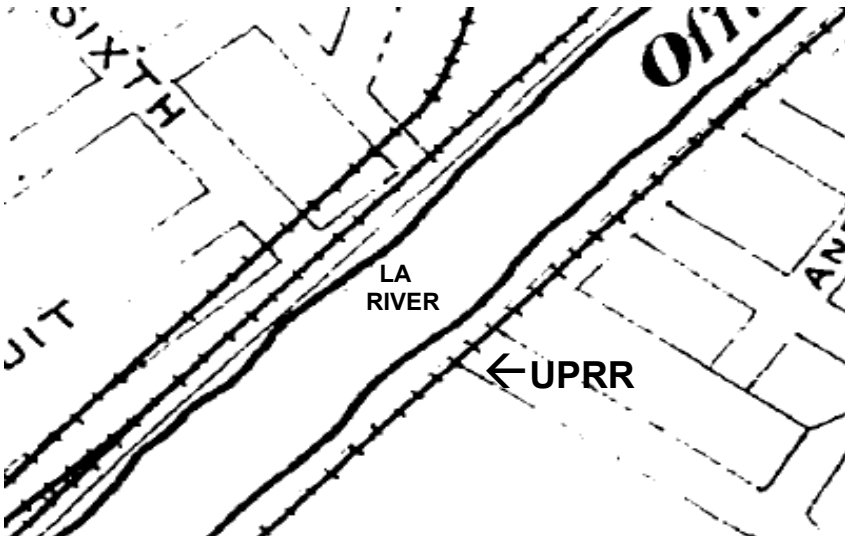


L5. Associated Resources:

6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)
Located on the east side of the Los Angeles River, a channelized flood control channel. Situated north, south and beneath 6th Street Viaduct.

L7. Integrity Considerations: This segment has been subject to ongoing maintenance, the Los Angeles River has been channelized and industrial urban development has greatly altered the integrity of setting of the railroad.

L8a. Photograph, Map or Drawing



Annotated excerpt from *Sanborn Fire Insurance Co. Map of Los Angeles,* Volume 1, Sheet 0, 1894.

N

L8b. Description of Photo, Map, or Drawing (View, scale, etc.)
Excerpt *Sanborn Fire Insurance Co Maps of Los Angeles*, sheet 0
-plan view, no scale

L9. Remarks:
L8 depicts UPRR's predecessor San Pedro, Los Angeles & Salt Lake Railroad

L10. Form Prepared by: (Name, affiliation, and address)
Francesca G. Smith and Caprice D. (Kip) Harper
Parsons
100 W. Walnut Street, B-Pod, 2nd Floor
Pasadena, CA 91124

L11. Date: 07/11/07

L3. Description:

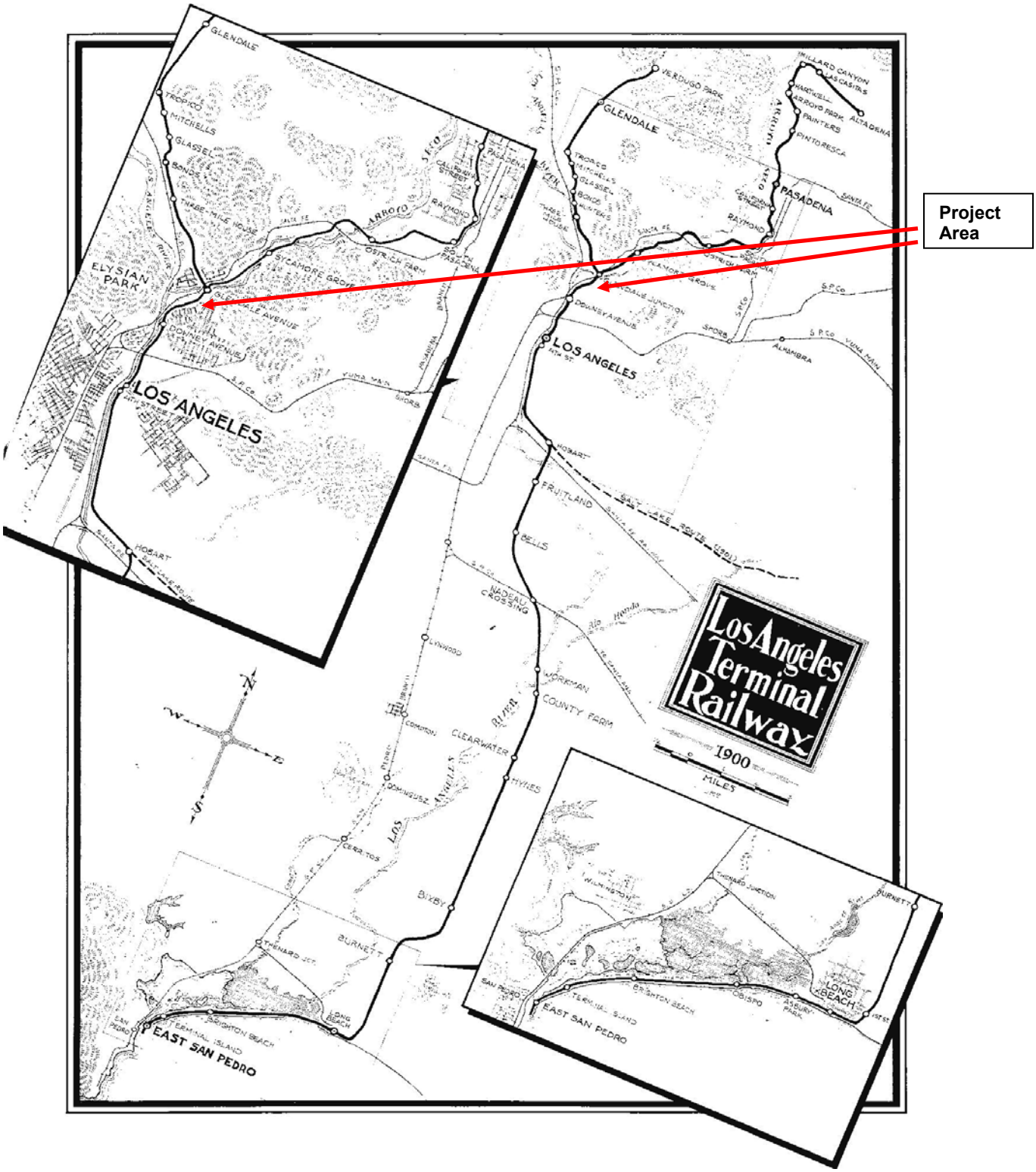
P5a. Drawing:



P5b. Description of Drawing: Annotated excerpt from John Signor's *The Los Angeles & Salt Lake Railroad Company*, depicting the Los Angeles & Salt Lake Railway in 1930. Project area is noted.

***Recorded by:** Francesca G. Smith and Caprice D. (Kip) Harper ***Date:** 05/24/07 ☒ Continuation ☐ Update

P5a. Drawing:



P5b. Description of Drawing: Annotated excerpt from John Signor, *The Los Angeles & Salt Lake Railroad Company*, depicting the Los Angeles Terminal Railway in 1900. Project area is noted.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186110 (Update)
HRI#
Trinomial

Page 6 **of** 6 ***Resource Name or #:** Union Pacific Railroad

***Map Name:** USGS Los Angeles 7.5 Minute Topographic Quadrangle ***Scale:** 1:24,000 ***Date of Map:** 1966 (PR 1981; 1994)



DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 19-186110 (Update)
HRI #
Trinomial
NRHP Status Code: 6Y, 6Z
Other Listings
Review Code ____ Reviewer ____ Date ____

***Resource Name or #:** Union Pacific Railroad segment at I-605 **Caltrans Map Reference No.:** 26
P1. Other Identifier:
***P2. Location:** ____ **Not for Publication** X **Unrestricted**
***a. County** Los Angeles **County/Route/Postmile:**
***b. USGS 7.5' Quad:** Whittier **Date** 1965. rev. 1981 **T** ____;**R** ____ **of** ____ **of Sec** ____; ____ **B.M.**
c. Address NA **City** Downey **Zip**
d. UTM::11 **Zone** 3392298 , ____ **mE/** 11810405 **mN**
***e. Other Locational Data** (APN #, etc.)
***P3a. Description:** (Briefly describe resource below)

This update form is for a 621-foot long segment of the Union Pacific Railroad (UPRR) in the Downey, California area. This segment is a single-track, standard gauge line, traveling on a slightly elevated ballast, directly below Interstate 605 or the San Gabriel River Freeway. The portion evaluated here includes the section that intersects with Hoxie Avenue, south of Nance Street. In addition to rails, ties, ballast, and metal perimeter fencing, this segment contains associated modern gates, signals, and lights at the Hoxie Avenue crossing (See continuation sheet).

***P3b. Resource Attibutes:** HP39. Other
****P4. Resources Present:** ___Building __x__Structure ____Object ____Site ___District ____Elements of District ____Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: Looking northwest from Hoxie Avenue (ICF, 3/26/2018)
***P6. Date Constructed/Age:** 1870s to present (Jones & Stokes, 1999)
__x__ Historic ___Prehistoric ___Both
***P7. Owner and Address:**
Union Pacific Railroad
1400 Douglas Street
Omaha, NE 68179

***P8. Recorded by:**
Jessica B. Feldman
ICF
555 W. Fifth Street
Suite 3100
Los Angeles, CA 90013

***P9. Date Recorded:** 3/26/2018
***P10. Type of Survey:** ___Intensive ___Reconnaissance __X__Other
Describe: Section 106 Compliance

***P11. Report Citation:** HRER for the I-605 Corridor Improvement Project PA/ED, 2019
***Attachments:** ___NONE __X__Map Sheet __x__Continuation Sheet ___Building, Structure and Object Record ___Linear Resource Record ___Archaeological Record ___District Record ___Milling Station Record ____Rock Art Record ___Artifact Record ___Photograph Record Other (List):

Previous evaluations of the railroad line in 1999 and 2007 found that the physical components, such as tracks, ballast, and signal system, have been periodically upgraded over the past century, as a result of routine maintenance or system improvements. In 2007, the evaluator suggested that the entire railroad line, or perhaps the entire Los Angeles Branch of the UPRR, may be eligible for the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR); however, this small segment of a much larger potential linear historic resources lacks integrity within the historic context to be eligible for either the NRHP or the CRHR.

Under Criterion A of the NRHP, the integrity of design, materials, and workmanship is not as important as the integrity of location, setting, feeling, and association to convey the significance of the resource, within the period of significance. Previous documentation and evaluation of this segment of the UPRR established the period of significance as beginning in the late 1860s and continuing through 1905, when the tracks reached Los Angeles. Through review of historic aerials and United States Geological Survey maps, it can be established that while the location and association of this railroad segment appear to remain intact, the segment has lost integrity of setting and feeling. When originally constructed through this part of Los Angeles County, the surrounding countryside was primarily unsettled, and surrounded by cultivated and fallow lands. By the 1950s, housing developments were beginning to pop up along both sides of the San Gabriel River; however, the construction of Interstate 605 rapidly changed the landscape. As a result, the original character of the setting no longer resembles a rural, agricultural late 19th century landscape, not the least of which is the result of a multi-lane freeway being constructed over the tracks. Furthermore, the alteration of physical features in the immediate vicinity, in additional to the intrusion of modern railroad equipment, has diminished the integrity of feeling. Therefore, this small segment of the UPRR is not independently eligible under NRHP Criterion A or CRHR Criterion 1.

Under NRHP/CRHR Criterion B/2, there is no known direct association with any persons considered significant in national, state, or local history. Therefore, this segment of the UPRR is not independently eligible for the NRHP under Criterion B or the CRHR under Criterion 2.

As previously discussed, there is little, if any, direct physical evidence of the original mid- to- late-19th century railroad or associated features located within this transportation corridor and, as a result, it lacks integrity of design, materials, and workmanship. Survey of the corridor did not reveal that this small segment of the railroad displays any important engineering advancement, or creative or innovation design, or unusual construction methods. Therefore, it is not independently eligible for listing in the NRHP under Criterion C or the CRHR under Criterion 3.

Under NRHP Criterion D or CRHR Criterion 4, the railroad segment is not a significant or likely source of important information regarding history or prehistory. It is unlikely to yield any important data regarding original engineering or architectural designs or techniques that would help us understand the construction practices of the day. Therefore, this segment of the UPRR is not eligible for individual listing on the NRHP/CRHR under Criterion D/4.

Following the review of previous evaluations, additional research, and survey of the segment, ICF concurs with the finding that although the portions of the UPRR alignment could be eligible for the NRHP or the CRHR, the subject segment does not contribute to the larger property and lacks significance for eligibility independently. The segment of the UPRR is not a historic property for the purposes of Section 106 of the National Historic Preservation Act and is not a historical resource for the purposes of the California Environmental Quality Act. The property was not evaluated for local designation.

References:

Drury, George. *The Historical Guide to North American Railroads*. Kalmbach Books: Milwaukee, WI. 1985.

Cooley, David J. *California Railroad Maps, Union Pacific/BNSF Railway*. Sonrisa Publications: Auburn, WA. 2005.

Jones & Stokes (Ashkar, S.). *C-Los Angeles-A-1/Southern Pacific Railroad/Union Pacific Railroad*. California Department of Parks and Recreation Primary Record, Building, Structure and Object Record, et al. 1999.

Parsons (Smith, Francesca and Kip Harper). *Union Pacific Railroad (No. 33, 34, and 100)*. California Department of Parks and Recreation Primary Record, Building, Structure and Object Record, et al. 2007.



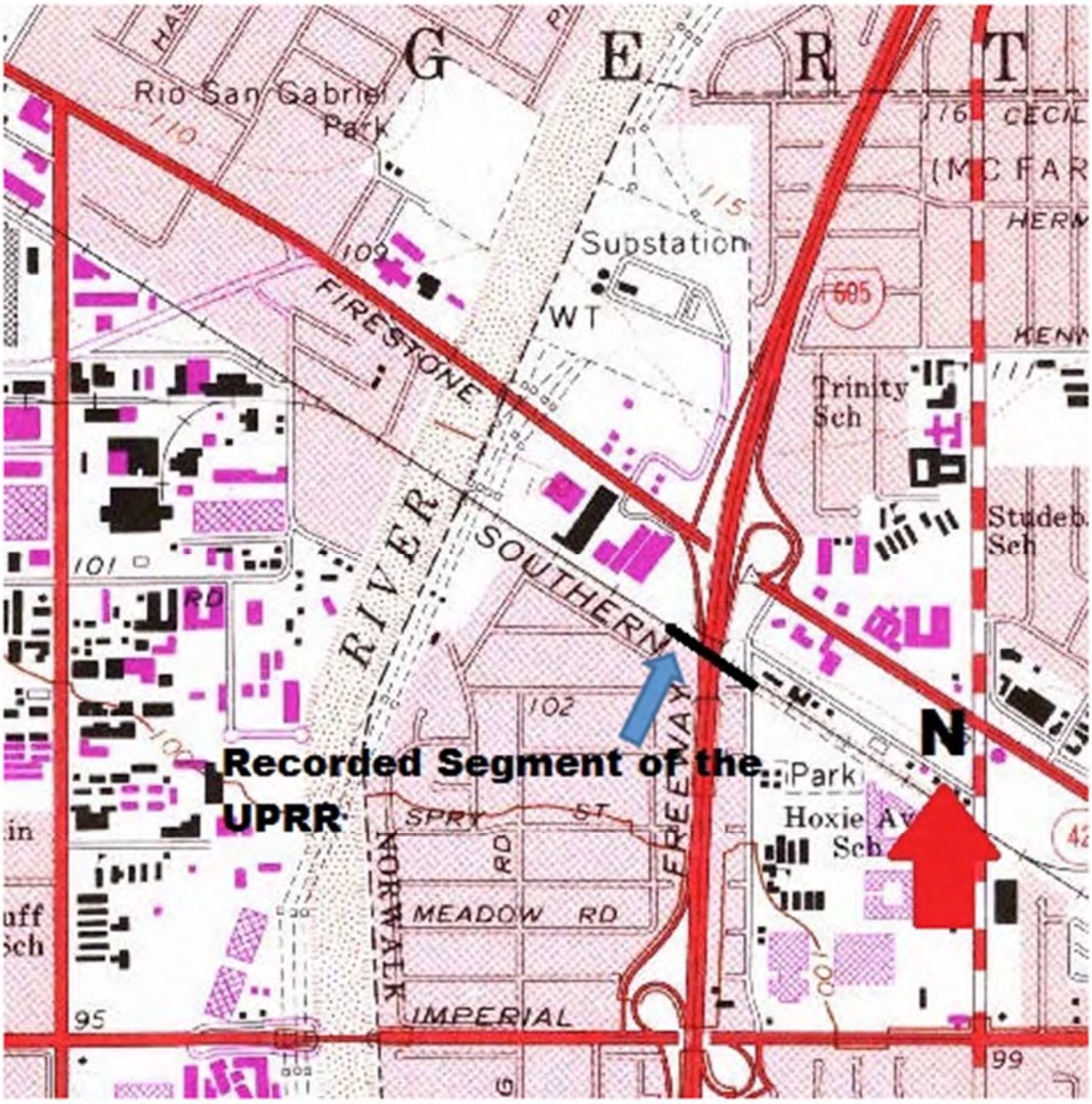
View looking south on Hoxie Avenue, south of Nance Street. ICF, June 27, 2017.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **LOCATION MAP**	Primary # HRI# Trinomial

Resource Identifier: Union Pacific Railroad segment at I-605 **Caltrans Map Reference No.:** 26

County/Route/Postmile:

Map Name: Whittier Quad *Scale: 1:24,000 *Date of Map: 1965, rev. 1981



P3a. Description:

An update to the DPR record for Union Pacific Railroad (former Southern Pacific Railroad) (P-19-186110) was recorded by Jessica B. Feldman, ICF, on March 26, 2018. The update was prepared as part of the Historical Resources Evaluation Report (HRER) for the I-605 Corridor Improvement Project (CIP) in Los Angeles County and documented the segment of the linear resource within the Area of Potential Effects (APE) for the project. The recommended status code for the segment was 6Y, 6Z. The HRER was subsequently reviewed by the State Historic Preservation Officer (SHPO). In a letter dated July 11, 2019, SHPO did not concur with the determination of ineligibility for the segment and recommended that the Union Pacific Railroad (P-19-186110) as a whole should be assumed eligible for the National Register of Historic Places for purposes of the I-605 Corridor Improvement Project only.

B12. References:

GPA Consulting and ICF International. *Historical Resources Evaluation Report for the I-605 Corridor Improvement Project*. March 2019. Prepared for Metro and Caltrans.

Polanco, Julianne. *Julianne Polanco, Office of Historic Preservation to Kelly Ewing-Toledo, Caltrans: Determinations of Eligibility for the Proposed Interstate 605 Corridor Improvement Project, Los Angeles County, CA*. Letter dated July 11, 2019.

B14. Evaluator: Jenna Kachour, GPA Consulting. Date of evaluation: (Update) July 25, 2019.

Recorded by Stephen O'Neil **Date** February 6, 2020 ___Continuation √ Update
Form Prepared by Bai "Tom" Tang **Date** October 28, 2020

This update pertains to two small segments of the Burlington Northern Santa Fe (BNSF) Railway across the Coyote Creek Channel (East Fork) in the City of Buena Park, Orange County. One of these is on the BNSF mainline between Los Angeles and Riverside (Locus 1), consisting of an approximately 50-foot-long, 80-foot wide concrete bridge supported by concrete abutments and a concrete pier. The open deck of the bridge carries three sets of railroad tracks, with the third set added in 2006-2007. The other segment is part of minor spur line serving an industrial park on the southwest side of the mainline (Locus 2). It crosses the channel on an approximately 120-foot-long, 20-foot-wide steel girder bridge that rests on concrete abutments and a concrete pier. This bridge carries a single set of tracks, flanked by weathered wooden rails.

Both of these rail lines were formerly parts of the Atchison, Topeka and Santa Fe (ATSF) Railway prior to the merger with the Burlington Northern Railroad in 1995. The Los Angeles-Riverside mainline was built in 1885-1888 by the Riverside, Santa Ana and Los Angeles Railway Company, an ATSF subsidiary, in the early years of ATSF's "invasion" of California, where the Southern Pacific Railroad Company had enjoyed a virtual monopoly on modern transportation. It later became a part of the famed "Kite-Shaped Track," a popular excursion route between Los Angeles and the Inland Empire during the 1890s-1910s. The spur line was constructed in 1963-1964, when the industrial park between the Cities of Cerritos, Buena Park, La Mirada, and Santa Fe Springs began to take shape on former agricultural land. However, the bridges across the Coyote Creek Channel, in their current configuration, evidently date to the 1966-1967 era, when the concrete-lined channel was completed by the U.S. Army Corps of Engineers. As elsewhere, other features of railroad operations, such as the rails, have also been replaced and upgraded over the years to meet modern transportation standards.

As a working infrastructure feature of late historic origin and standard design/ construction, the small segment of the BNSF mainline across Coyote Creek does not demonstrate any distinguished historical, architectural, engineering, aesthetic, or informational qualities of its own and retains little integrity to relate to the period of significance for the ATSF, namely the late 19th and early 20th centuries. Despite the prominent role that the ATSF played in the growth of southern California and in the social and political history of the state during that period, this segment of the mainline does not contribute to the significance of Site 19-186804/30-176663 as a whole. The 1960s spur line has no documented association with any historic figures or events and does not exhibit any other special merits. As such, neither of these loci appears to be eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.

UTM Coordinates:

Locus 1: **Zone** 11 ; 407,383 **mE**/ 3,749,521 **mN**
Locus 2: **Zone** 11 ; 406,593 **mE**/ 3,749,085 **mN**

Report Citation:

Bai "Tom" Tang
2020 Historic Property Survey Report, OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, California

Recorded by Stephen O'Neil Date February 6, 2020 Continuation √ Update
Form Prepared by Bai "Tom" Tang Date October 28, 2020

References:

Duke, Donald
1991 "Kite-Shaped Track Excursion." *The Branding Iron* (Los Angeles) Summer:8-12.

Google Earth
2006, 2007 Aerial photographs. Available through the Google Earth software.

Gustafson, Lee, and Philip Serpico
1992 *Santa Fe Coast Lines Depots, Los Angeles Division*. Omni Publications, Palmdale, California.

NETR (Nationwide Environmental Title Research) Online
1963, 1972 Aerial photographs. http://www.historicaerials.com.

Seidman, Laah
1930 The History of the Santa Fe Railway in California. M.A. thesis, Department of History, University of Southern California, Los Angeles.

USACE (United States Army Corps of Engineers)
1966-1967 Los Angeles Drainage Area, Coyote Creek Channels: Coyote Creek Channel Upstream from North Fork (as-built plans). Digital copies provided by U.S. Army Corps of Engineers, Los Angeles District.

USGS (United States Geological Survey, U.S. Department of the Interior)
1965 Map: Whittier, Calif. (7.5', 1:24,000); aerial photographs taken in 1963, planetable surveys in 1965.

Recorded by Stephen O'Neil **Date** February 6, 2020 ___Continuation √ Update
Form Prepared by Bai "Tom" Tang **Date** October 28, 2020



BNSF mainline across Coyote Creek (Locus 1), view to the southwest



BNSF spur across Coyote Creek (Locus 2), view to the east

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # 19-186804/30-176663 (Update)
HRI #
Trinomial

***Resource Name or #** (Assigned by recorder)

***Map Name:** Anaheim, La Habra, Los Alamitos, and Whittier, Calif.
***Scale:** 1:24,000 ***Date of Map:** 1981



*Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 19-186804/30-176663
HRI # * See also 30-176064
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

Page 1 of 11 *Resource Name or # (Assigned by recorder) CRM TECH 789-50H

P1. Other Identifier: Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe) Railway

*P2. Location: √ Not for Publication ___ Unrestricted *a. County Los Angeles/Orange
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quads Los Angeles, Calif. Date 1966, photorevised 1981
South Gate, Calif. Date 1964, photorevised 1981
Whittier, Calif. Date 1965, photorevised 1981
La Habra, Calif. Date 1964, photorevised 1981
Anaheim, Calif. Date 1965, photorevised 1981

T2-3S R10-13W, S.B. B.M. [Within the boundaries of the San Juan Cajon de Santa Ana, Los Coyotes, Santa Gertrudes (McFarland and Downey), Santa Gertrudes (Colima), Paso de Bartolo (Sepulveda), Paso de Bartolo (Guirado), and San Antonio (Lugo) land grants]
Elevation: Ca. 80-190 feet above mean sea level

c. Address N/A City Fullerton, Buena Park, La Mirada, Santa Fe Springs, Norwalk, Pico Rivera, Montebello, City of Commerce, and Vernon Zip Code N/A

d. UTM: Zone 11; NW end: 388830 mE/ 3763880 mN; SE end: 417800 mE/ 3747600 mN
UTM Derivation: √ USGS Quad ___ GPS

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The recorded segment of the railroad extends from Basta (BNSF Mile Post 163.3) in the City of Fullerton to Hobart (M.P. 148.9) in the City of Vernon

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The site consists of an approximately 14.7-mile segment of the Burlington Northern Santa Fe (formerly Atchison, Topeka and Santa Fe) Railway surveyed between Hobart (MP 148.9) and Basta (MP 163.3). Most of the rail line dates originally to the 1880s. Like the many other historic-period rail lines that remain in use today, this segment of the former ATSF Railway demonstrates little historical characteristics due to the numerous modern alterations necessary to keep it in active service, such as the upgrades to and replacement of track, ballast, and signal system. As a result of these alterations, the existing rail line does not exhibit the necessary historic integrity to relate to its period of significance.

*P3b. Resource Attributes: (List attributes and codes) HP37: Railroad

*P4. Resources Present: ___ Building ___ Structure ___ Object √ Site ___ District ___ Element of District
___ Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

(See p. 10)

P5b. Description of Photo: (view, date, accession #) Photos taken on June 21, 2002

*P6. Date Constructed/Age of Sources:
√ Historic ___ Prehistoric ___ Both 1885-1888 (see Items B6 and B12 for detail)

*P7. Owner and Address:
Burlington Northern Santa Fe Railway Company, 2650 Lou Menk Drive, Fort Worth, TX 76131

*P8. Recorded by: (Name, affiliation, and address)
Daniel Ballester/Bai "Tom" Tang, CRM TECH, 4472 Orange Street, Riverside, CA 92501

*P9. Date Recorded: June-July 2002

*P10. Survey Type: CEQA-compliance survey

(*Continued on p. 2*)

*P11. **Report Citation:** (Cite survey report and other sources, or enter "none.") Bai Tang, Michael Hogan, and Mariam Dahdul (2002): Historical Resources Compliance Report: Third Main Track and Grade Separation Project, Hobart (MP 148.9) to Basta (MP 163.3), BNSF/Metrolink East-West Main Line Railroad Track, Vernon to Fullerton, Los Angles and Orange Counties, California. On file, South Central Coastal Information Center, California State University, Fullerton.

Bai "Tom" Tang, Michael Hogan, Deirdre Encarnación, and Josh Smallwood (2006, revised 2008): Historical Resources Evaluation Report: Passons Boulevard Grade Separation Project, BNSF/Metrolink East-West Main Line Railroad Track (MP 151.45), City of Pico Rivera, Los Angeles County, California; 07-LA-0-PRV, EA 992081. On file, South Central Coastal Information Center, California State University, Fullerton.

*Attachments: ____None __√__ Location Map __√__ Continuation Sheet __√__ Building, Structure, and Object Record
____Archaeological Record____District Record____Linear Resource Record____Milling Station Record
____Rock Art Record____Artifact Record____Photograph Record____Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 19-186804/30-176663
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z
*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

B1. Historic Name: Atchison, Topeka and Santa Fe Railway
B2. Common Name: Burlington Northern Santa Fe Railway
B3. Original Use: Railroad B4. Present Use: Railroad
*B5. **Architectural Style:** N/A
*B6. **Construction History:** (Construction date, alterations, and date of alterations) Most of the railroad line within this site was constructed in 1885-1888 by the Riverside, Santa Ana and Los Angeles Railway Company, an ATSF subsidiary, as a part of the ATSF main line from Los Angeles to Orange and San Diego. The easternmost segment, measuring approximately 1.5 miles in length, was built in 1910 as a part of the "Fullerton Cutoff," which straightened and shortened the ATSF line between Los Angeles and Riverside. During the heyday of the railroad age, the line was a part of the ATSF's famed "Kite-Shaped Track," one of the most popular tourist attractions in southern California in the 1890s-1910s. The rails, ties, and ballast have been replaced numerous times since its original construction in the late 1880s.
*B7. **Moved?** √ No ___ Yes ___ Unknown **Date:** ___ **Original Location:** ___
*B8. **Related Features:** Bridges, culverts, and other common railroad features (see p. 11)
B9a. Architect: N/A b. Builder: Riverside, Santa Ana and Los Angeles Railway Company
*B10. **Significance: Theme** Railroad transportation **Area** California
Period of Significance 1880s **Property Type** Railroad **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) The ATSF Railway appears to meet Criterion A for the National Register of Historic Places and Criterion 1 for the California Register of Historical Resources because it is closely associated with an important event in 19th-century California history, namely the coming of a second transcontinental railroad. This event marked the beginning of the end of the Southern Pacific Railway Company's transportation monopoly and contributed directly to the southern California land boom of the 1880s. The rail line is also associated with the emergence of southern California as a favored tourist destiny in the late 19th and early 20th centuries. However, due to the loss of historical integrity, it is no longer eligible for listing in the National Register or the California Register.

As a working component of the modern transportation infrastructure, the existing railroad line and its associated components are substantially altered and do not retain sufficient historic integrity, other than the aspect of location, to relate to the site's period of significance. The field inspection and consultation with Don Lozano, Assistant Director of Structural Design at BNSF, confirmed that all of the physical components of this segment of the railroad, including track, ballast, and signal system, have been upgraded or replaced over the years as a result of routine maintenance and improvement projects. For the same reason, the segment of the BNSF railroad recorded during this study appears to be exempt from further study under Caltrans' Section 106 Programmatic Agreement, Attachment 4, as Property Type 6.

B11. Additional Resource Attributes: (List attributes and codes) HP19: Bridges/culverts
*B12. **References:** Donald Duke (1991): Kite-Shaped Track Excursion (in *The Branding Iron* [Los Angeles] Summer 1991:8-12); Lee Gustafson and Philip Serpico (1992): *Santa Fe Coast Lines Depots, Los Angeles Division* (Omni Publications, Palmdale, California); Lozano, Don (2008): personal communication between CRM TECH and Mr. Lozano, Assistant Director of Structural Design, BNSF Railway Company.

(*Continued on p. 4*)

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 19-186804/30-176663
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z
*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

B13. Remarks:
*B14. Evaluator: Bai "Tom" Tang
*Date of Evaluation: November 2002/May 2008

(Sketch Map with north arrow required.)

(See pp. 5-10)

(This space reserved for official comments.)

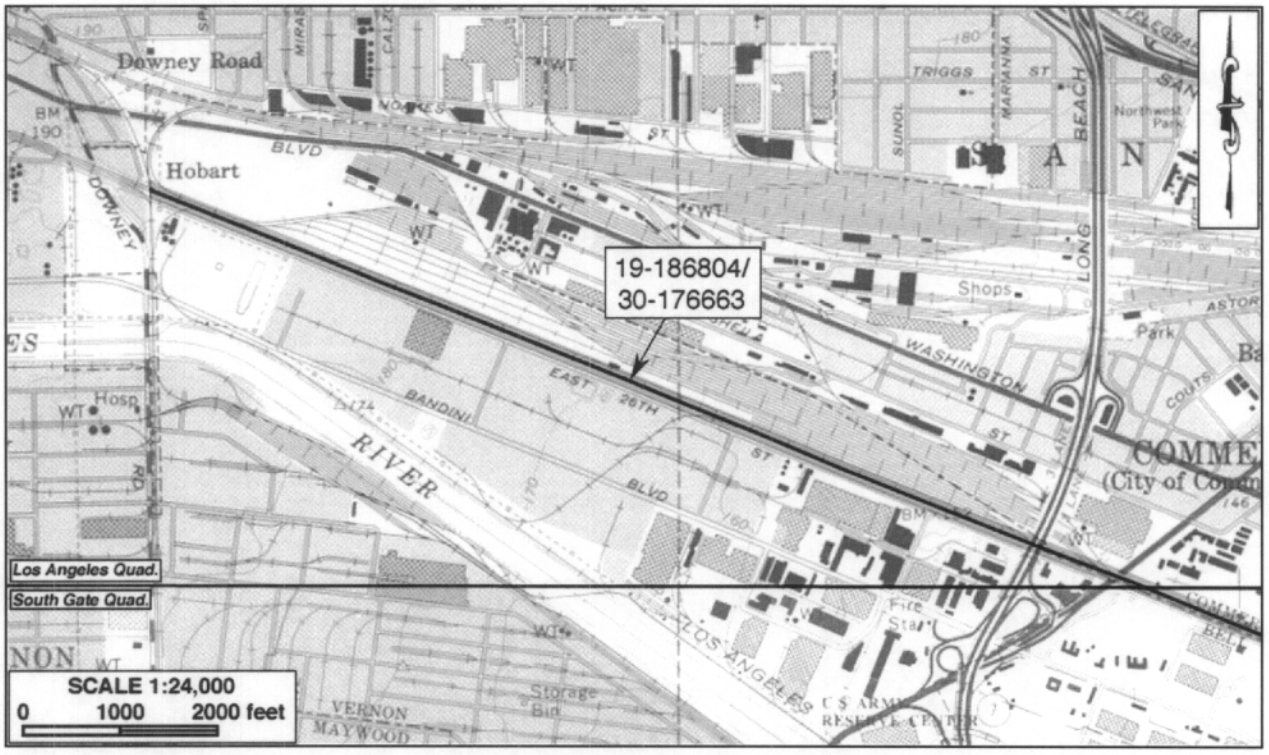
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

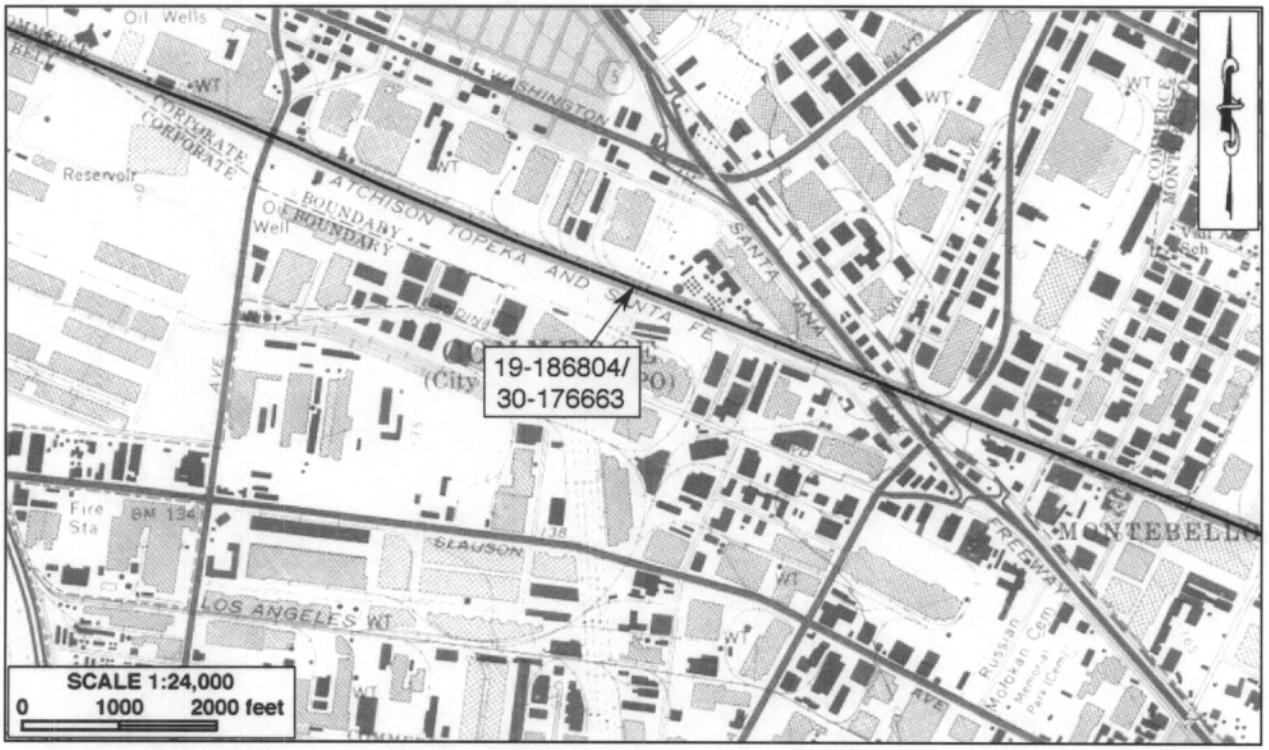
LOCATION MAP

Primary # 19-186804/30-176663
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: Los Angeles and South Gate, Calif.
*Scale: 1:24,000
*Date of Map: 1964/1966, photorevised 1981





*Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

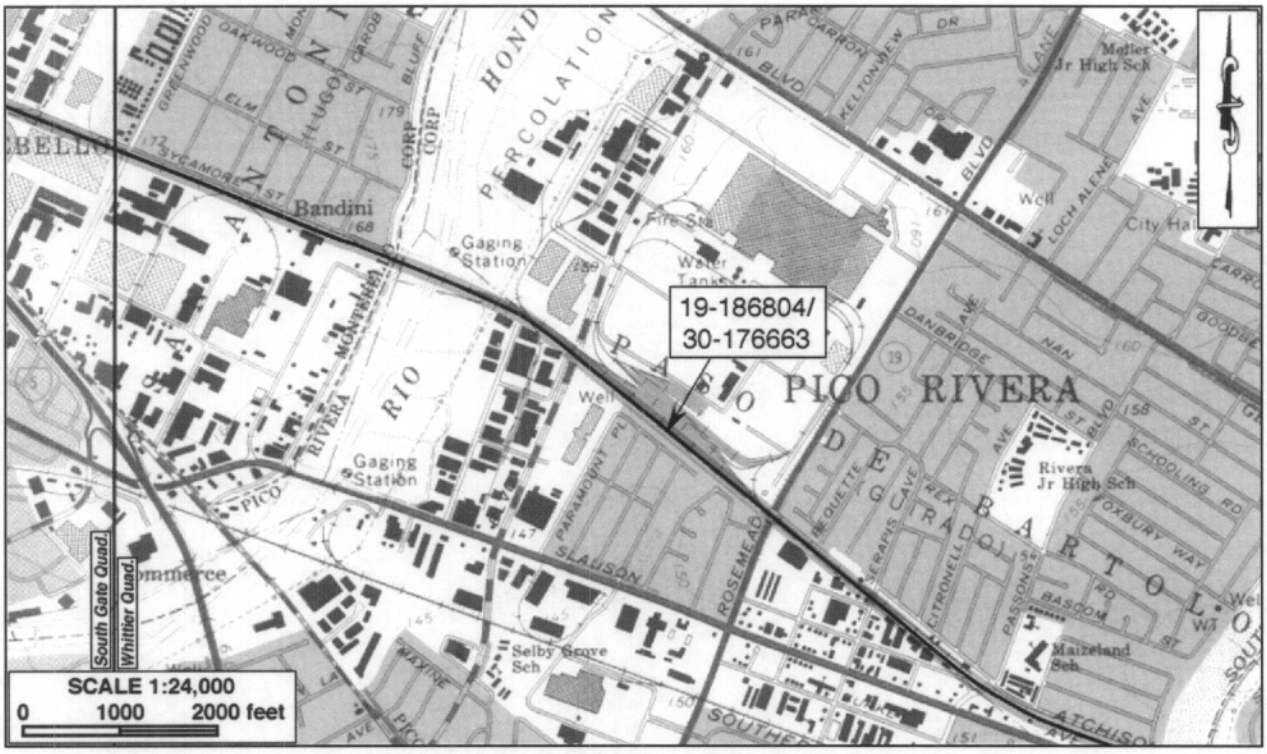
Primary # 19-186804/30-176663
HRI #
Trinomial

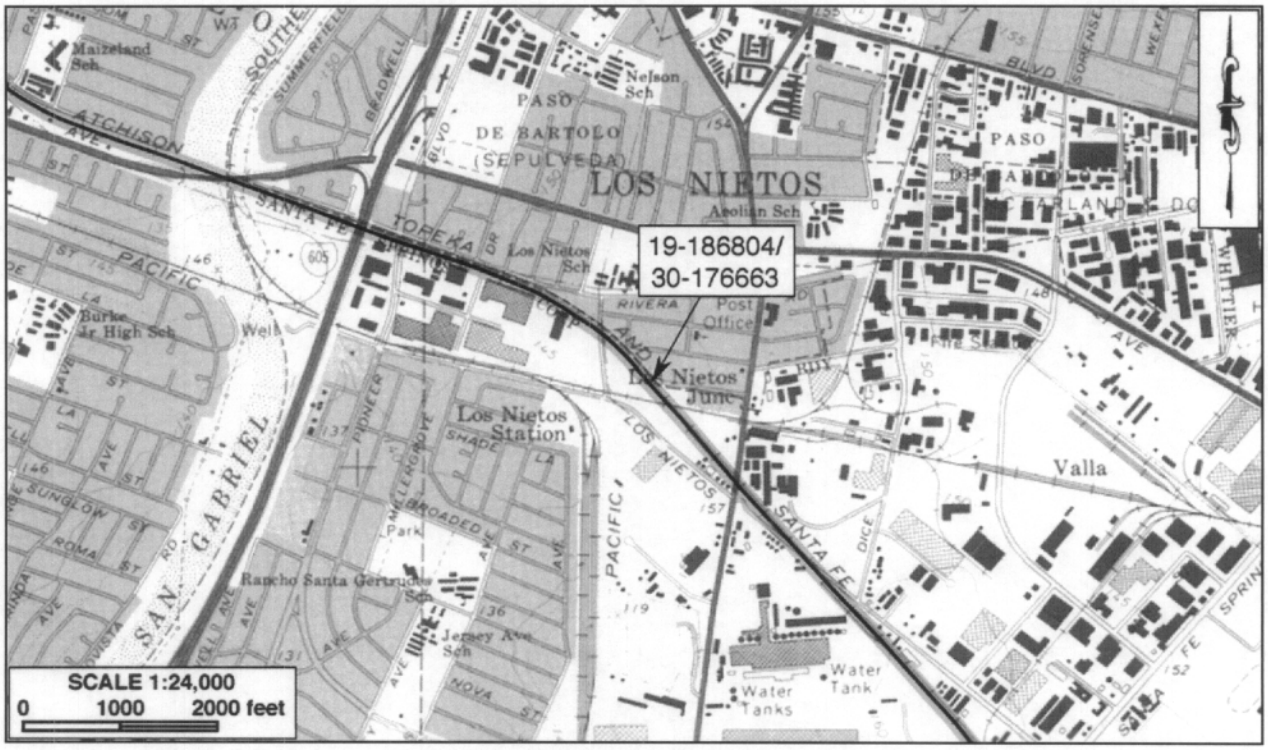
Page 6 of 11

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: South Gate and Whittier, Calif.
*Date of Map: 1964/1965, photorevised 1981

*Scale: 1:24,000





DPR 523J (1/95)

*Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-176663
HRI #
Trinomial

Page 7 of 11

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: Whittier, Calif.
*Scale: 1:24,000
*Date of Map: 1965, photorevised 1981



DPR 523J (1/95)

*Required information

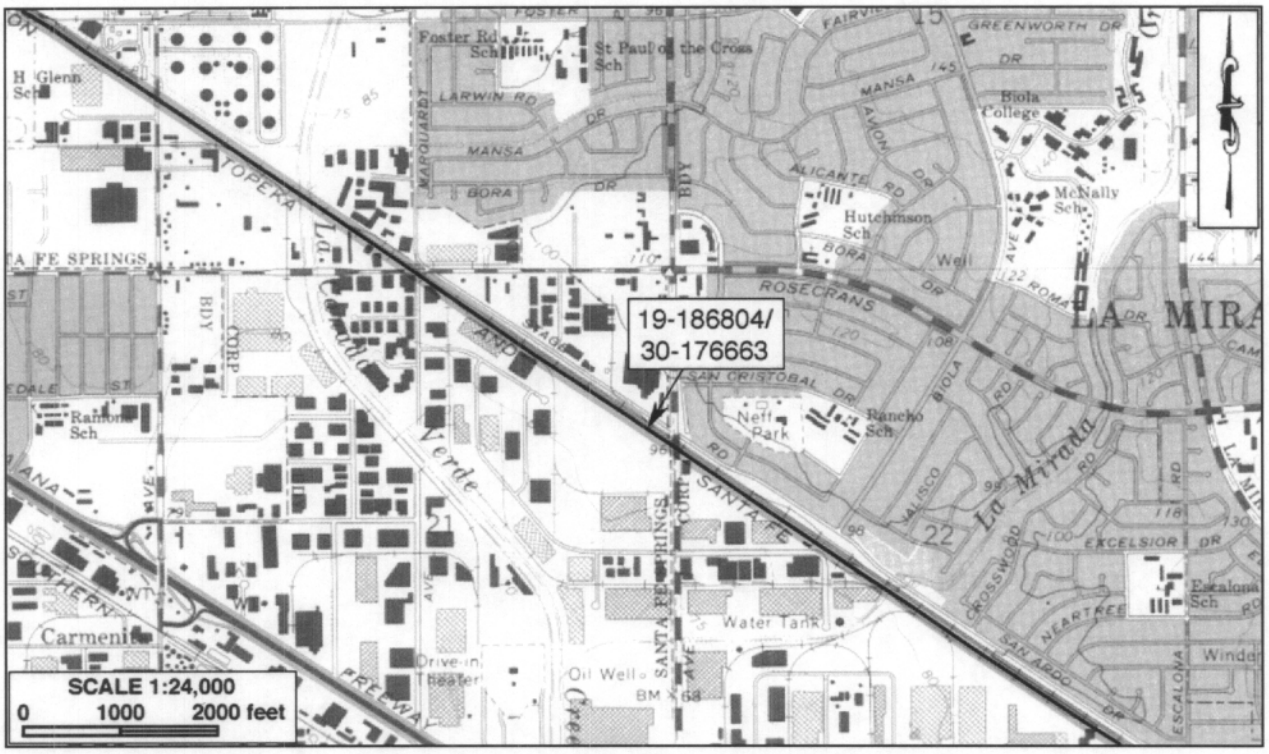
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-176663
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: Whittier, La Habra, Los Alamitos, and Anaheim, Calif.
*Scale: 1:24,000 *Date of Map: 1964/1965, photorevised 1981



*Required information

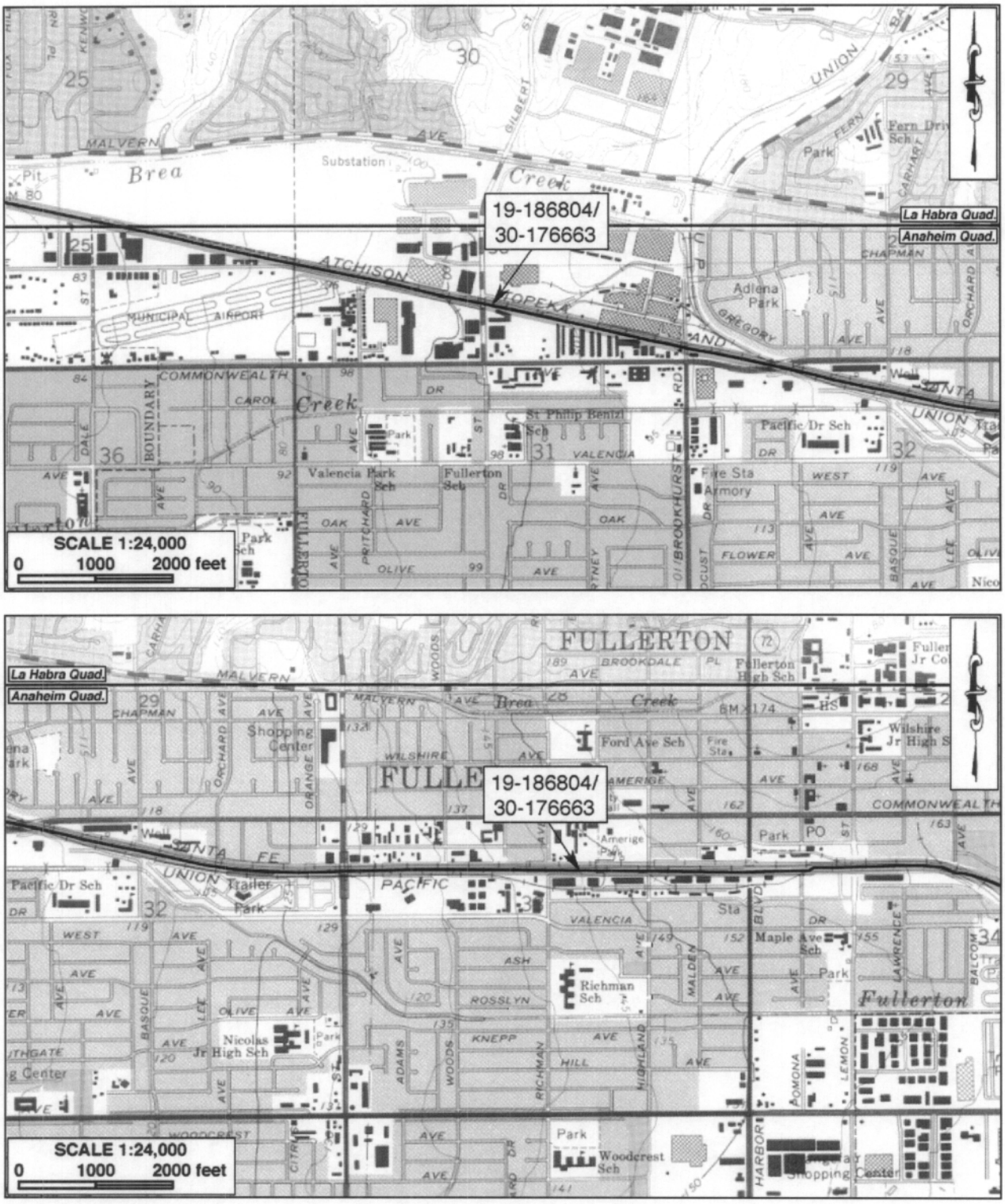
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-176663
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: La Habra and Anaheim, Calif.
*Scale: 1:24,000
*Date of Map: 1964/1965, photorevised 1981



*Required information

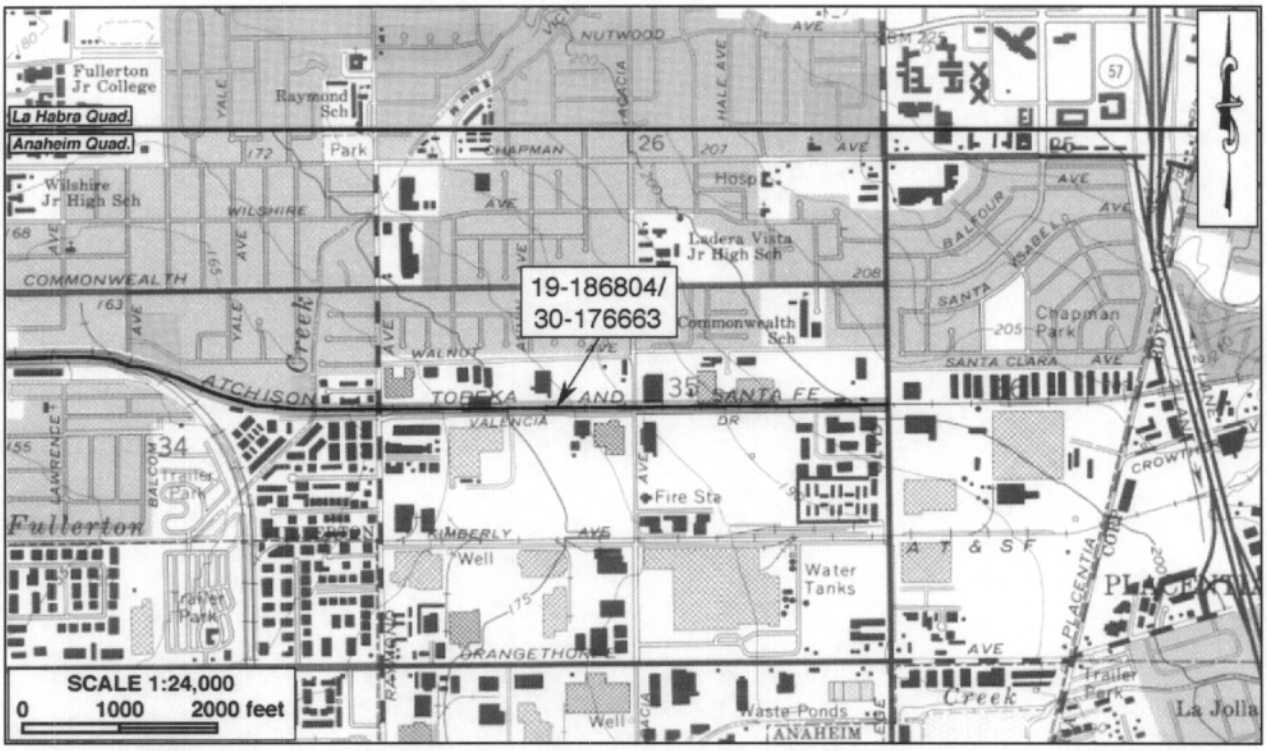
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-176663
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: La Habra and Anaheim, Calif.
*Scale: 1:24,000
*Date of Map: 1964/1965, photorevised 1981



*Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # 19-186804/30-176663
HRI #
Trinomial

Page 11 of 11 Resource name or # (Assigned by recorder) CRM TECH 789-50H

Photo Taken by Daniel Ballester *Date June 21, 2002 √ Continuation ___ Update



Typical view of the existing railroad line



Old concrete culvert across the railroad bed

DPR 523L (1/95) *Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 19-186804 (Update)
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

P1. Other Identifier: Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe) Railway

*P2. Location: ____Not for Publication __√__ Unrestricted *a. County Los Angeles and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quads Whittier, Calif. Date 1965, photorevised 1981
T2-3S R11-12W, S.B. B.M. Within the boundaries of the Los Coyotes, Santa Gertrudes (McFarland and Downey), Santa Gertrudes (Colima), Paso de Bartolo (Sepulveda), and Paso de Bartolo (Guirado) land grants
Elevation: Approx. 80-150 feet above mean sea level

c. Address N/A City La Mirada, Santa Fe Springs, Norwalk, and Pico Rivera Zip Code

d. UTM: Zone 11; NW end: 397,960 mE 3,759,830 mN; SE end: 405,500 mE 3,750,660 mN
UTM Derivation: √ USGS Quad ____ GPS

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The recorded segment of the railroad extends from BNSF Mile Post 150.7 in the City of Pico Rivera to M.P. 158.8 in the City of La Mirada.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The site consists of an approximately 8.1-mile segment of the Burlington Northern Santa Fe (formerly Atchison, Topeka and Santa Fe) Railway. Most of the rail line dates originally to the 1880s. However, as a working railroad after more than 100 years of continuous operation, its current physical characteristics reflect very little of the historic origin. The existing tracks and other associated railroad features are mostly modern in origin, and show no particular historical characteristics.

*P3b. Resource Attributes: (List attributes and codes) HP37: Railroad

*P4. Resources Present: ____Building ____Structure ____Object √ Site ____District ____Element of District Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

(See p. 7)

P5b. Description of Photo: (view, date, accession #) Photos taken on June 21, 2002

*P6. Date Constructed/Age of Sources:
√ Historic ____Prehistoric ____Both 1885-1888 (see Items B6 and B12 for detail)

*P7. Owner and Address:
Burlington Northern Santa Fe Railway Company, 2650 Lou Menk Drive, Fort Worth, TX 76131

*P8. Recorded by: (Name, affiliation, and address)
Daniel Ballester, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: June-July 2002

*P10. Survey Type: Project-related survey for CEQA- and Section 106-compliance purposes (intensive-level)

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang and Josh Smallwood (2009): Historical Resources Evaluation Report: Third Main Track Project, Segments 6, 7, and 8, Pico Rivera (MP 150.7) to La Mirada (MP 158.8), BNSF/Metrolink East-West Mainline, Los Angeles County, California, Caltrans District 7. On file, South Central Coastal Information Center, California State University, Fullerton.

*Attachments: ____None __√__ Location Map __√__ Continuation Sheet __√__ Building, Structure, and Object Record
____Archaeological Record ____District Record ____Linear Resource Record ____Milling Station Record
____Rock Art Record ____Artifact Record ____Photograph Record ____Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 19-186804 (Update)
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z
*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

B1. Historic Name: Atchison, Topeka and Santa Fe Railway
B2. Common Name: Burlington Northern Santa Fe Railway
B3. Original Use: Railroad B4. Present Use: Railroad
*B5. **Architectural Style:** N/A
*B6. **Construction History:** (Construction date, alterations, and date of alterations) The railroad line at this location was constructed in 1885-1888 by the Riverside, Santa Ana and Los Angeles Railway Company, an ATSF subsidiary, as a part of the ATSF main line from Los Angeles to Orange and San Diego. During the heyday of the railroad age, the line was a part of the ATSF's famed "Kite-Shaped Track," one of the most popular tourist attractions in southern California in the 1890s-1910s. Almost all of the physical components of the railroad, however, have been replaced over the years.
*B7. **Moved?** √ No ___ Yes ___ Unknown **Date:** ___ **Original Location:** ___
*B8. **Related Features:** Bridges, culverts, and other common railroad features (see p. 7)
B9a. Architect: N/A b. Builder: Riverside, Santa Ana and Los Angeles Railway Company
*B10. **Significance:** **Theme** Railroad transportation **Area** California
Period of Significance 1880s **Property Type** Railroad **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) The railroad line at this site is closely associated with an important event in 19th-century California history, namely the coming of a second transcontinental railroad, which marked the beginning of the end of the Southern Pacific Railway Company's transportation monopoly and contributed directly to the southern California land boom of the 1880s. It is also associated with the emergence of southern California as a favored tourist destiny in the late 19th and early 20th centuries. However, the existing railroad line and its associated features that constitute the site, as working components of the modern transportation infrastructure, do not retain sufficient historic integrity to relate to the site's period of significance. Therefore, the site does not appear eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.
B11. Additional Resource Attributes: (List attributes and codes) HP19: Bridges/culverts
*B12. **References:** Donald Duke (1991): Kite-Shaped Track Excursion, in *The Branding Iron* (Los Angeles) Summer 1991:8-12; Lee Gustafson and Philip Serpico (1992): *Santa Fe Coast Lines Depots, Los Angeles Division*, Omni Publications, Palmdale, California.
B13. Remarks:
*B14. **Evaluator:** Bai "Tom" Tang
***Date of Evaluation:** November 2002

(Sketch Map with north arrow required.)

(See pp. 3-6)

(This space reserved for official comments.)

*Required information

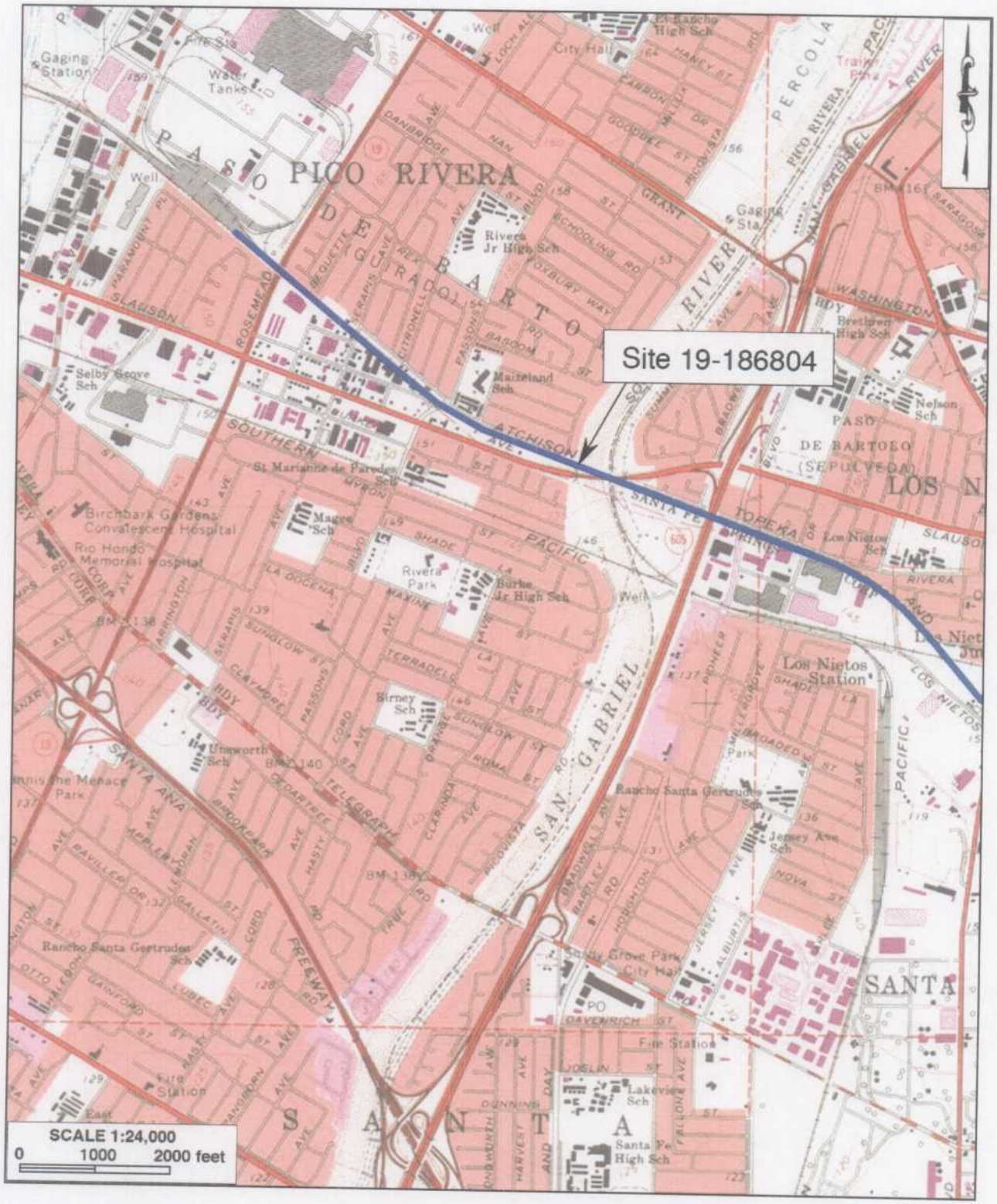
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804 (Update)
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

*Map Name: Whittier, Calif. *Scale: 1:24,000 *Date of Map: 1965, photorevised 1981



*Required information

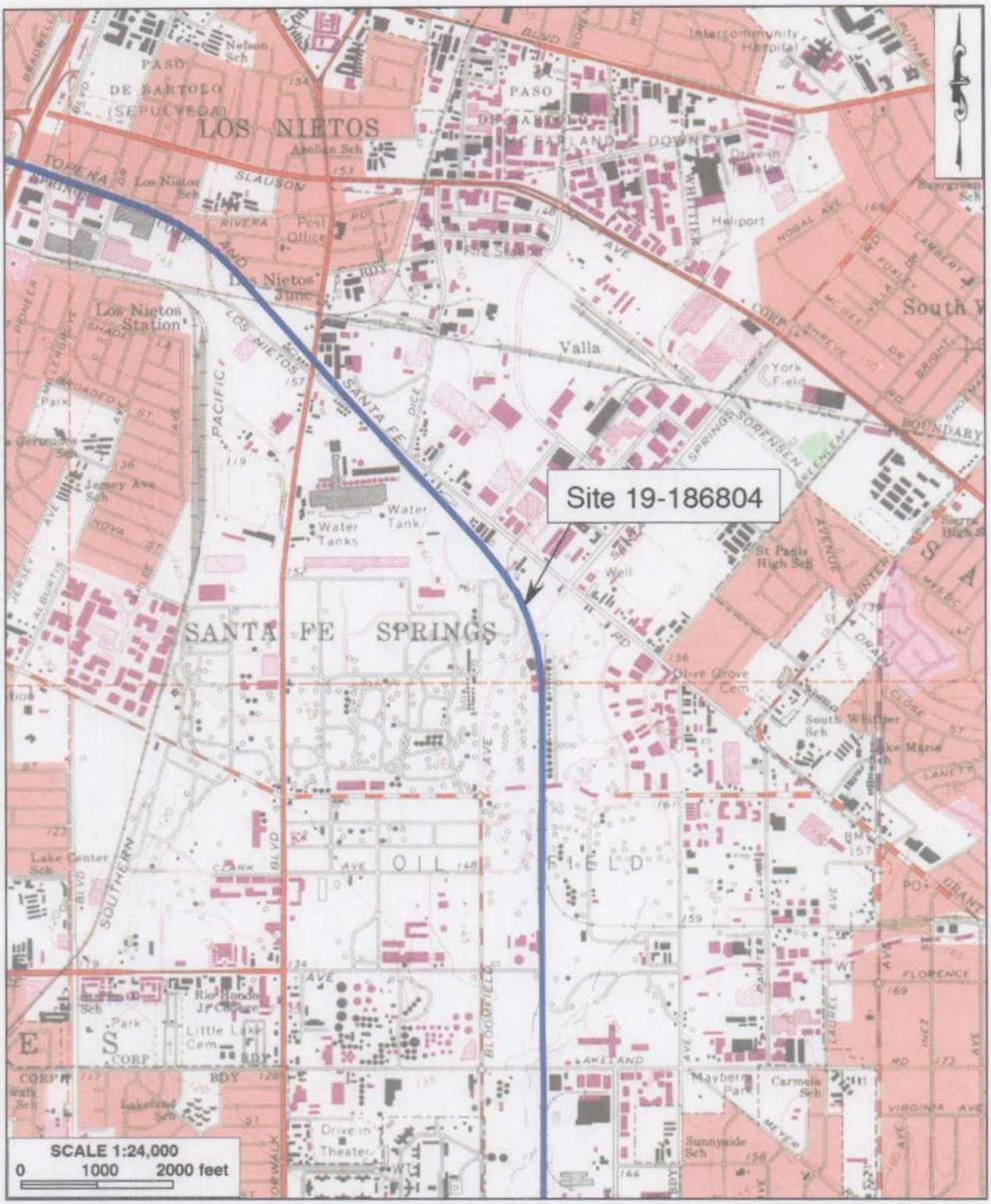
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804 (Update)
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

*Map Name: Whittier, Calif. *Scale: 1:24,000 *Date of Map: 1965, photorevised 1981



*Required information

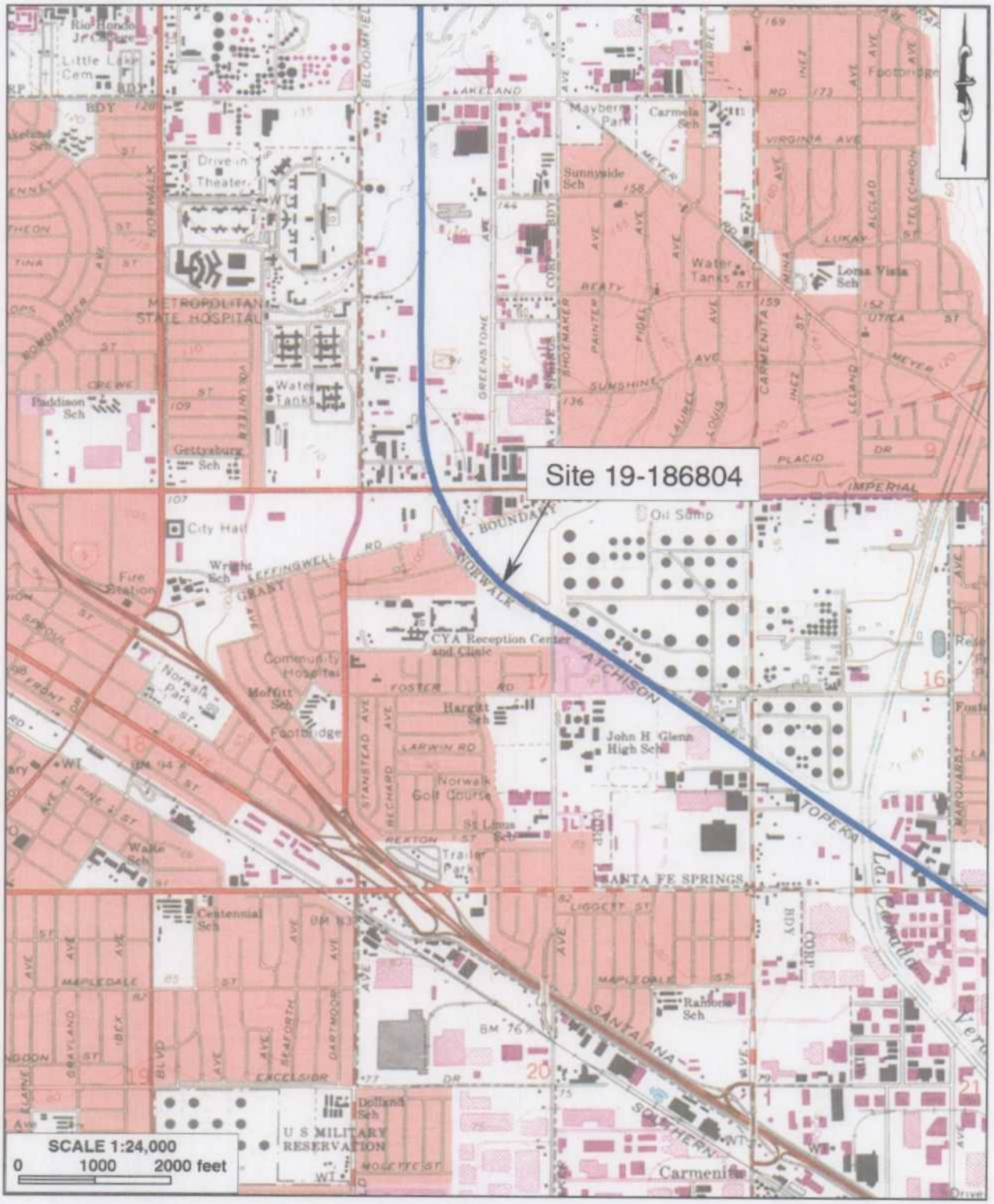
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804 (Update)
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

*Map Name: Whittier, Calif. *Scale: 1:24,000 *Date of Map: 1965, photorevised 1981



*Required information

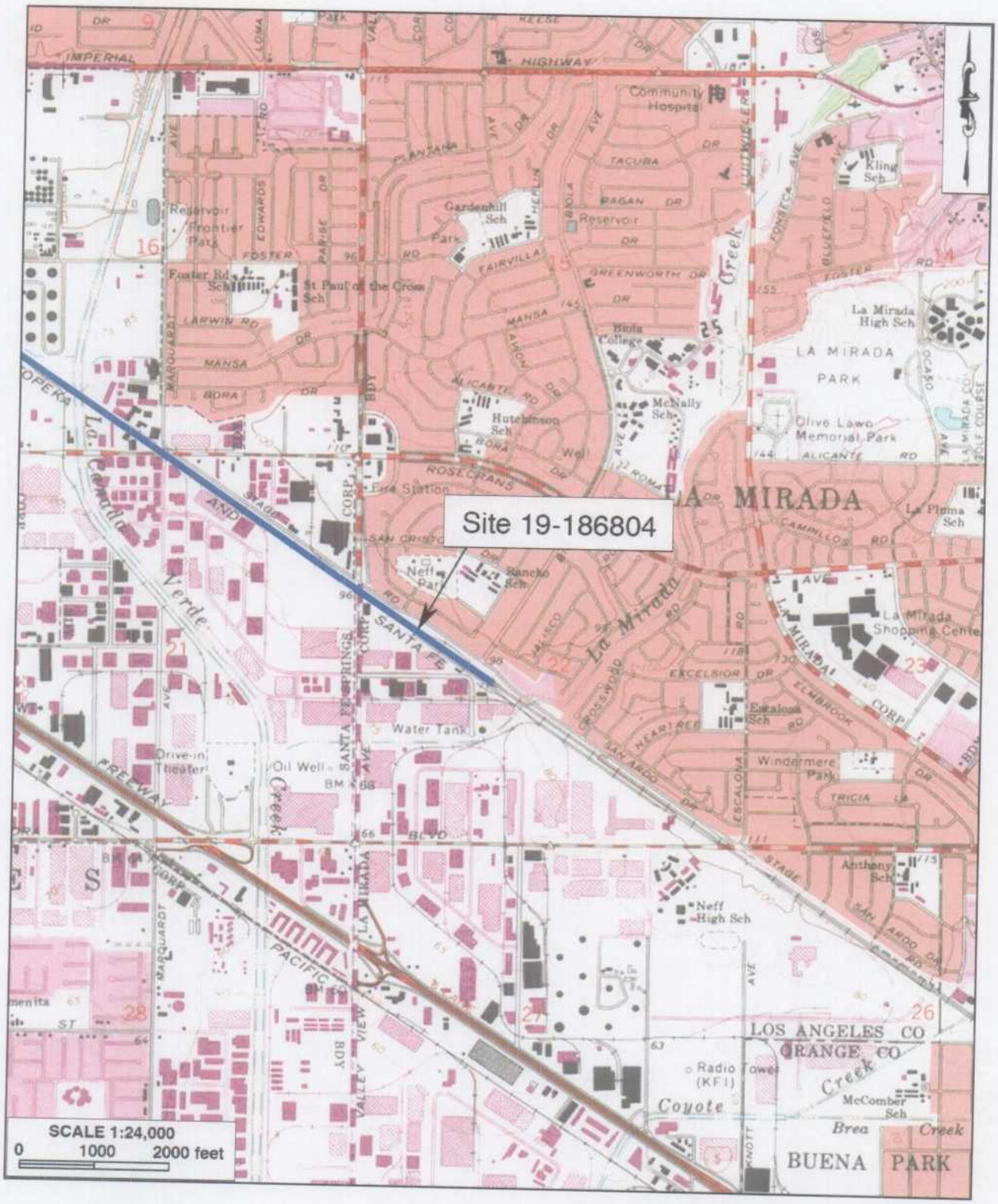
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804 (Update)
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

*Map Name: Whittier, Calif. *Scale: 1:24,000 *Date of Map: 1965, photorevised 1981



DPR 523J (1/95)

*Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary # 19-186804 (Update)
HRI #
Trinomial

Resource name or # (Assigned by recorder) CRM TECH 2334-1H

Photos Taken by Daniel Ballester *Date June 21, 2002 √ Continuation ___ Update



Typical view of the existing railroad line



Concrete culvert across the railroad bed

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 19-186804/30-176663
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD UPDATE

Page 1 of 27

*NRHP Status Code

*RESOURCE NAME OR # Burlington Northern Santa Fe Railway

B1. Historic Name: Atchison, Topeka and Santa Fe Railway
B2. Common Name: Burlington Northern Santa Fe Railway
B3. Original Use: Railroad**B4. Present Use:** Railroad
*B5. Architectural Style: **NA**
*B6. Construction History: **(Construction date, alterations, and date of alterations)**
Most of the railroad within this site was constructed in 1885-1888 by the Riverside, Santa Ana and Los Angeles Railway Com pany, an ATSF Subsidiary, as part of the ATSF main line from Los Angeles to Orange and San Diego.

*B7. Moved? xNo ☐Yes ☐Unknown Date: Original Location:
*B8. Related Features: Bridge,s culverts and other common railroad features

B9a. Architect: NA. Builder: Santa Fe
*B10. Significance: Theme: Rairoad transportaion
Period of Significance: **1880**
Property Type: **Railroad**
Applicable Criteria: **NA**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) This railroad line at this site is closely associated with the coming of a second transcontinental railroad. This railway helped to contribute to the souther California land boomof the 1880's. This is a operational railway and as such the railway and its associated features do not retain sufficient historic integrity to relate to the sites period of significance and therefor does not apper to be eligible for listing in the National Registor of Historic Places. 1889 Santa Fe built the segment of the railway thru Irvine Ranch.

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: **Orange County Rialroads.**
http://www.anaheimcolony.com/train.htm
2007 Paleontological and Archaeological Assessment Report For The Alton – Bake Layover Facility and El Toro Siding Extenison, City of Irvine, California by Sherri Gust, Steven McCormick and Kim Scott.

B13. Remarks: This is an update to extend the site from Fullerton Station all the way down to the Orange County/ San Diego Border. This segment of the railway is approximately 43 miles

*B14. Evaluator: **Steven McCormick**

*Date of Evaluation: **June 2007**

Sketch map
See series of map sheets attached.

(This space reserved for official comments.)

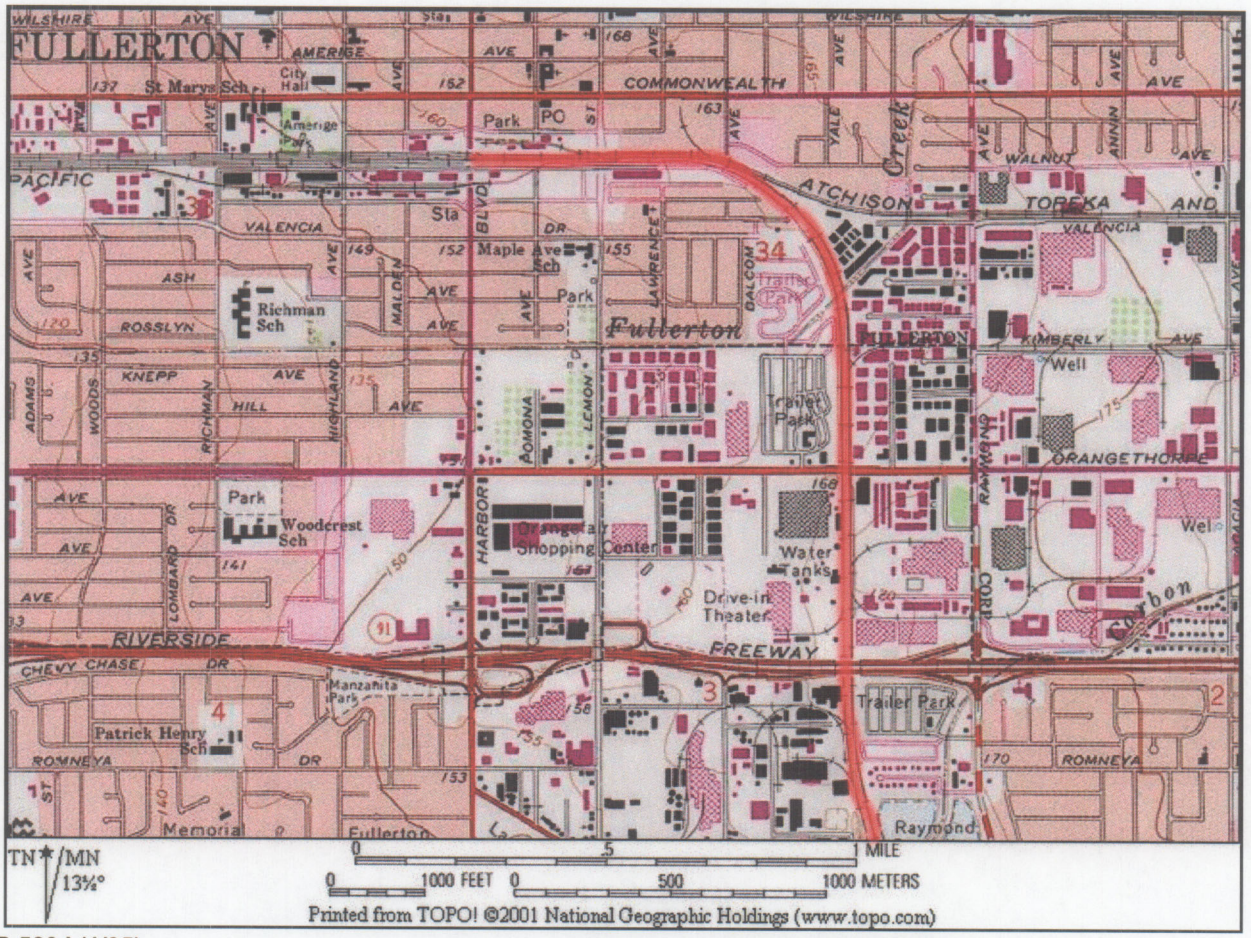
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Anaheim 7.5 Quad *Scale: 1 : 24,000 *Date of Map: 1965 photorevised 1981



DPR 523J (1/95)

*Required information

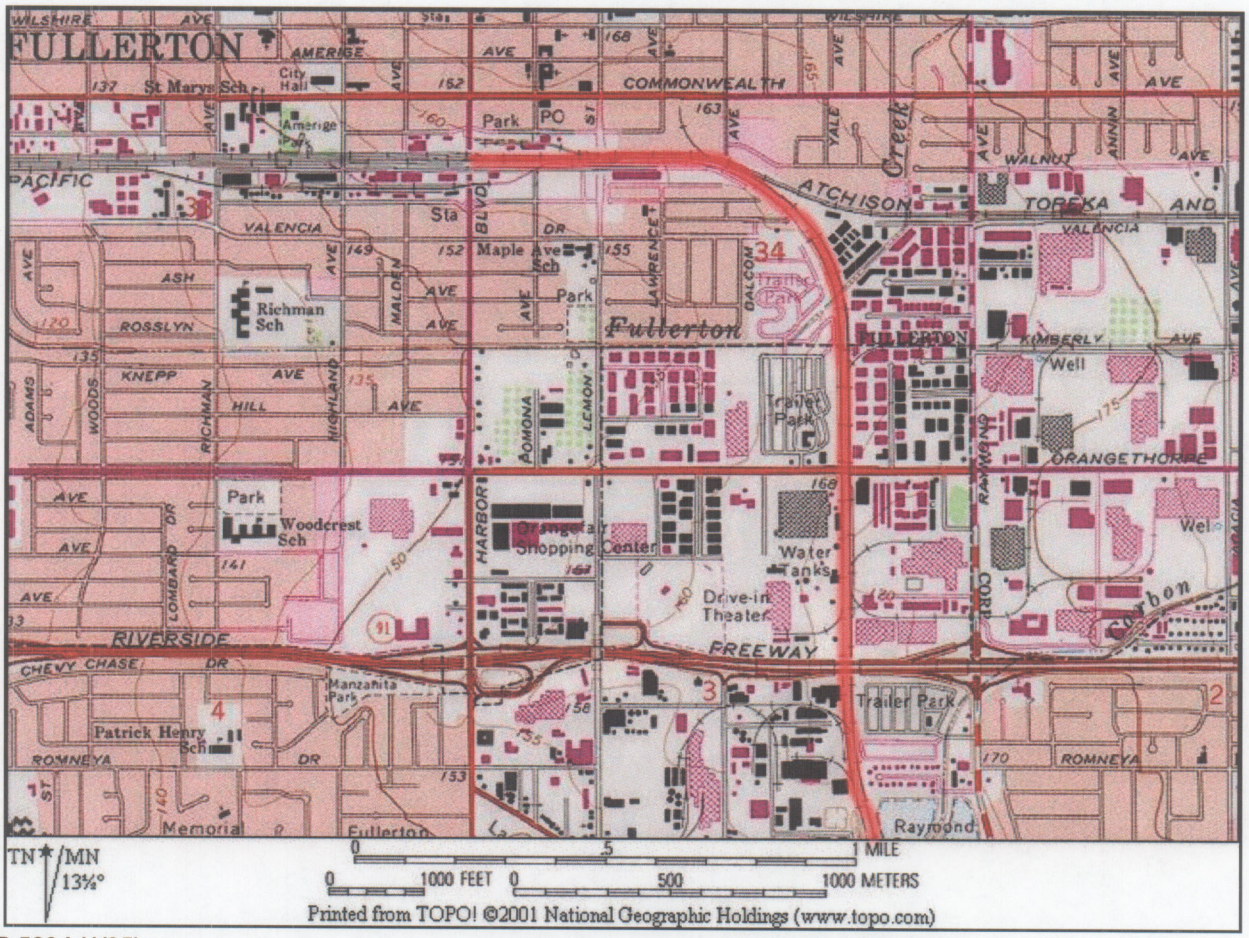
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Anaheim 7.5 Quad *Scale: 1 : 24,000 *Date of Map: 1965 photorevised 1981



Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

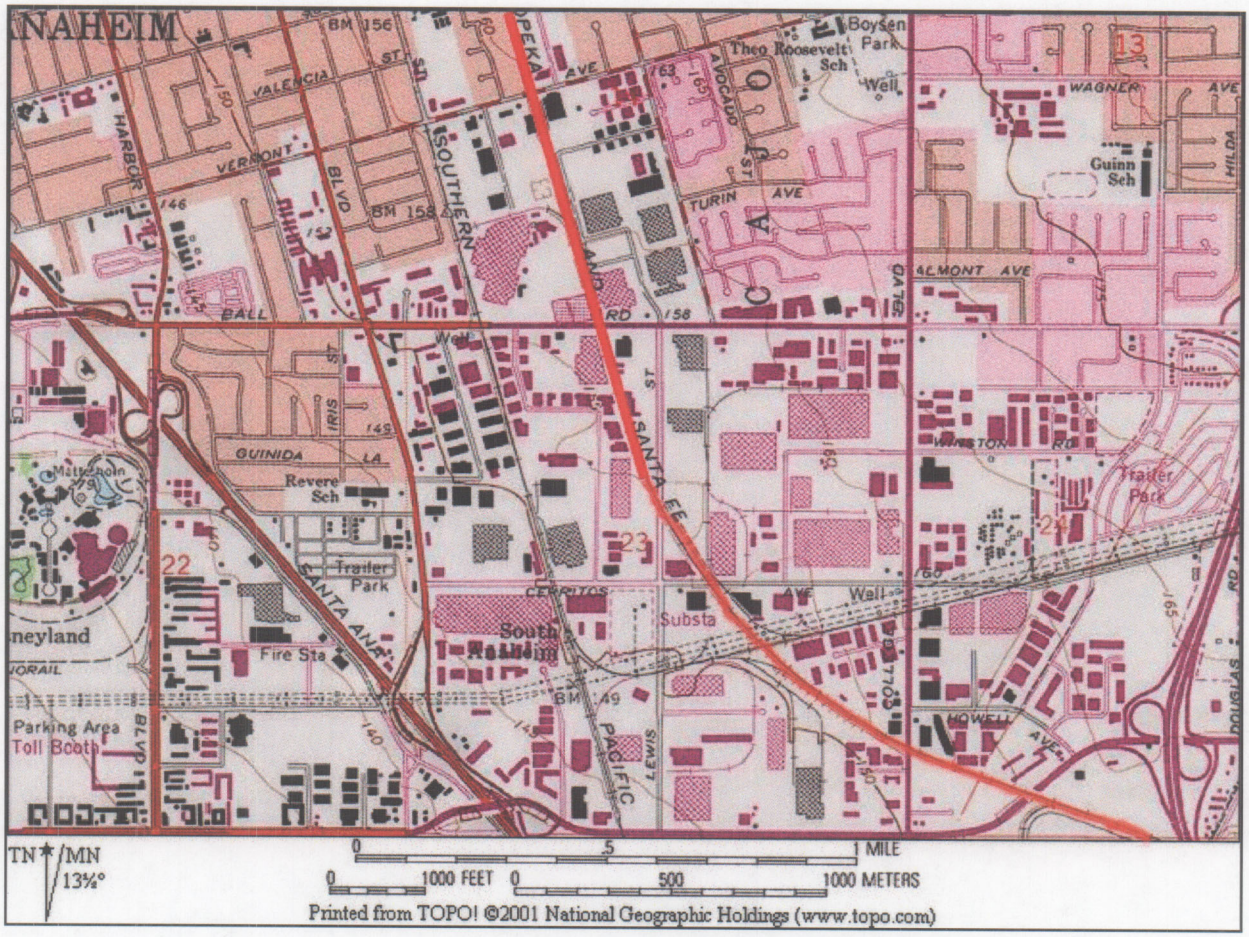
*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Anaheim 7.5 Quad *Scale: 1 : 24,000 *Date of Map: 1965 photorevised 1981



DPR 523J (1/95)

*Required information

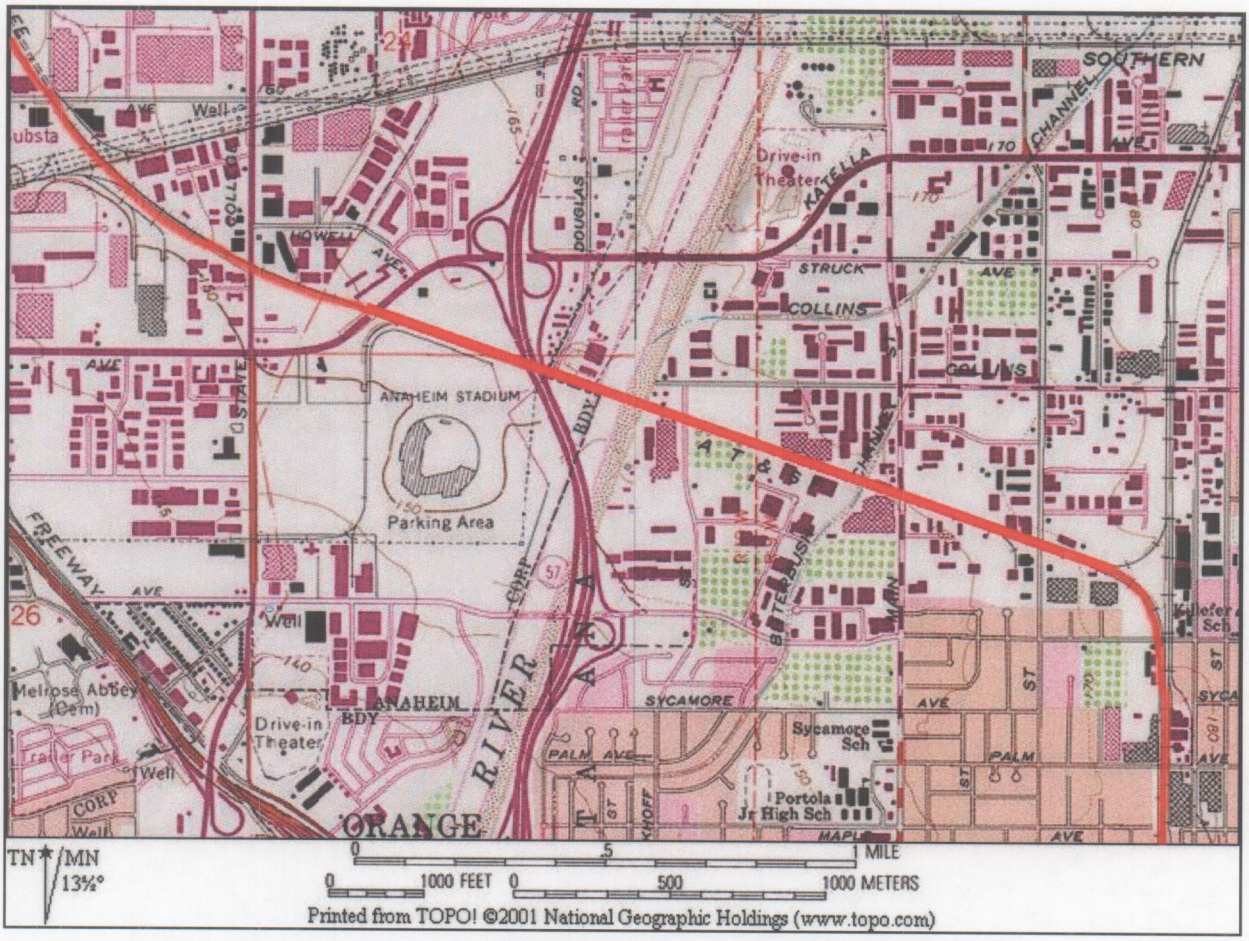
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Anaheim / Orange *Scale: 1 : 24,000 *Date of Map: 1965/1964 photorevised 1981



DPR 523J (1/95)

*Required information

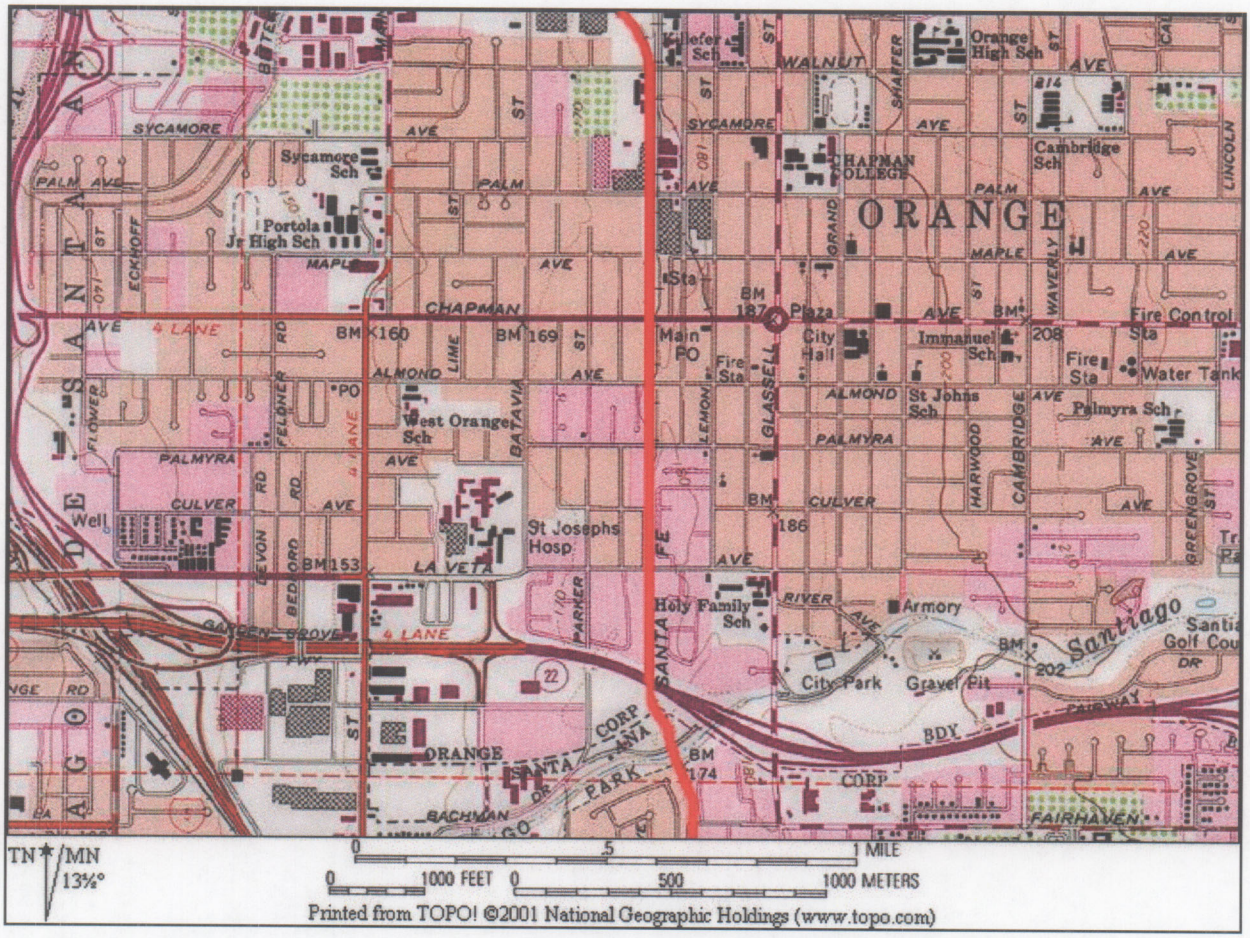
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Orange *Scale: 1 : 24,000 *Date of Map: 1964 photorevised 1981



DPR 523J (1/95)

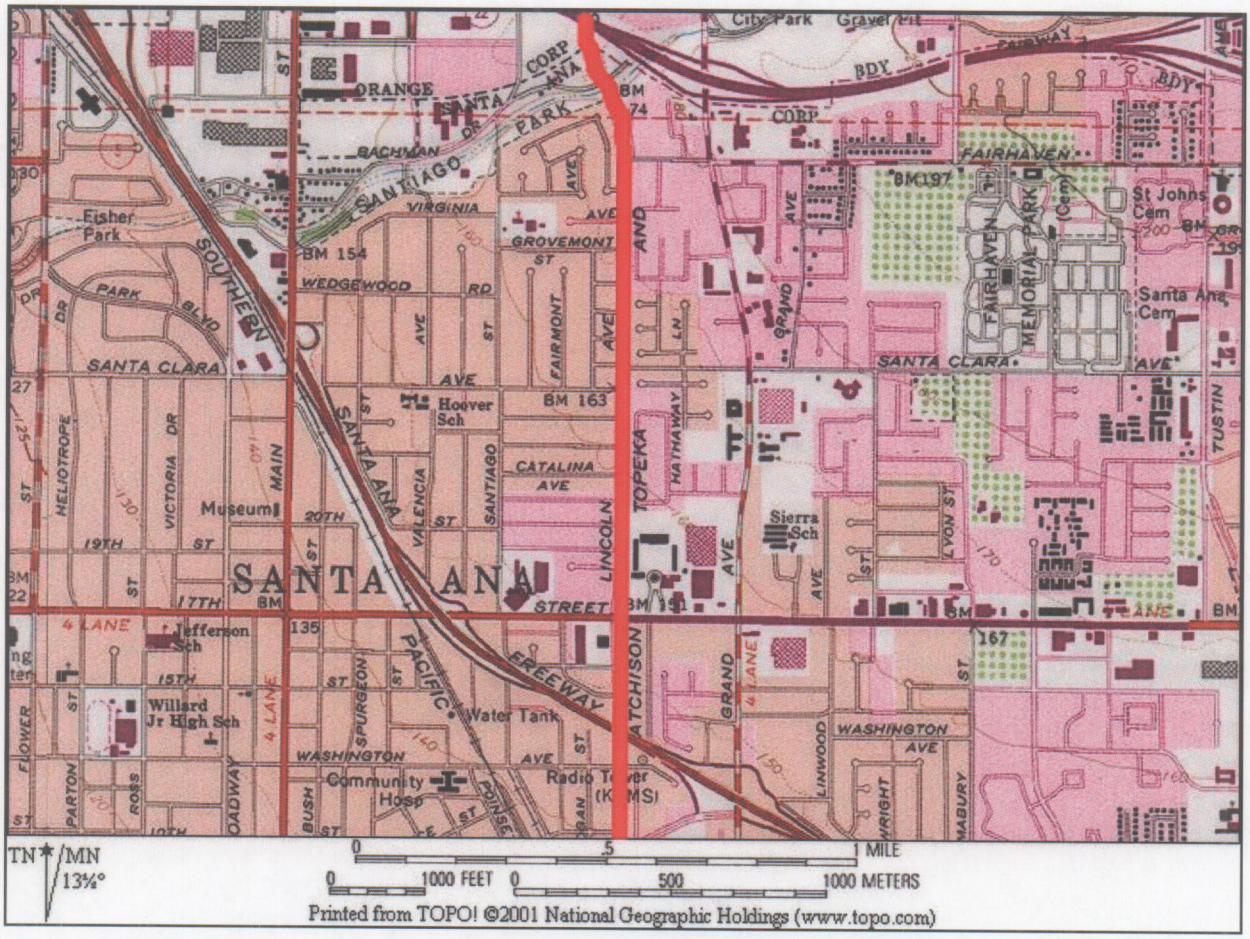
*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Orange *Scale: 1 : 24,000 *Date of Map: 1964 photorevised 1981



DPR 523J (1/95)

*Required information

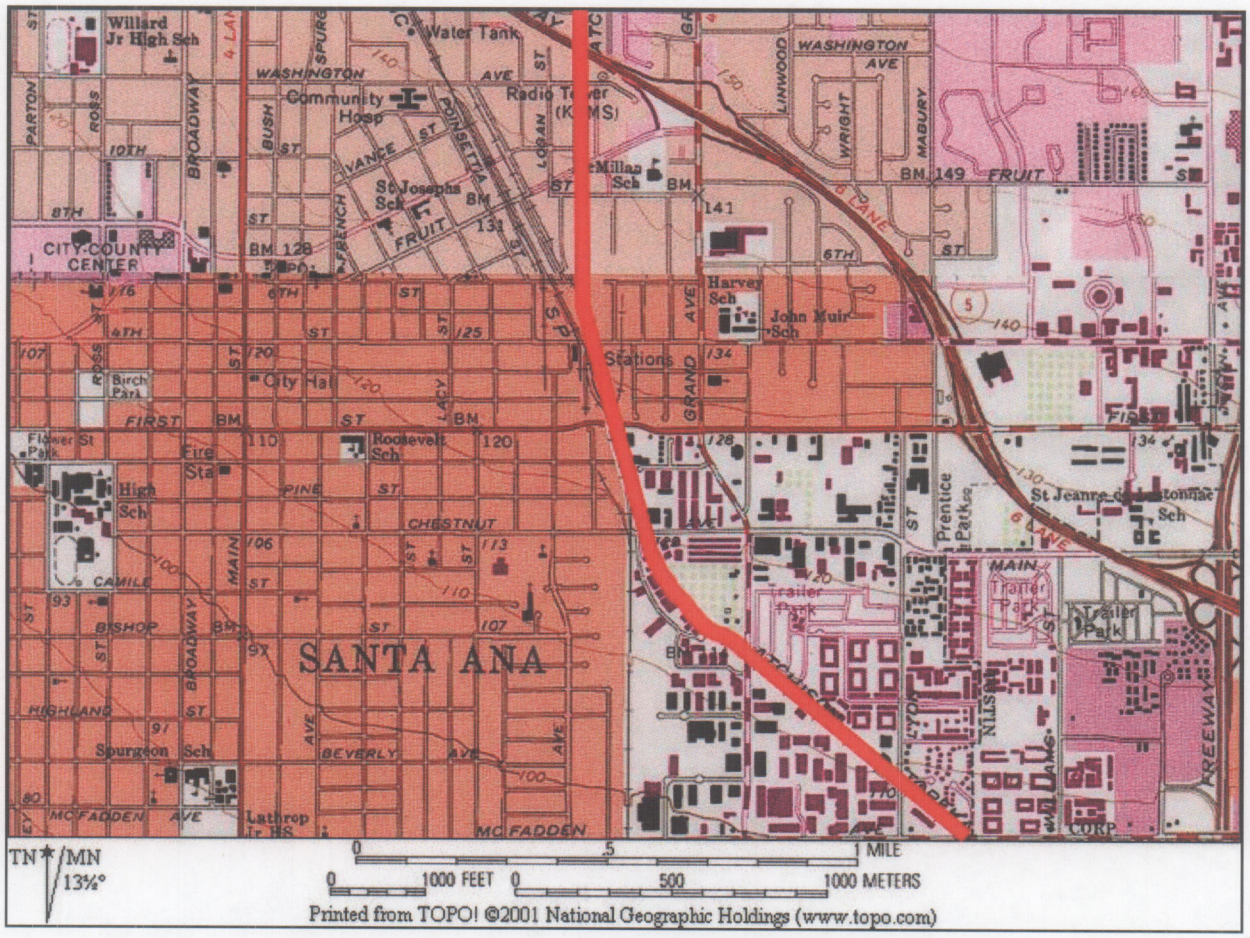
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

Page 8 of 27 *Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Tustin *Scale: 1 : 24,000 *Date of Map: 1965 photorevised 1981



DPR 523J (1/95)

*Required information

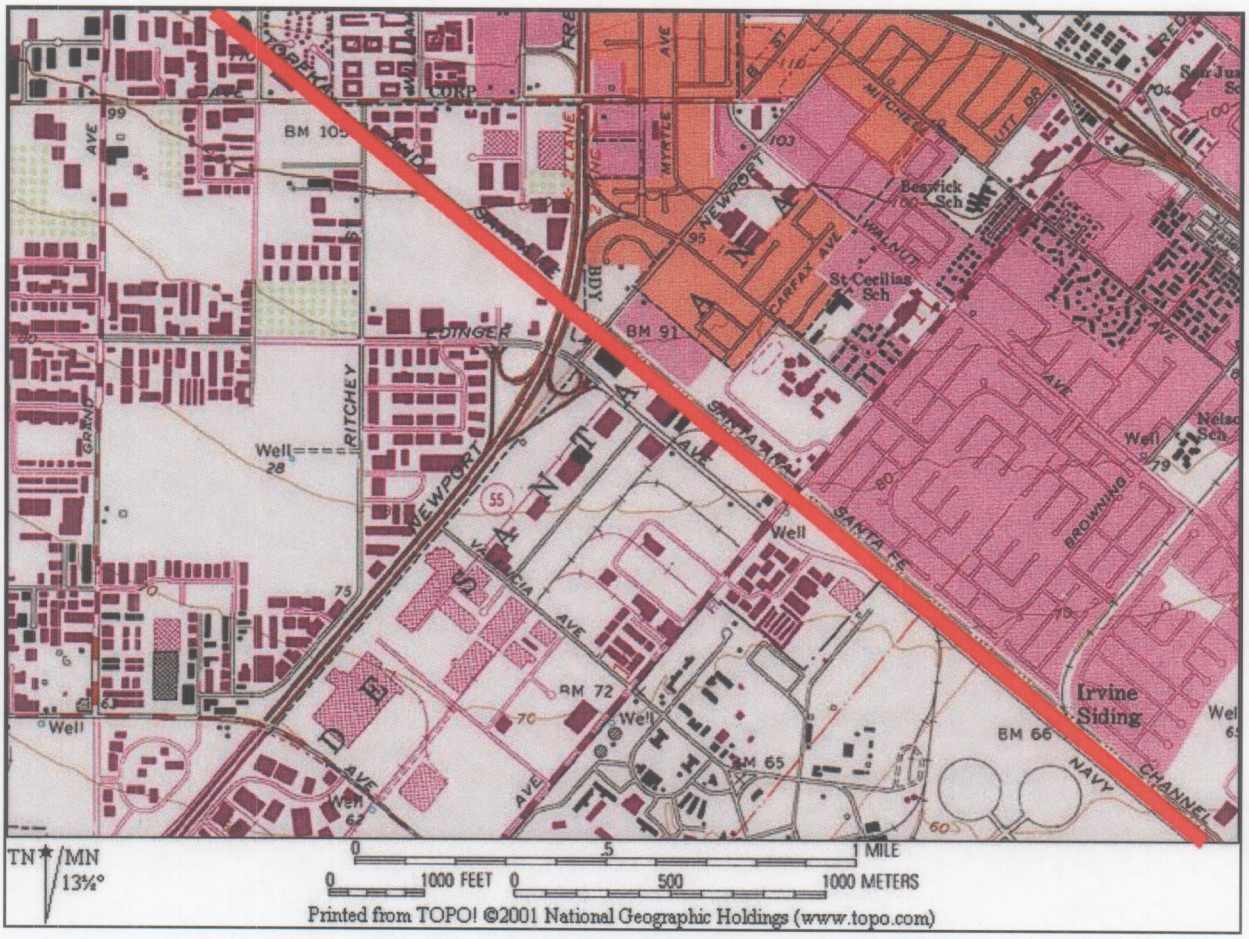
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** Tustin ***Scale:** 1 : 24,000 ***Date of Map:** 1965 photorevised 1981



DPR 523J (1/95)

*Required information

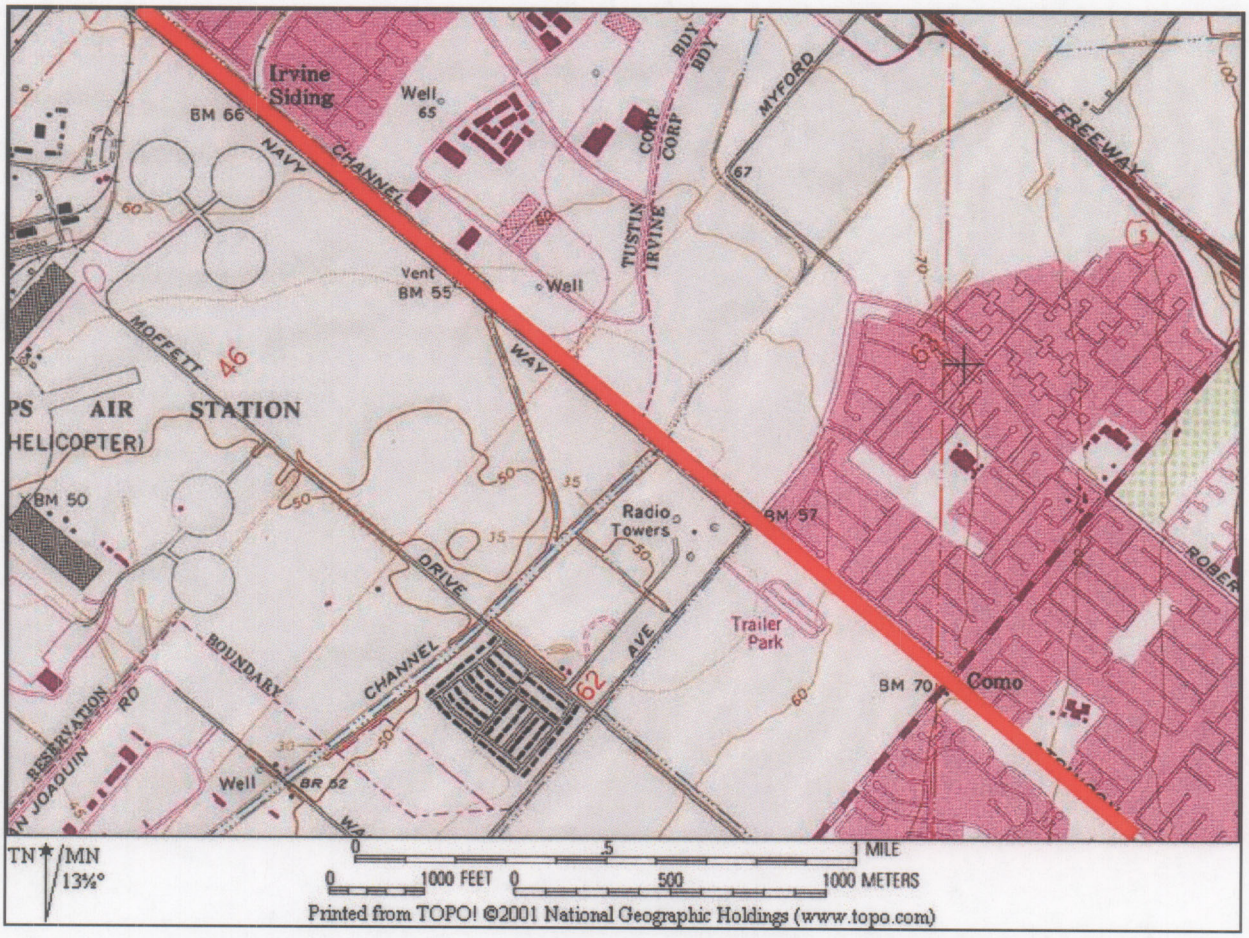
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** Tustin ***Scale:** 1 : 24,000 ***Date of Map:** 1965 photorevised 1981



DPR 523J (1/95)

*Required information

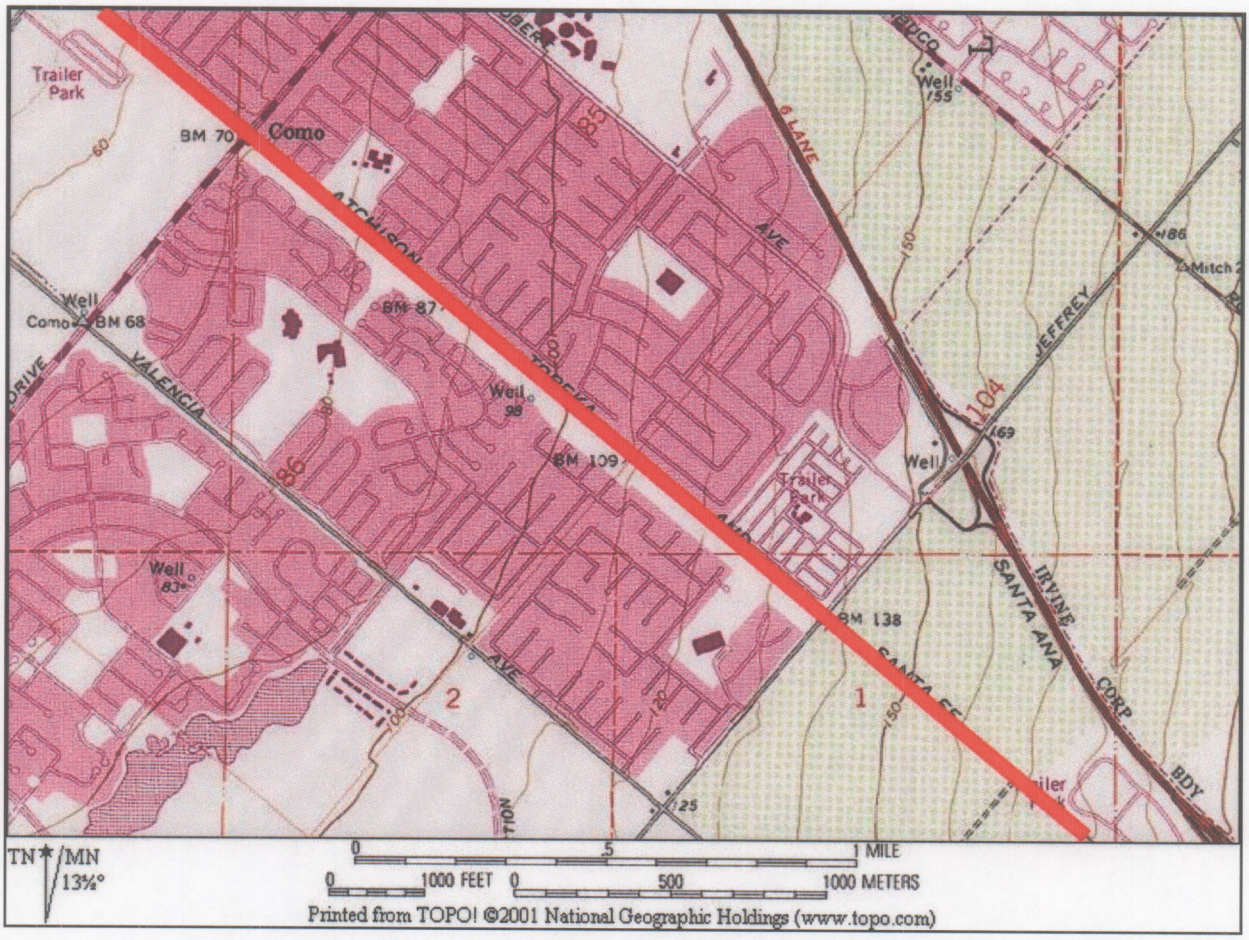
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** Tustin ***Scale:** 1 : 24,000 ***Date of Map:** 1965 photorevised 1981



*Required information

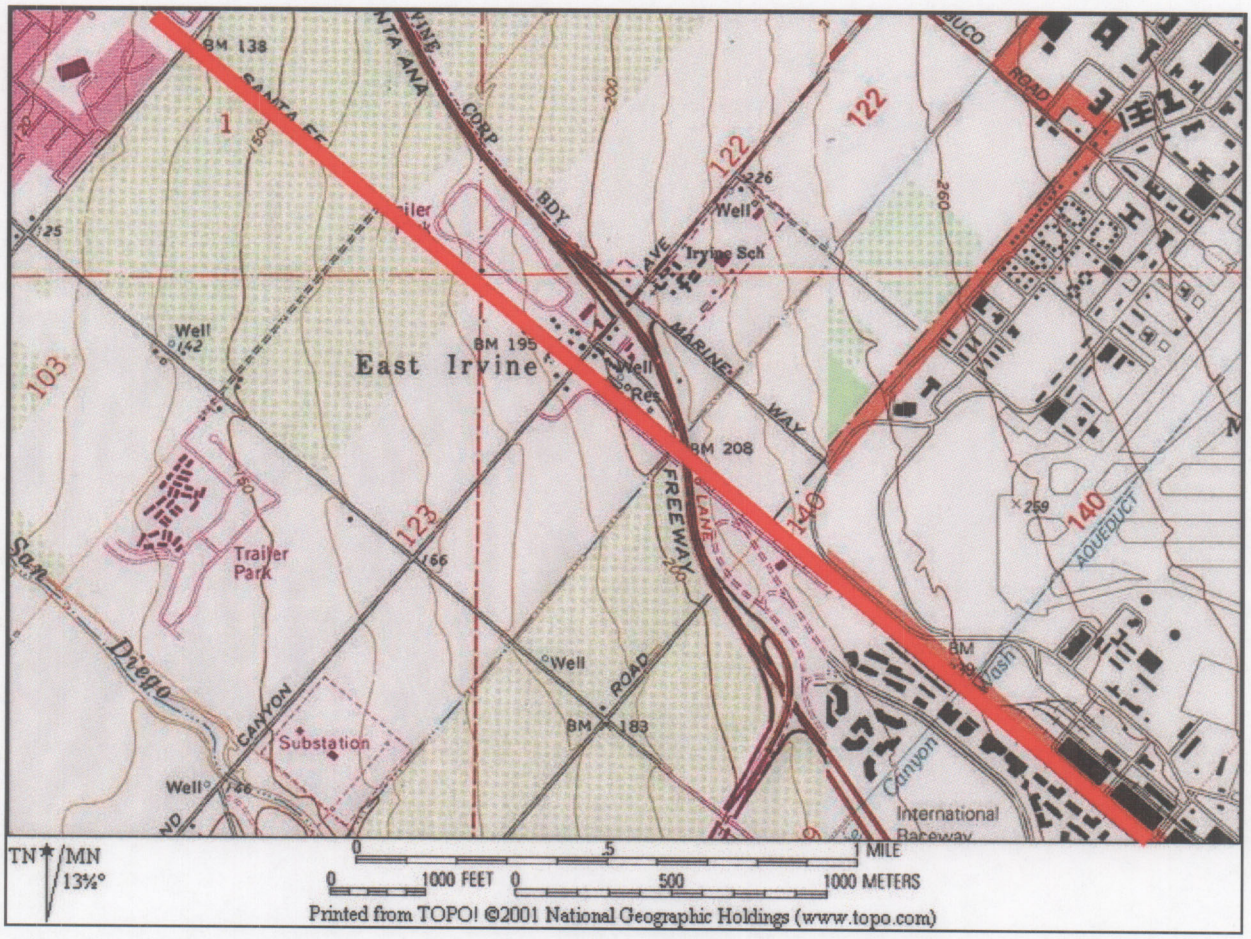
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Tustin / El Toro *Scale: 1 : 24,000 *Date of Map: 1965 photorevised 1981/1997



DPR 523J (1/95)

*Required information

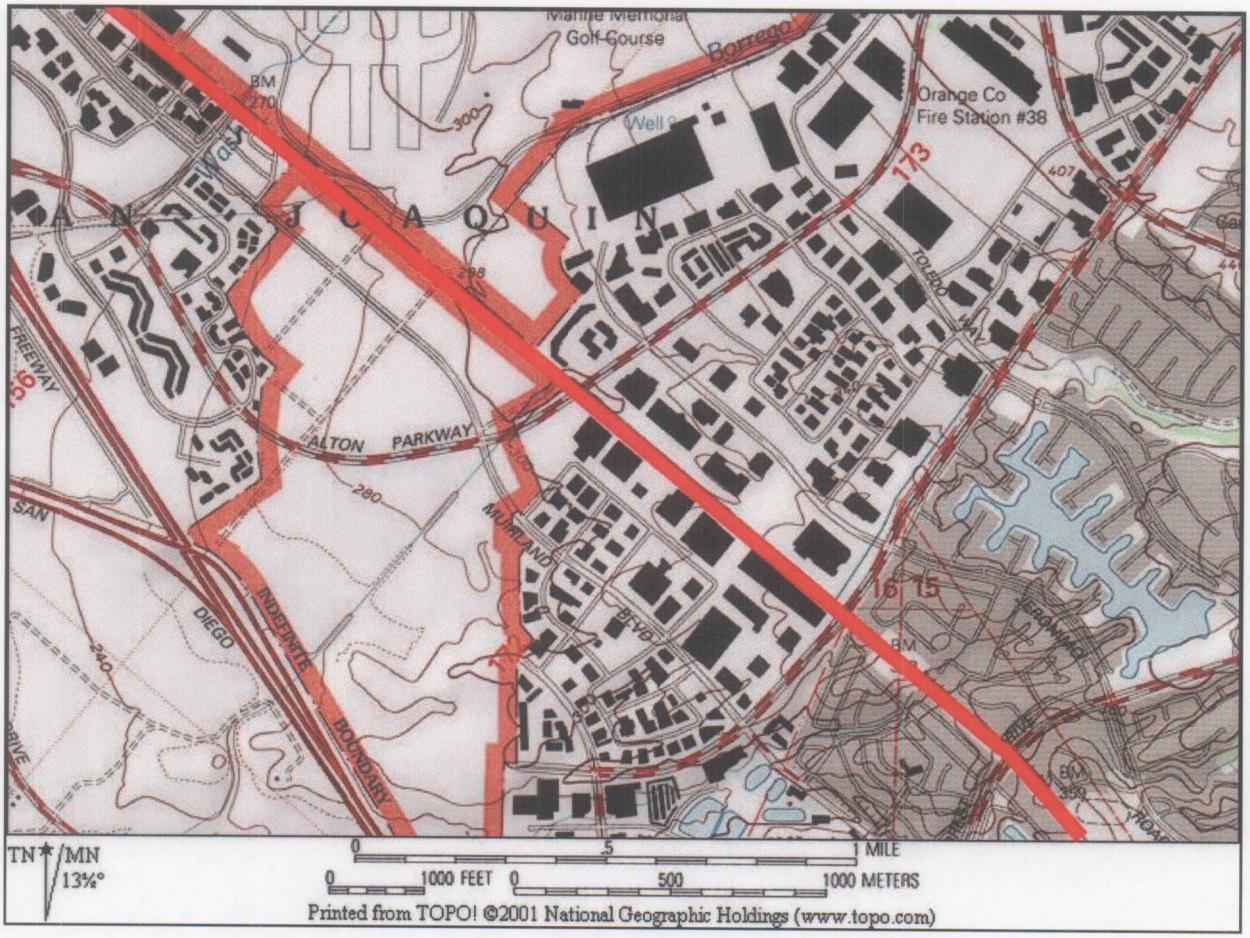
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

Page 13 of 27 *Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: El Toro *Scale: 1 : 24,000 *Date of Map: 1997



DPR 523J (1/95)

*Required information

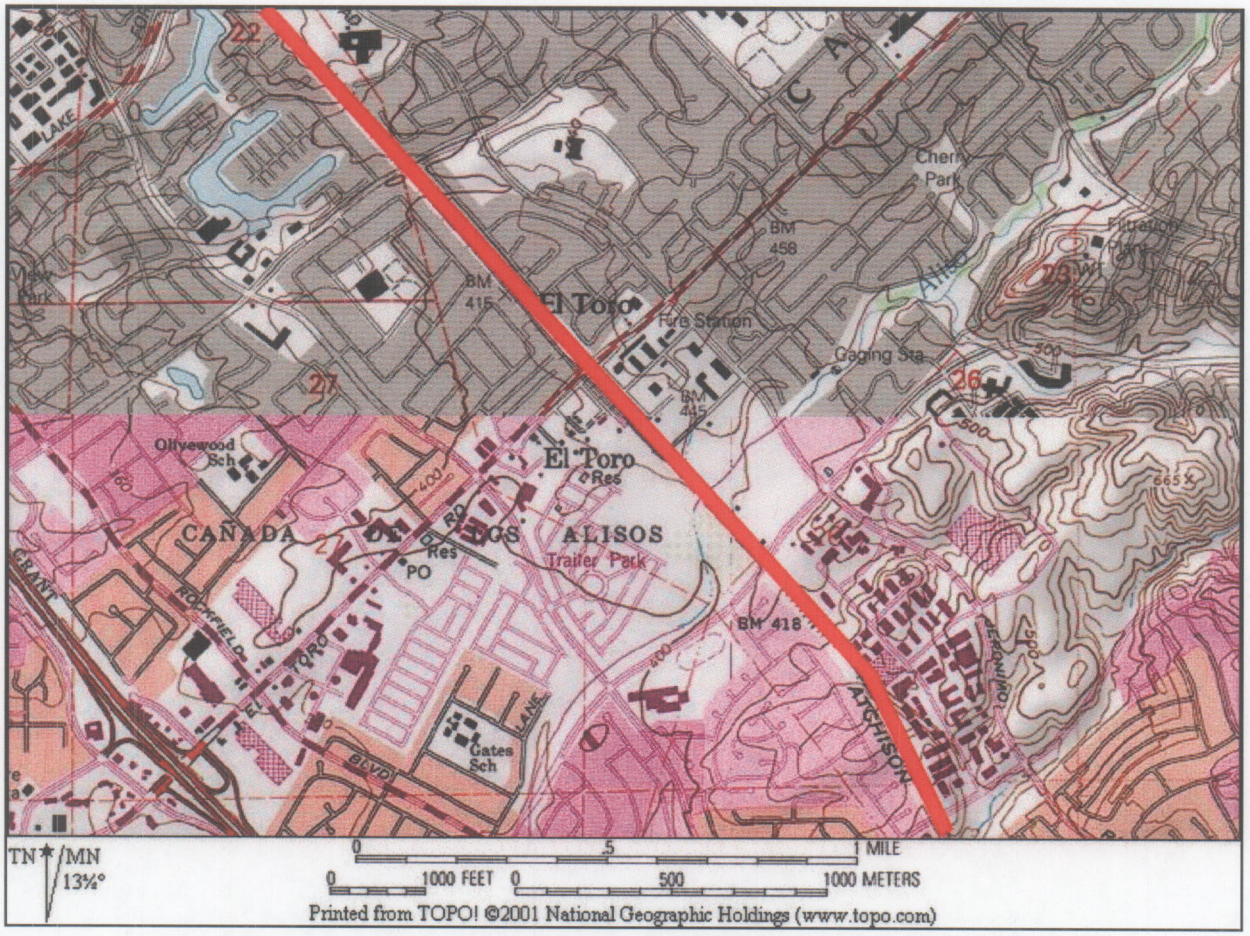
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** El Toro / San Juan Capistrano ***Scale:** 1 : 24,000 ***Date of Map:** 1997/1968 photorevised 1981



DPR 523J (1/95)

*Required information

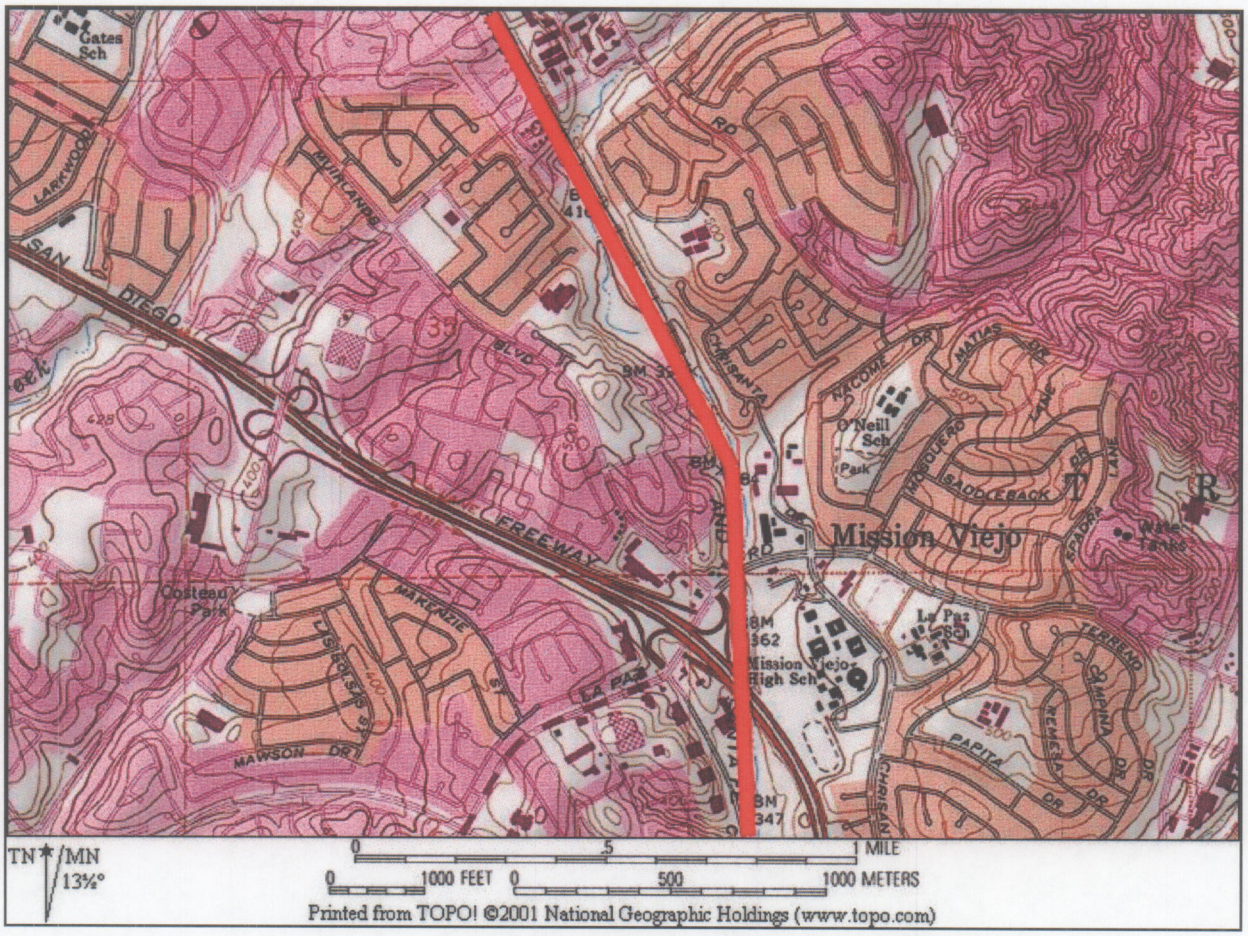
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Juan Capistrano *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1981



DPR 523J (1/95)

*Required information

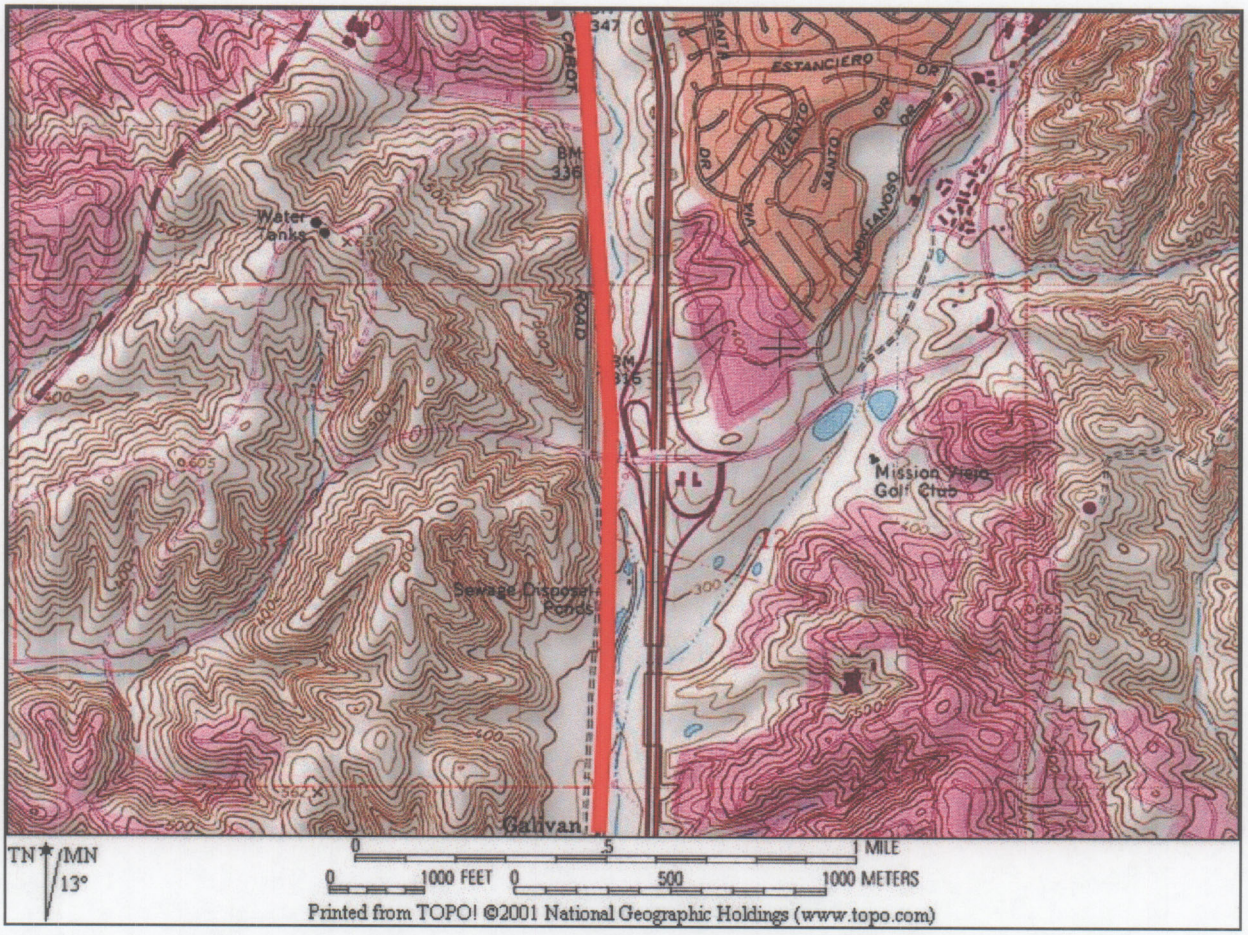
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Juan Capistrano *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1981



DPR 523J (1/95)

*Required information

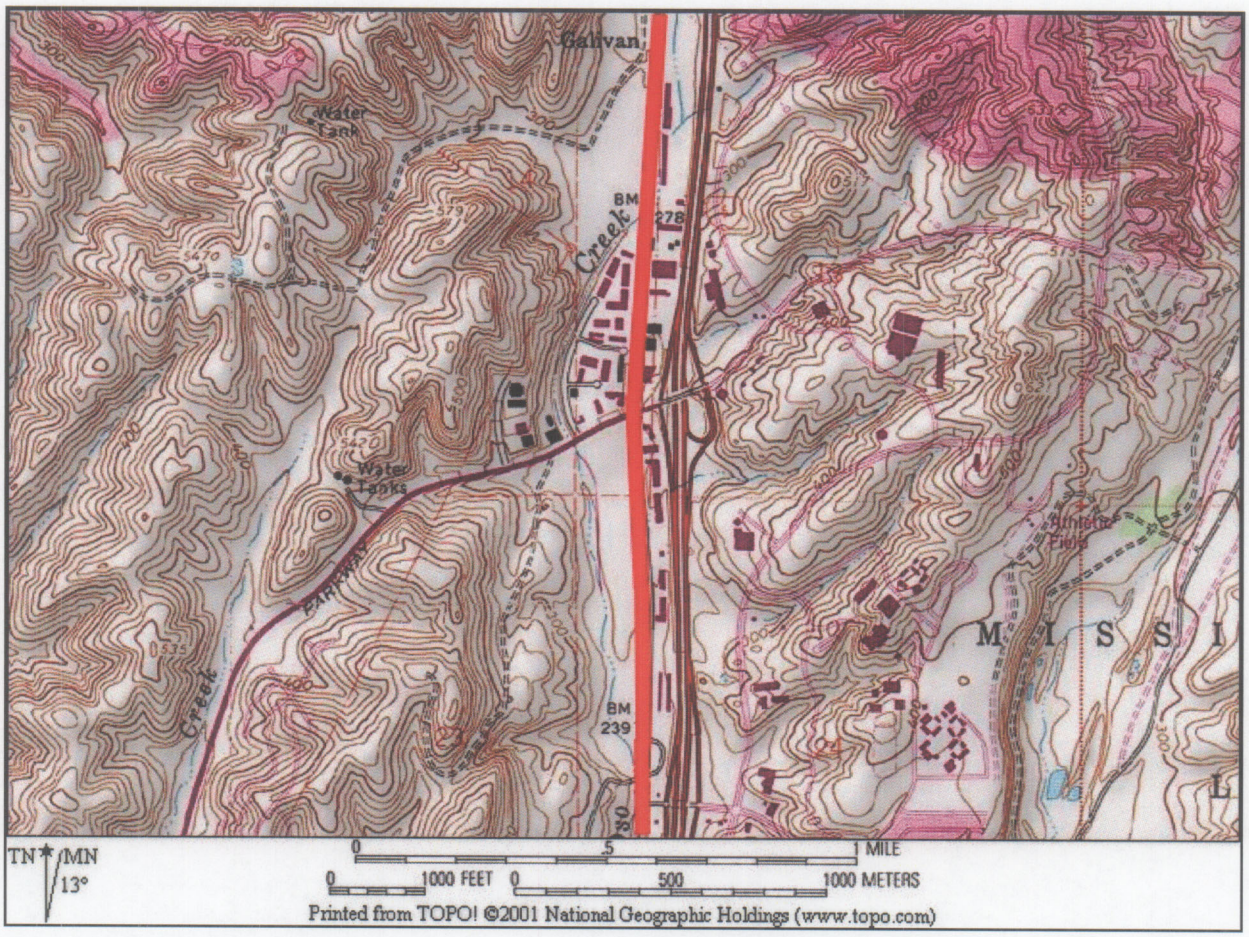
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Juan Capistrano *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1981



DPR 523J (1/95)

*Required information

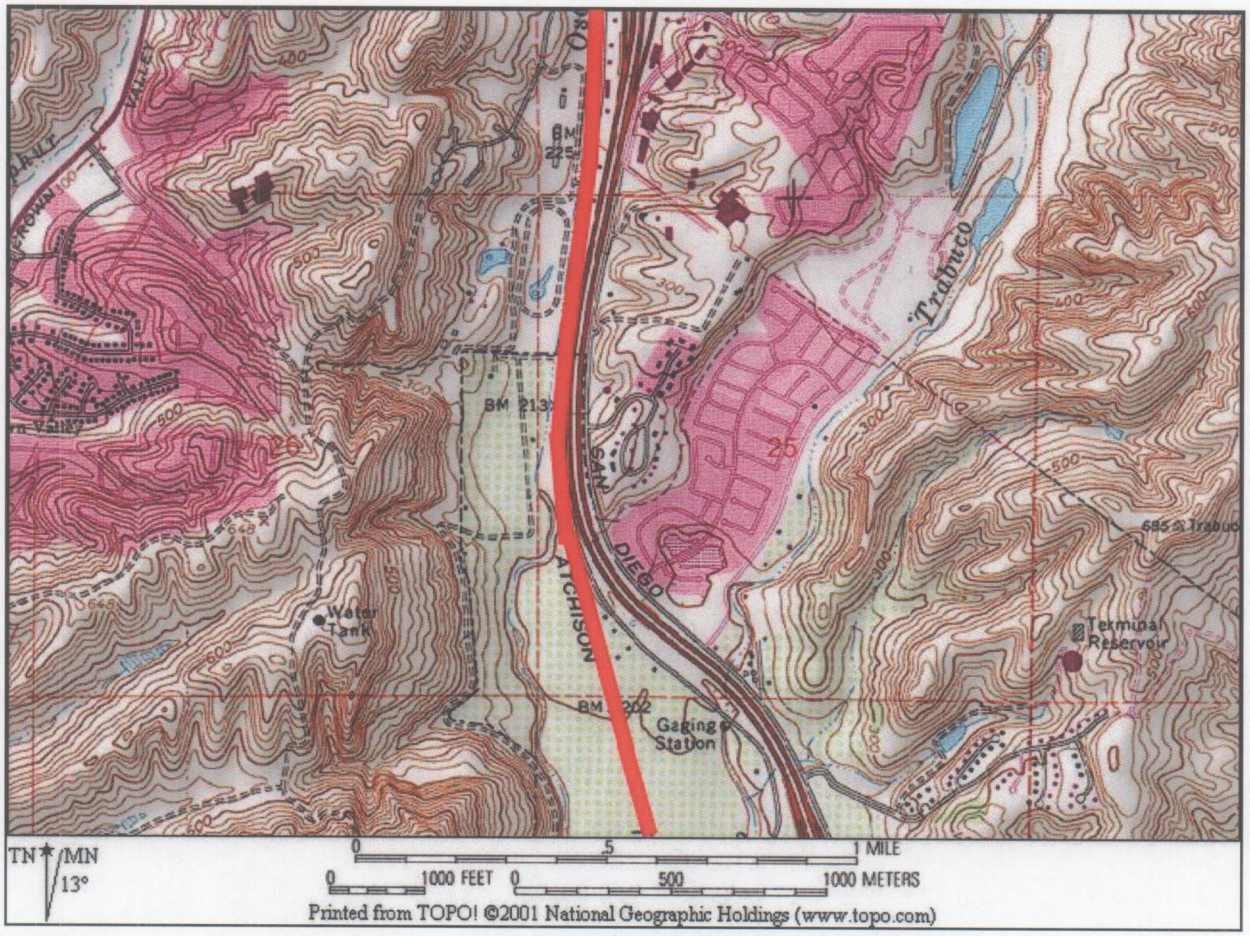
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Juan Capistrano *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1981



DPR 523J (1/95)

*Required information

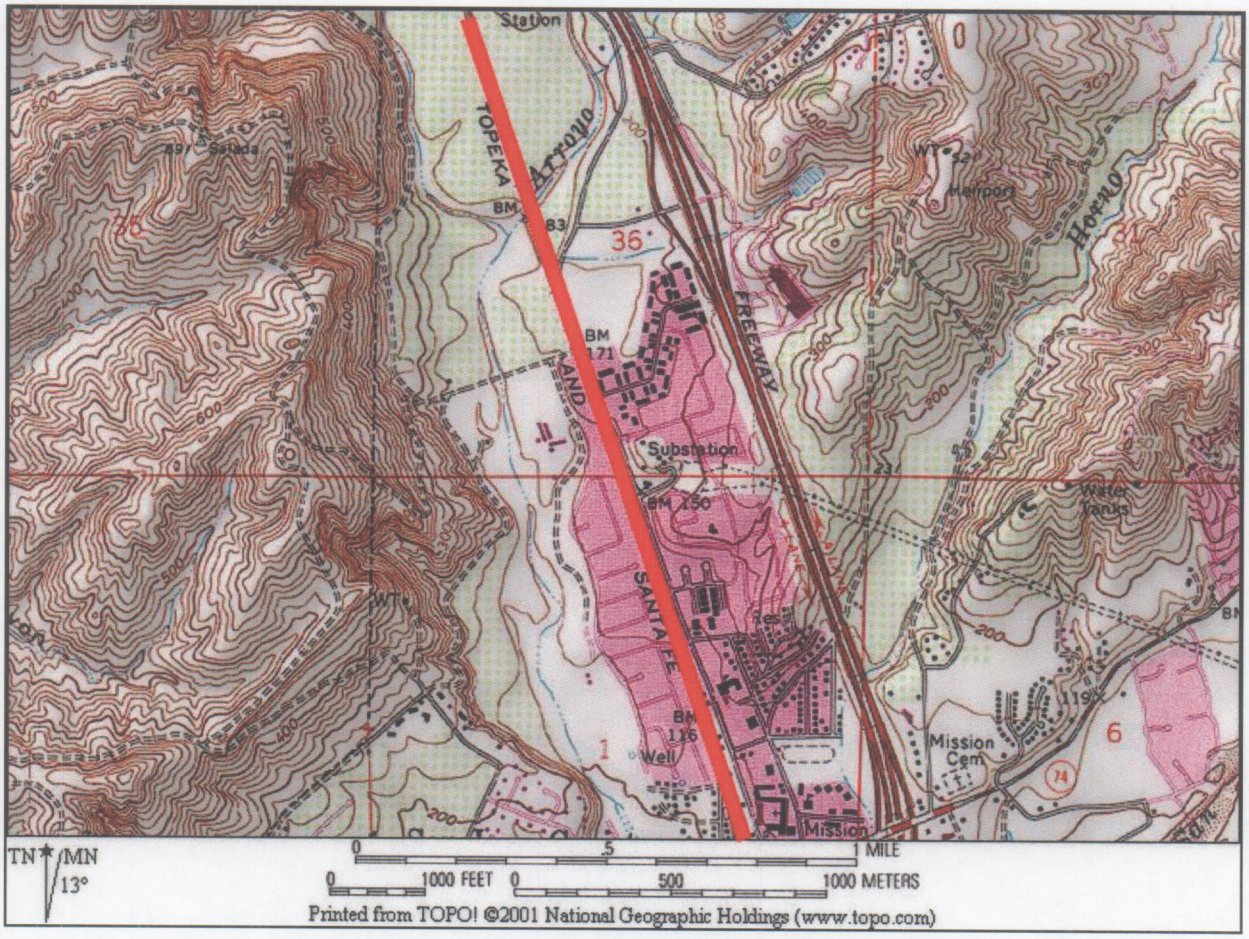
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Juan Capistrano *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1981



DPR 523J (1/95)

*Required information

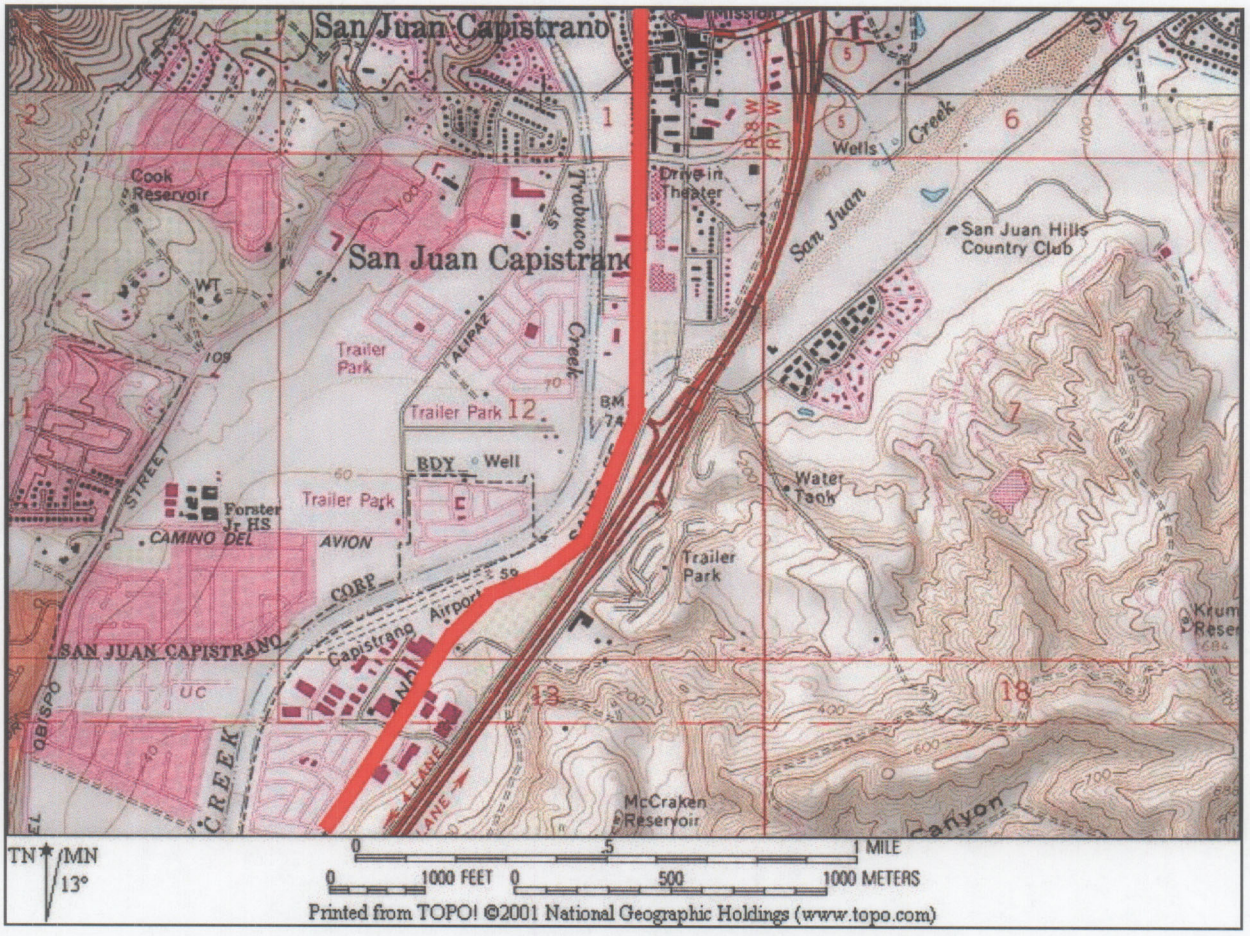
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** Dana Point ***Scale:** 1 : 24,000 ***Date of Map:** 1968 photorevised 1975



DPR 523J (1/95)

*Required information

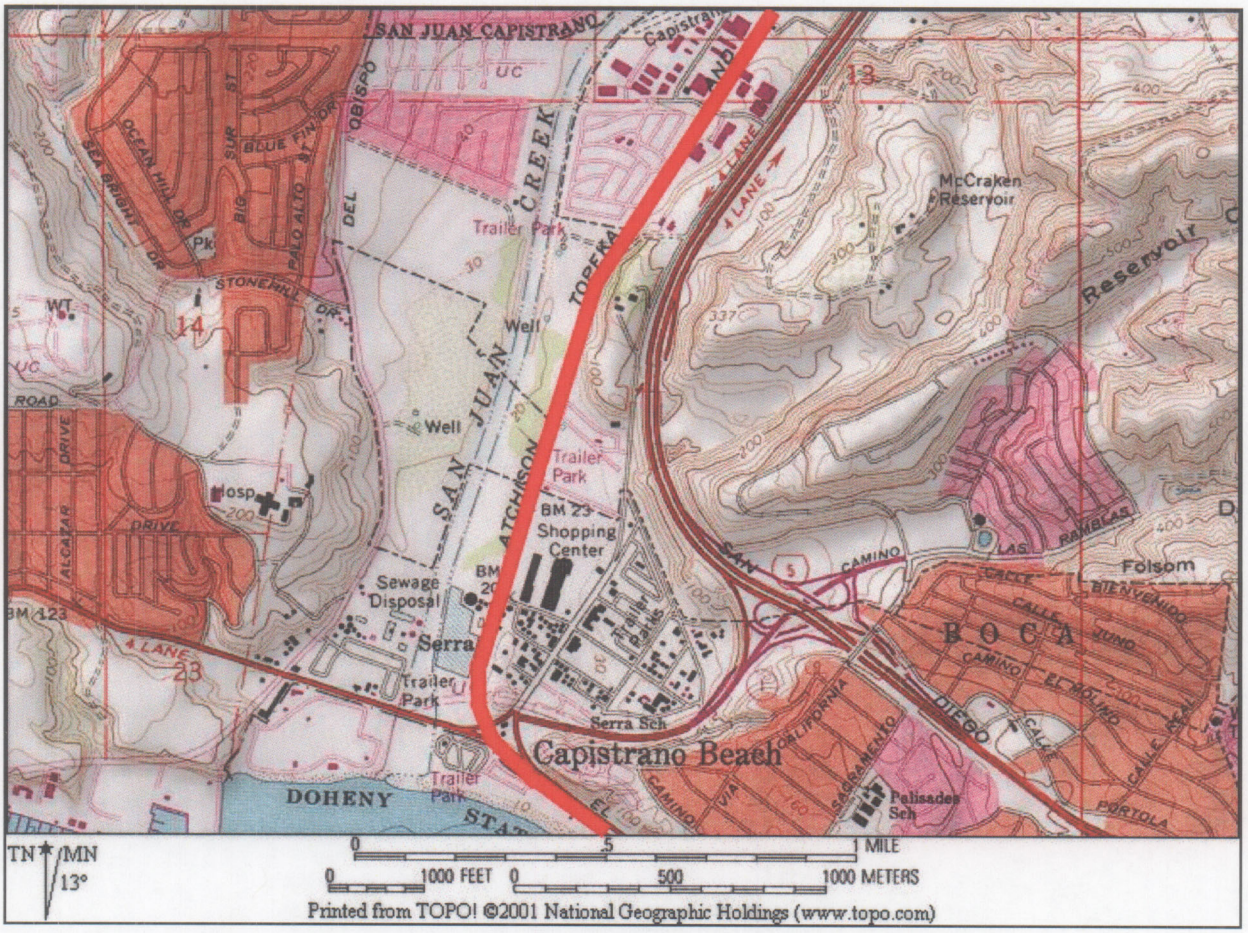
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Dana Point *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1975



DPR 523J (1/95)

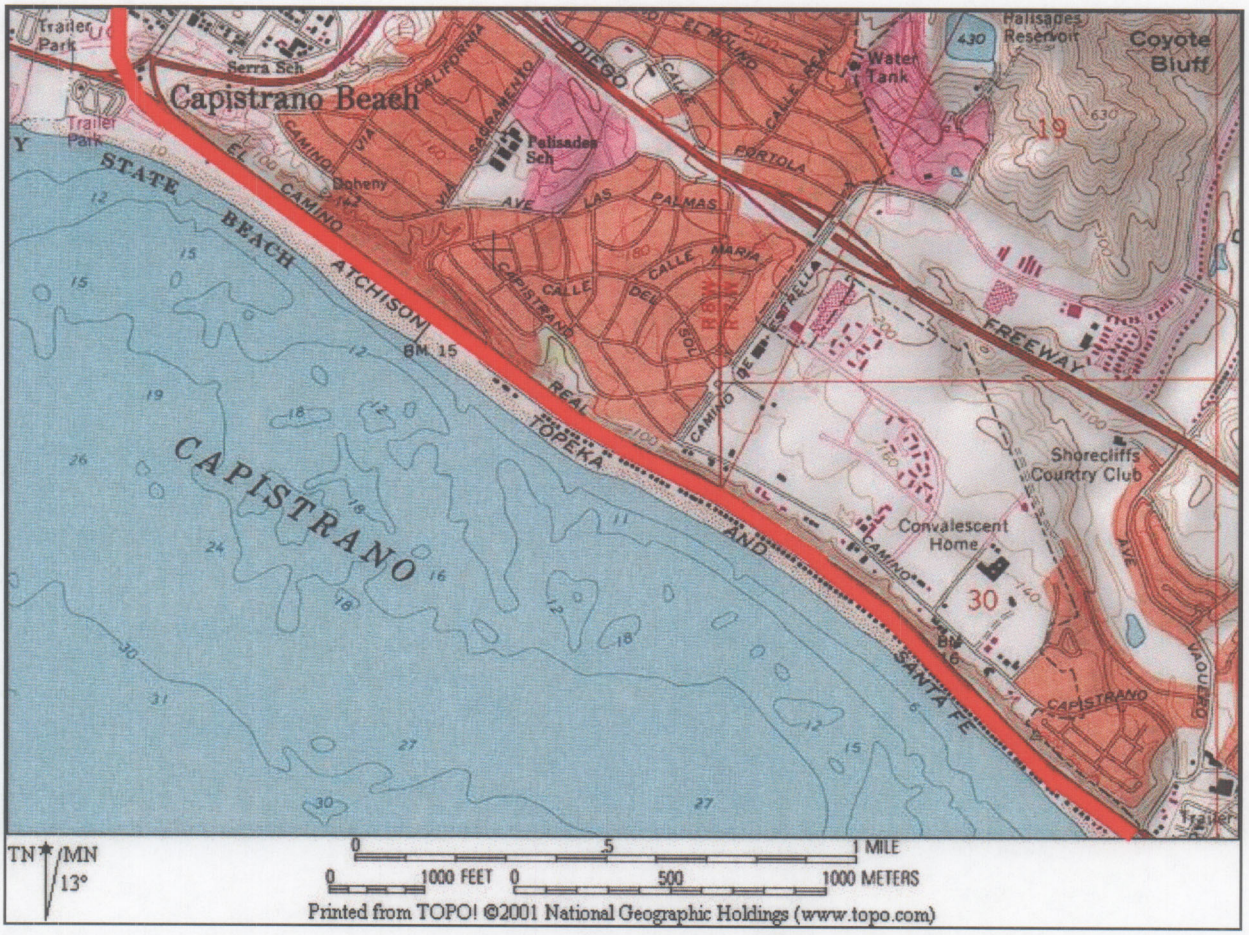
*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Dana Point *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1975



DPR 523J (1/95)

*Required information

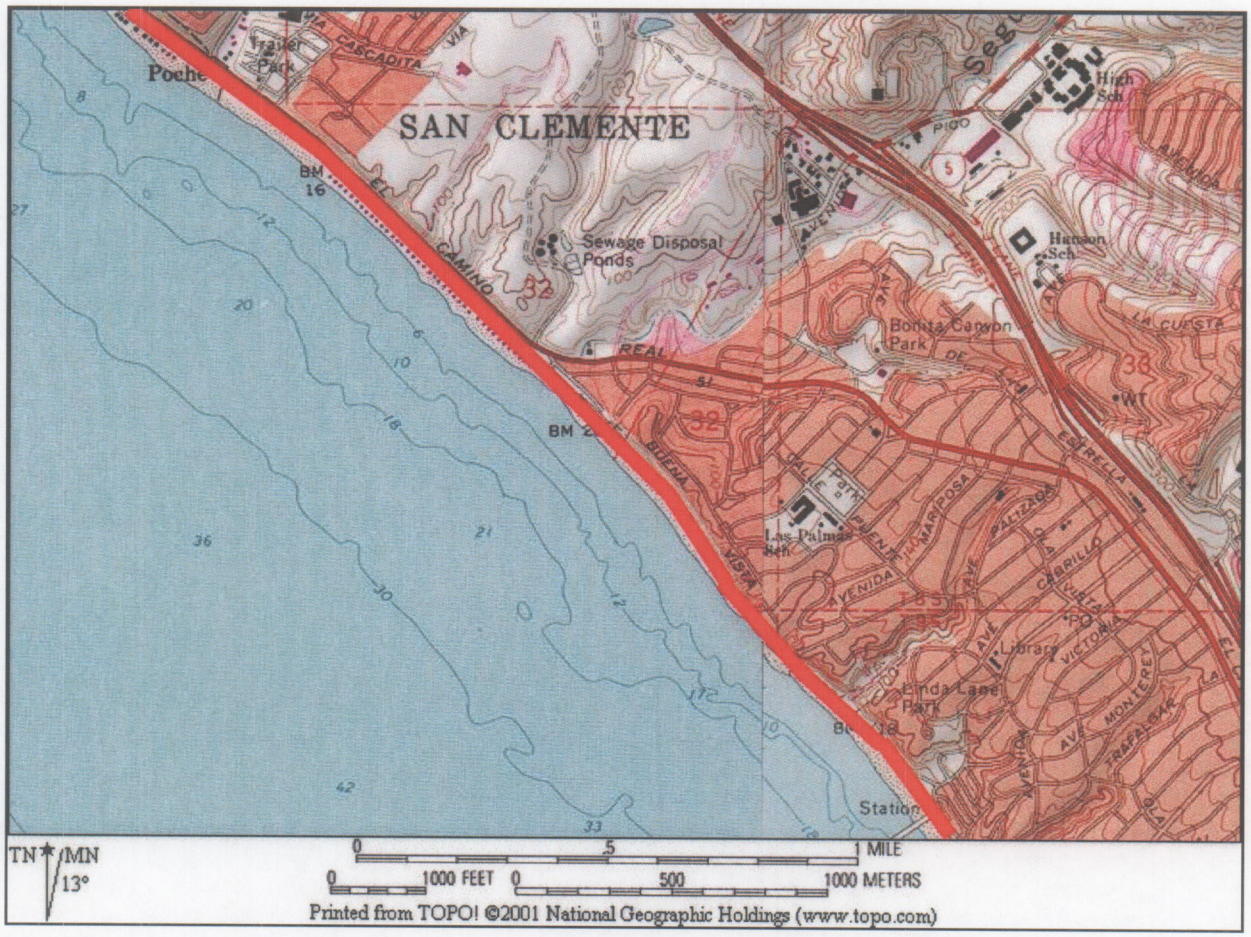
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Dana Point/ San Clemente: 1 : 24,000 *Date of Map: 1968 photorevised 1975



DPR 523J (1/95)

*Required information

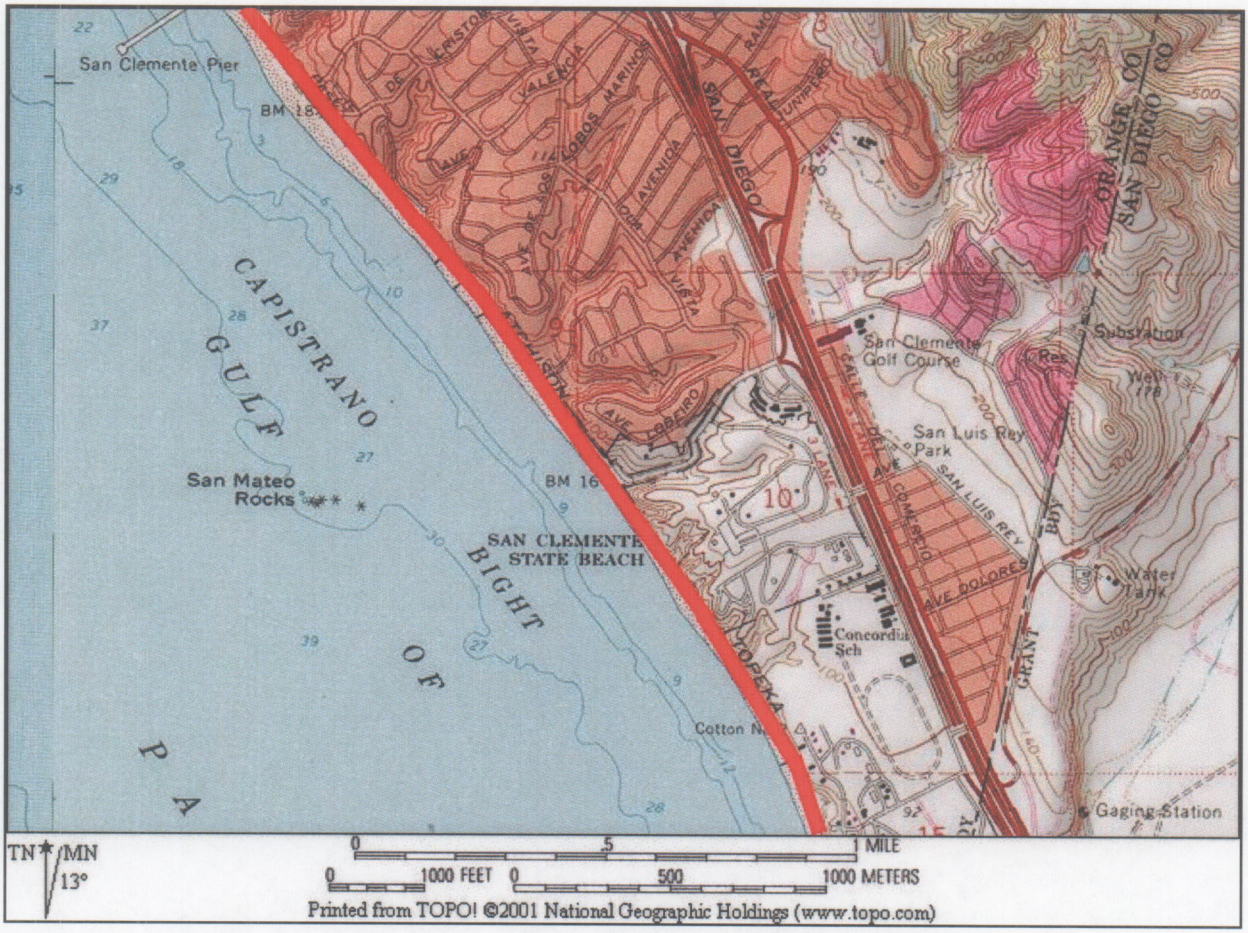
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Clemente: 1 : 24,000 *Date of Map: 1968 photorevised 1975



Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

*Required information

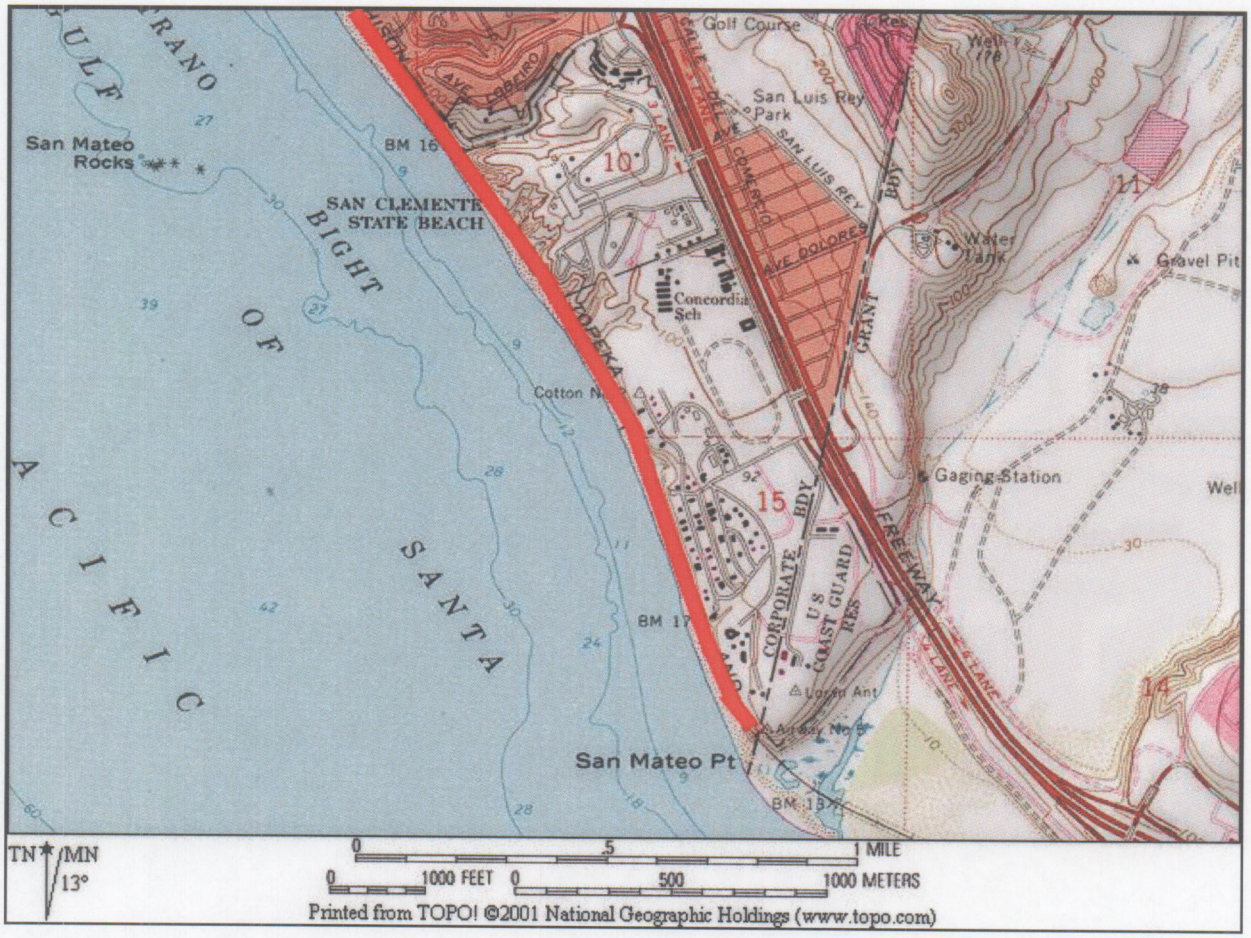
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

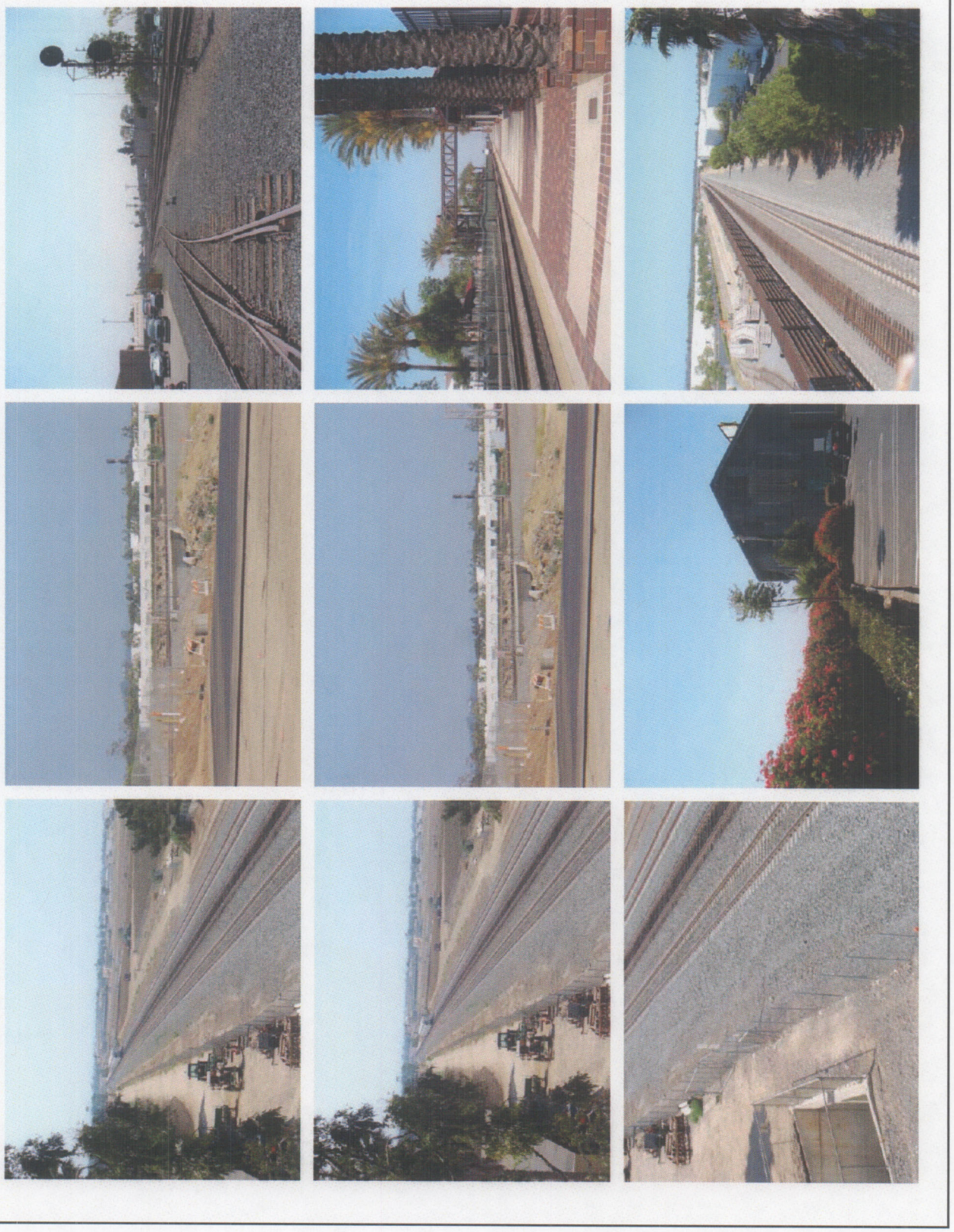
***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** San Clemente: 1 : 24,000 ***Date of Map:** 1968 photorevised 1975



DPR 523J (1/95)

*Required information





***Recorded by:** S McCormick ***Date:** June 2007 ☐ Continuation x Update

DPR 523L (1/95) ***Required information**

State of California — The Resources Agency | Primary # 19-186804/30-17663

DEPARTMENT OF PARKS AND RECREATION | HRI#

PHOTOGRAPH RECORD | Trinomial

Page of | Resource Name or #: Burlington Northern Santa Fe Railway | Year 2007

Camera Format: | **Lens Size:** 35mm

Film Type and Speed: Digital | **Negatives Kept at:** Cogstone

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward	Accession #
5	24		1	Fullerton tracks	east	
5	24		2	Fullerton Station	west	
5	24		3	Proposed Siding area between alton and bake	east	
5	24		4	tracks behine Irvine spectrum	north	
5	24		5	tracks behine Irvine spectrum	north	
5	24		6	Canery	west	
5	24		7	tracks after alton pkwy from overpass	west	
5	24		8	tracks after alton pkwy	west	
5	24		9	tracks after alton pkwy	down	
5	24		10	Paseo de colins bridge	south	
5	24		11	track east of Irvine station	ne	
5	24		12	tracks at orangethorpe	south	
5	24		13	tracks east of fullerton station	north west	
5	24		14	tracks under highway 73 toll	south	
5	24		15	orangethorpe crossing	south	
5	24		16	orangethorpe crossing	north	
5	24		17	Irvine station	east	
5	24		18	Irvine staion	west	

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code | Reviewer | Date

Page 1 **of** 6 ***Resource Name or #:** Burlington Northern & Santa Fé Railroad (Nos. 26, 28, 30, 31, 103-109)

P1. Other Identifier: Atchison Topeka & Santa Fé Railroad

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Los Angeles **Date:** 1966 (photo revised 1981 and 1994) **T** 1S; **R** 13W; unsectioned; S.B.**B.M.**

c. Address: City: Los Angeles Zip: 90023

d. UTM: Zone: 11 ; 38657655 mE/ 3767117.33 mN (G.P.S. centerpoint)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: ~245 feet above msl

Tracks west of the Los Angeles River.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Burlington Northern & Santa Fé Railroad (BNSF) tracks are comprised of a set of 3 tracks, which run roughly north-south on the west side of the Los Angeles River. The sets of continuous welded tracks are arranged in a linear fashion, parallel to one another. This segment of tracks is contiguous at the north and south ends to additional portions of railroad track.

The tracks are not distinguishable from other steel, standard gauge, freight railroad tracks: the ballast or gravel bed has concrete or wood "sleeper" ties, laid perpendicular to the rails and set onto the bed. The rails are extruded steel, consisting of the base, web and ball or head. The rails are set atop the ties, connected by spikes (many of which are dated) and/or lagscrews. The fundamental technology of railroad tracks has changed minimally since the late 1800s. The tracks have been reconfigured form time to time, as was necessary to accommodate the railroad and their market needs. The trackbed is roughly flat (with berms at the tracks), and this segment is bordered by Mesquit Street and MetroRail/Amtrak shared trackage on the west side, Metrolink and the chanelized Los Angeles River on the east side. The 6th Street Viaduct notably runs perpendicular to the tracks, overhead.

***P3b. Resource Attributes:** (List attributes and codes) HP11 (Engineering structure); HP39 (Other-railroad)

***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View north from crossover, July 11 2007 DSCN3253.jpg

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric
☐ Both
circa 1888

***P7. Owner and Address:**
Burlington Northern Santa Fé Railway
2650 Lou Menk Drive
Fort Worth, TX 76131-2830

***P8. Recorded by:** (Name, affiliation, and address)
Francesca G. Smith and
Caprice D. (Kip) Harper
Parsons
100 W. Walnut Street, B-Pod 2nd Fl.
Pasadena, CA 91124

***P9. Date Recorded:** 07/11/07

***P10. Survey Type:** (Describe)
Intensive Survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")

Historical Resources Evaluation Report: 6th Street Viaduct Seismic Improvement Project, prepared by Francesca G. Smith, Parsons, 100 W. Walnut Street, Pasadena, CA 91124, 2007

***Attachments:** ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z (Segment only)

***Resource Name or #** (Assigned by recorder) Burlington Northern Santa Fé Railroad (Nos. 26, 28, 30, 31, 103-109)

B1. Historic Name: Southern California Railway Company/Atchison Topeka & Santa Fé Railway
B2. Common Name: Burlington Northern Santa Fé Railroad
B3. Original Use: railroad tracks B4. Present Use: railroad tracks
***B5. Architectural Style:** N/A
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Ongoing maintenance of the tracks for more than 100 years (dates unknown).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**
***B8. Related Features:**

B9a. Architect: N/A **b. Builder:**
***B10. Significance: Theme:** **Area:**
Period of Significance: **Property Type:** **Applicable Criteria:**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This segment of railroad is part of the larger, nationwide Burlington Northern/Santa Fé (BNSF) railway system. Atchison, Topeka, and Santa Fe Railway (AT&SF) played a prominent role in the development and economic growth of Los Angeles, southern California, the west and the United States. This rail line reached Los Angeles in 1888 as the Southern California Railway Company, these routes were acquired by the AT&SF in 1905 (Marshall). The AT&SF was the one of the first continental railroad routes to serve California, and broke the Southern Pacific Railroad's monompoly on the area. Because of its capability to move goods, services and people in and out of southern California, this rail system (among others) was instrumental in the development of Los Angeles as a major commercial center. This rail system facilitated transportation of goods to local ports and this segment of tracks is a very small part of this larger, significant historical pattern which help shaped the development of the region (*FEIR/FEIS).*

Although modestly recognizable to its original appearance, the remaining railroad tracks have been reconfigured from time to time and altered by maintenance for more than 100 years. Because of these changes, this segment of tracks lacks integrity of materials, as well as workmanship. In addition, the surrounding landscape has changed over the years and the resource no longer retains integrity of setting. Because of described alterations to materials, workmanship and setting, this property is not eligible for listing in the National or California registers under Criterion C or 3 for its architecture. In addition, no evidence was discovered to warrant consideration under Criterion D/4. While the entire railroad line is likely eligible for the National and California registers, this segment no longer retains sufficient integrity to qualify for either under Criteria A/1 or B/2.

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**
FEIR/FEIS Los Angeles Union Station Run-Through Tracks Project December 2005, 3-5.16.
James Marshall, *Santa Fe, The Railroad that Built an Empire*

B13. Remarks:

***B14. Evaluator:** Francesca G. Smith

***Date of Evaluation:** 07/11/07

(Sketch Map with north arrow required.)

(This space reserved for official comments.)

State of California — The Resources Agency Primary #
DEPARTMENT OF PARKS AND RECREATION HRI #
LINEAR FEATURE RECORD
Trinomial

 Resource Name or #: (Assigned by recorder) Burlington Northern/Santa Fé Railroad (Nos. 26, 28, 30, 31, 103-109)

L1. Historic and/or Common Name: Burlington Northern/Santa Fé Railroad

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:**

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) 11S, 386559.68mE/ 3767192.40mN (northernmost point) and 11S, 386589.00mE/3767038.38mN (southernmost point)

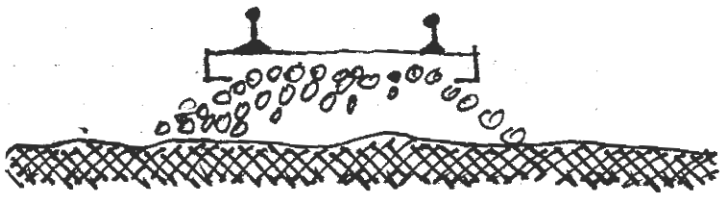
The approximately 450- foot-long segment is located on the west side of the Los Angeles River at the 6th Street Viaduct.

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.) The Atchison, Topeka & Santa Fé Railway, foundedi n 1959, was the third transcontinental railroad to reach Los Angeles in 1885. The Santa Fé lines "entered from the east and from the south along the river, meeting at [their] La Gange (location) station" (Mikesell, "LA River Bridges," 368). The Santa Fé merged with Burlington Norther Railroad in 1996, creating the Burlington Northern and Santa Fe Railway (BNSF).

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

a. Top Width: 4′- 8.5 ″ (Standard guage)
b. Bottom Width: +- 9′-0″ per track
c. Height or Depth: 5″ (track- top to bottom)
d. Length of Segment: +-450 feet

L4e. Sketch of Cross-Section (include scale) **Facing:**
sketch of section (no scale)



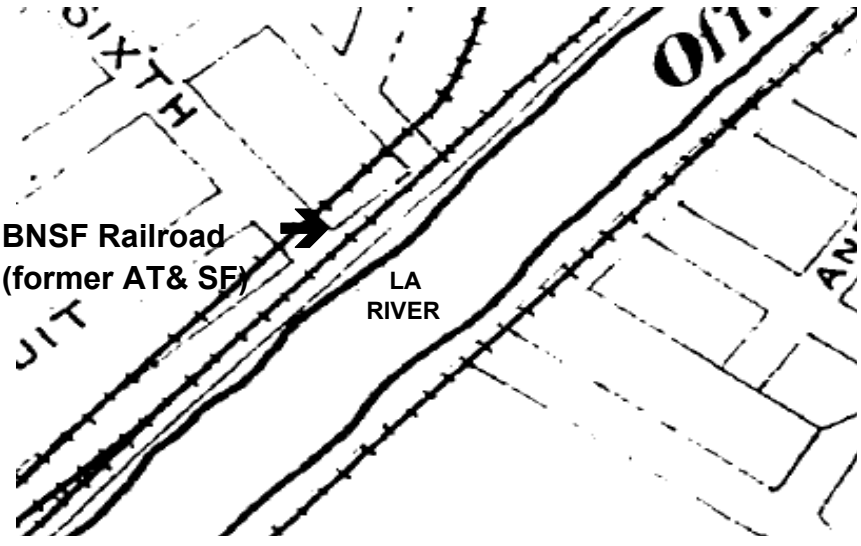
L5. Associated Resources:

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.) Located on the west side of the Los Angeles River, a channelized flood control channel. Situated beneath 6th Street Viaduct.

L7. Integrity Considerations: This segment has been subject to ongoing maintenance, the Los Angeles River has been channelized and industrial urban development has greatly altered the integrity of setting of the railroad.

L8b. Description of Photo, Map, or Drawing (View, scale, etc.)

L8a. Photograph, Map or Drawing



Annotated excerpt from *Sanborn Fire Insurance Co. Map of Los Angeles,* Volume 1, Sheet 0, 1894.

See L8

L9. Remarks:

L10. Form Prepared by: (Name, affiliation, and address)
Francesca G. Smith and
Caprice D. (Kip) Harper
Parsons
100 W. Walnut Street
Pasadena, CA 91124

L11. Date: 07/11/07

DPR 523E (1/95)

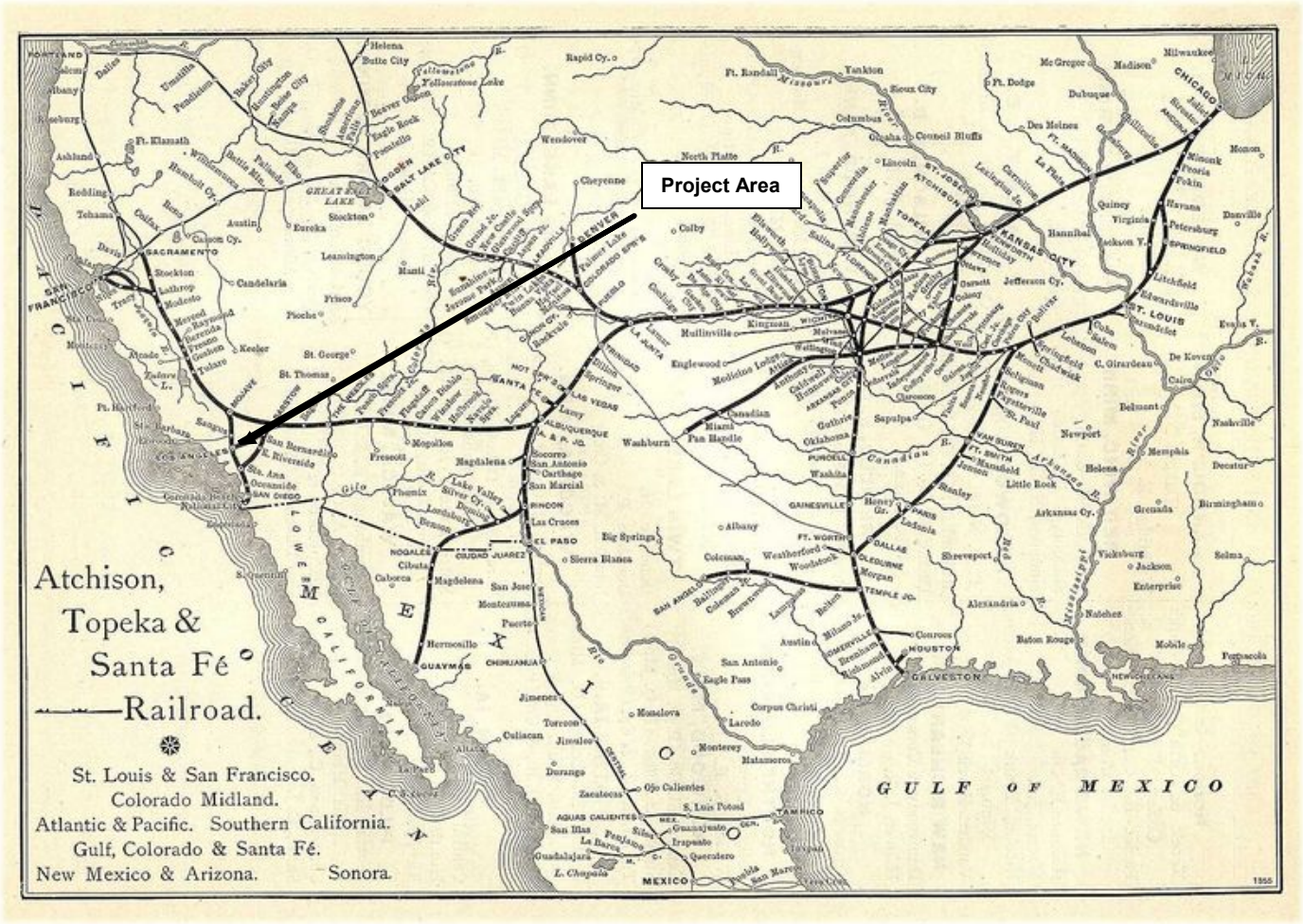
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial #

 ***Resource Name or # (Assigned by recorder)** Burlington Northern & Santa Fe Railroad (Nos. 26, 28, 30, 31, 103-109)

***Recorded by:** Francesca G. Smith and Caprice D. (Kip) Harper ***Date:** 05/24/07 ☒ Continuation ☐ Update

P5a. Drawing:



P5b. Description of Drawing: Annotated excerpt of Atchison, Topeka & Santa Fe Railroad [sic] Route from ***Grain Dealers and Shippers Gazetteer.***, depicting the entire route in 1881. General project area is noted.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial #

 *Resource Name or # (Assigned by recorder) Burlington Northern & Santa Fe Railroad (Nos. 103-109)

*Recorded by: Francesca G. Smith and Caprice D. (Kip) Harper *Date: 05/24/07 ☒ Continuation ☐ Update

P5a. Drawings:

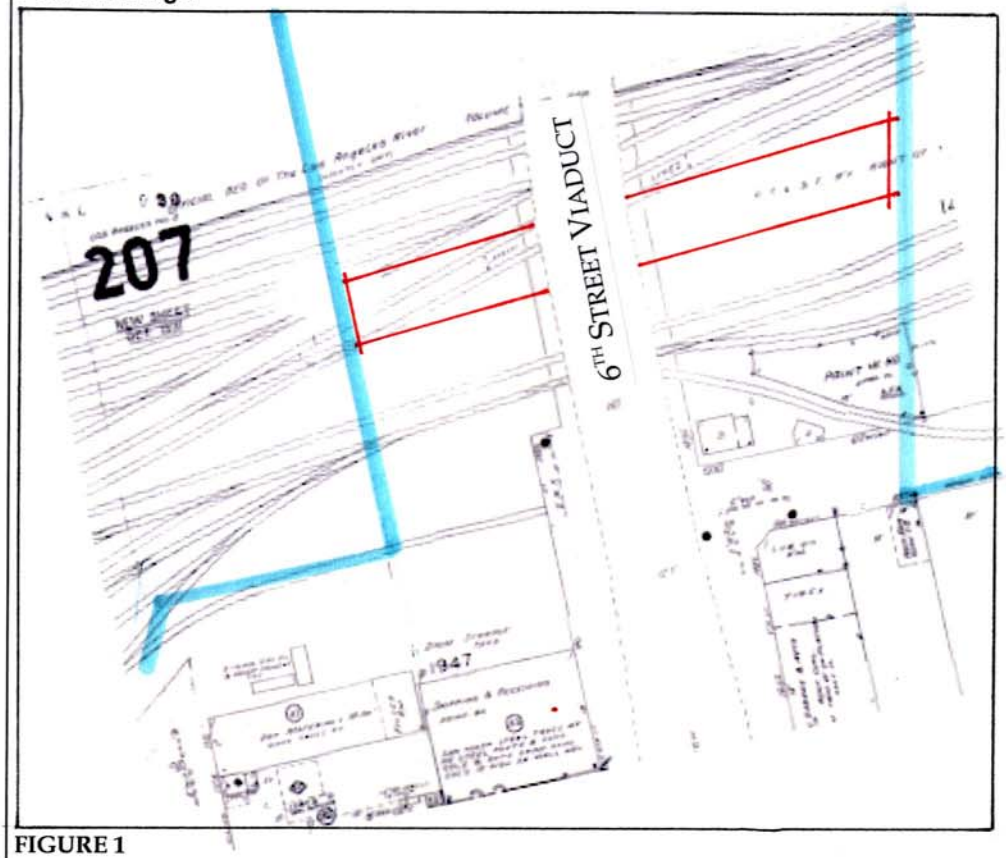
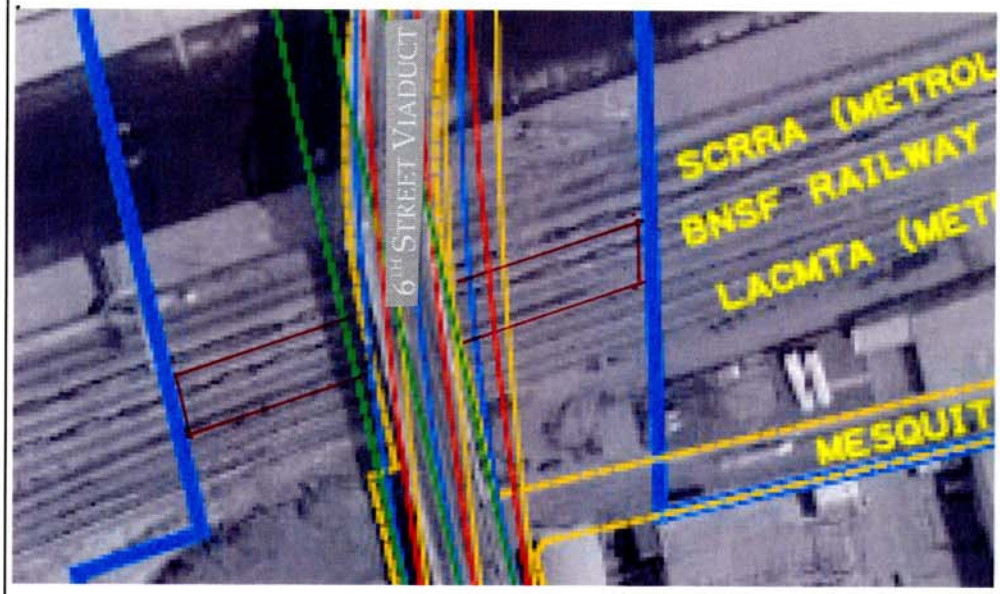


FIGURE 1



LEGEND
APE
subject property
no scale
North

FIGURE 2

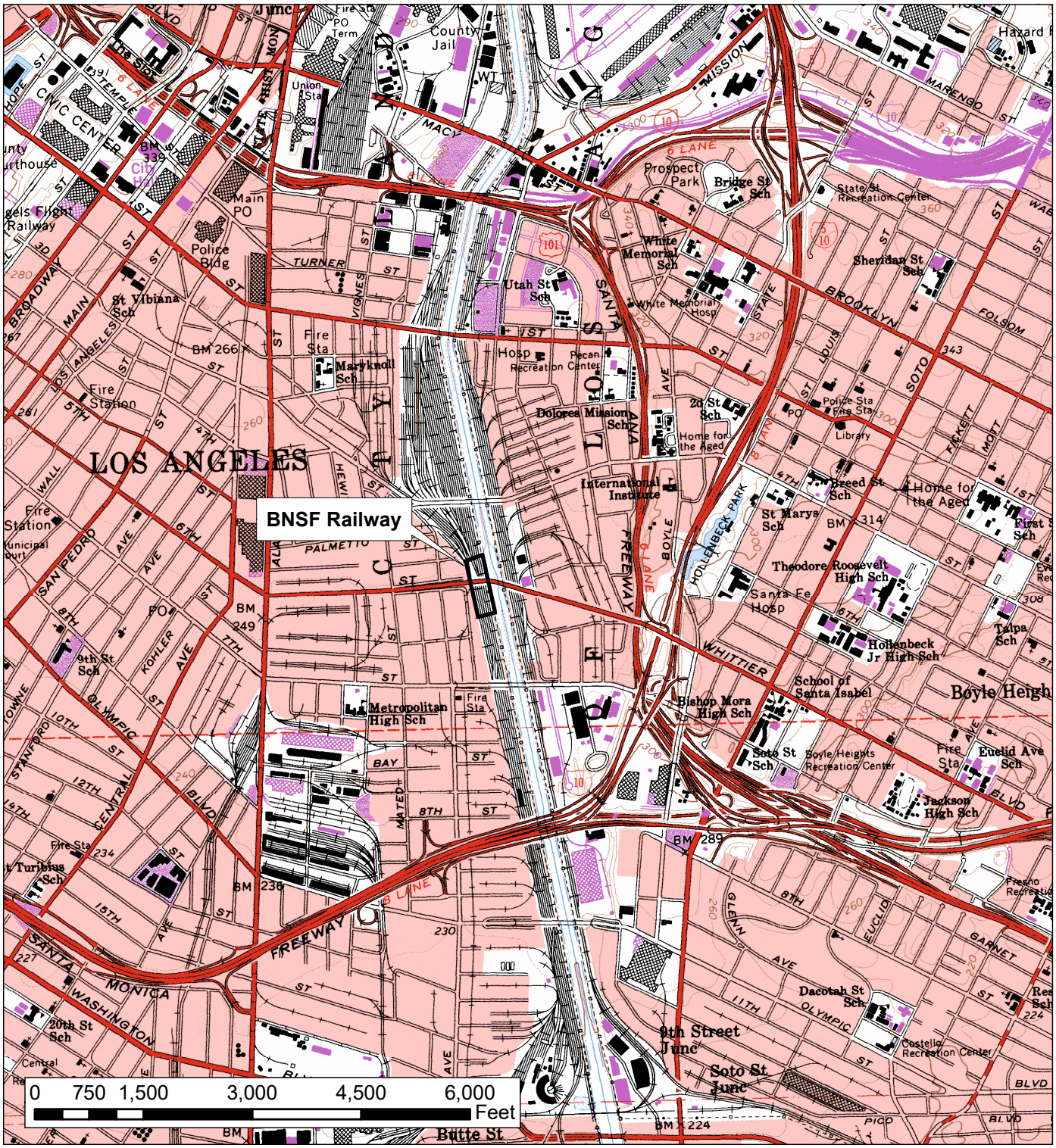
P5b. Description of Drawings: Figure 1- Excerpt from *Sanborn Fire Insurance Company Maps of Los Angeles*, 1906-1951. Volume 2, sheet 207. Figure 2- Excerpt from project Area of Potential Effects map, 2007.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railroad

***Map Name:** USGS Los Angeles 7.5 Minute Topographic Quadrangle ***Scale:** 1:24,000 ***Date of Map:** 1966 (PR 1981; 1994)



*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P 19- 186804 Update
HRI#
Trinomial

Page 1 of 1 *Resource Name or # : Burlington Northern & Santa Fe Railroad (WSE 95)

Historic Name: Atchison Topeka & Santa Fe Railroad

Pedestrian Evaluation

Length of track UTM:
Point A (north end of segment): Zone 11; 386420 m/e; 3768179 m/N; USGS Los Angeles Quad 7.5min, 1:24,000
Point B (south end of segment): Zone 11; 386575 m/e; 3767111 m/N; USGS Los Angeles Quad 7.5min, 1:24,000

Description:

The Burlington Northern & Santa Fe Railroad (BNSF) tracks are comprised of a set of 3 tracks, which run on a north-south axis on the west side of the Los Angeles River. The sets of tracks are set parallel to each other.

Under the proposed Westside Subway Extension Project, the existing BNSF tracks that are located immediately to the east of the proposed ground-level improvements to the Division 20 rail yard will not be physically affected by project activities.

Two prior reports have been issued regarding the length of track in the proposed Westside Subway Extension Project – Division 20 Maintenance Yard APE. Parsons. 2007. *Historical Resources Evaluation Report: 6th Street Viaduct Seismic Improvement Project*, and *FEIR/FEIS Los Angeles Union Station Run-Through Tracks Project*,2005, presented the findings that although the entire Burlington Northern & Santa Fe Railroad line may be eligible for listing in the National Register of Historic Places or California Register of Historical Resource as a linear historic resource, the specific segment located in the proposed project area is not eligible for listing due to the lack of integrity as to original materials and workmanship.

There are no proposed changes/alterations/physical effects to the BNSF tracks as part of the Westside Subway Extension Project that will alter their ability to convey its historic significance as a linear resource. The specific segment located within the proposed project APE does not appear to meet the criteria or levels of integrity necessary to be considered a significant historic resource.

Status Code: 6Z

Cogstone. 2011. *Westside Subway Extension Historic Properties Supplemental Survey Report.*

*Recorded by: Pam Daly, Cogstone Resource Management *Date: July 2011 ☐ Continuation ☒ Update

P1. Other Identifier: Atchison Topeka & Santa Fe Railroad

*P2 e. Other Locational Data: Assessor Identification Number (AIN): 5163-017-806, -900, -901; 5173-019-904, -802; 5173-020-912; 5173-021-811, -813, -903, -904; 5173-022-005-, 808, -901, -902, -903; 5173-023-805, -900, -901, -902

***P3a. Description:** Approximately 0.50-mile portion of the line in the city of Los Angles just south of the First Street Bridge north to Aliso Street/US 101 Freeway. Much of the track in the CEQA Project Area for the report cited in P11 has been replaced, realigned, and the general area altered with removal of buildings, construction of buildings, and old feeder lines removed.

***P3b. Resource Attributes:** (HP39) Railroad grade

***P8. Recorded by:** Allison Hill, AECOM, 300 S. Grand Ave., Suite 200, Los Angeles, CA 90071

P5a. Photograph:



Photograph 1. Metro/BNSF/ATSF line north of First Street Bridge, view north, December 6, 2016, SAM_4562.

***P11. Report Citation:** AECOM, "Cultural Resource Assessment for the Metro Red/Purple Line Core Capacity Improvements Project, Los Angeles, California." Prepared for Los Angeles Metropolitan Transportation Authority, 2016.

***B10. Significance:**

Cogstone Resource Management previously evaluated this segment of railroad in 2011 for the *Westside Subway Extension Historic Properties Supplemental Survey Report* and found that the specific segment of track was not eligible for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) as a linear historic resource because of lack of integrity to original materials and workmanship.

Evaluation

This form does not record or evaluate the entire BNSF/ATSF, instead, it records and evaluates only the approximately 0.50-mile portion of the line in the city of Los Angles just south of the First Street Bridge north to Aliso Street/US 101 Freeway located in the CEQA Project Area for the report cited in P11 of this form. After review of the previous recordation and current field check and research, the present evaluation agrees with the previous evaluation and concludes that the segment of BNSF/ATSF trackage in the CEQA Project Area is not eligible for listing in the NRHP or CRHR, and is not a historical resource for the purposes of CEQA.

Los Angles Historic-Cultural Monuments

This evaluation also include application of the City of Los Angeles, Office of Historic Resources (OHR), Department of City Planning, Chapter 9 Department of City Planning, Article 1 Cultural Heritage Commission, Sec. 22.171.7 of the Los Angeles Administrative Code. A Historic-Cultural Monument (Monument) is any site (including significant trees or other plant life located on the site), building or structure of particular historic or cultural significance to the City of Los Angeles, including historic structures or sites in which the broad cultural, economic or social history of the nation, State or community is reflected or exemplified; or which is identified with historic personages or with important events in the main currents of national, State or

local history; or which embodies the distinguishing characteristics of an architectural type specimen, inherently valuable for a study of a period, style or method of construction; or a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

The segment of the BNSF/ATSF, does not appear to meet the criteria for listing as a LACHM. This segment of railroad does not appear to have historic significance, nor reflect or exemplify and broad cultural, political, economic, or social history of the nation, state, or community. The segment of the BNSF/ATSF is not identified with historic personages or with important events in the main currents of national, state, or local history. This segment of railroad was used by various businesses throughout the decades, and was used to transport freight goods through the Los Angeles area. This segment of BNSF/ATSF does not embody the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction and is not a notable work of a master builder, designer, or architect whose individual genius influenced his or her age. This segment of railroad has been modified over time with additional trackage, the addition of the portal in the 1980s, modern buildings added to the segment, and other changes that have altered the segment of track under study, from its period of original development.

***B14. Evaluator:** Chandra Miller, AECOM ***Date of Evaluation:** December 2016

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 19-186804 (Update)
HRI #
Trinomial
NRHP Status Code: 6Y, 6Z
Other Listings
Review Code ____ Reviewer ____ Date ____

***Resource Name or #:** Burlington Northern Santa Fe Railway **Caltrans Map Reference No.:** 28
P1. Other Identifier: BNSF, formerly Atchison, Topeka and Santa Fe (ATSF) Railway (Segment only)
***P2. Location:** ____ **Not for Publication** X **Unrestricted**
***a. County** Los Angeles **County/Route/Postmile:**
***b. USGS 7.5' Quad:** Whittier Quad **Date** 1965, rev. 1981 **T** ____ **;R** ____ **of** ____ **of Sec** ____ ; ____ **B.M.**
c. Address NA **City** Los Nietos **Zip**
d. UTM:: **Zone** 11 , 3396532 **mE/** 11808419 **mN**
***e. Other Locational Data** (APN #, etc.)
***P3a. Description:** (Briefly describe resource below)

This update form is for one segment of the Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe or ATSF) Railway, specifically a 336-foot long segment located under Interstate 605. The segment consists of three parallel tracks on an east-west axis, south of River Road in the Los Nietos vicinity. The three lines consist of tracks, wood ties, and ballast; there are two metal sheds located on the north side of the northern track, as well as at least two signals, to the east of the overhead highway span (See continuation sheet).

***P3b. Resource Attibutes:** HP39. Other
****P4. Resources Present:** ___Building x Structure ___Object ___Site ___District ___Elements of District ___Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: Looking northwest from Pioneer Blvd (ICF 3/26/2018)
***P6. Date Constructed/Age:** 1880s (CRM Tech, 2002)
x Historic ___Prehistoric ___Both
***P7. Owner and Address:**
BNSF Railway
2650 Lou Menk Drive
Fort Worth, TX

***P8. Recorded by:**
Jessica B. Feldman
ICF
555 W. Fifth Street
Suite 3100
Los Angeles, CA 90013

***P9. Date Recorded:** 3/26/2018
***P10. Type of Survey:** ___Intensive ___Reconnaissance X Other
Describe: Section 106 Compliance

***P11. Report Citation:** HRER for the I-605 Corridor Improvement Project PA/ ED, 2019
***Attachments:** ___NONE ___Map Sheet x Continuation Sheet ___Building, Structure and Object Record ___Linear Resource Record ___Archaeological Record ___District Record ___Milling Station Record

"The ATSF Railway appears to meet Criterion A for the National Register of Historic Places (NRHP) and Criterion 1 for the California Register of Historical Resources (CRHR) because it is closely associated with an important event in 19th-century California history, namely the coming of a second transcontinental railroad. This event marked the beginning of the end of the Southern Pacific Railway Company's transportation monopoly and contributed directly to the southern California land boom of the 1880s. The rail line is also associated with the emergence of southern California as a favored tourist destination (sic) in the last 19th and early 20th centuries." (Tang et al. 2008.)

This segment was part of the extension of the original ATSF main line from Los Angeles to Orange and on to San Diego. Previous evaluation of the railroad in 2008 found that the physical components, such as tracks, ballast, and signal system, have been periodically upgraded over the past century, as a result of routine maintenance or system improvements. Under Criterion A of the NRHP, the integrity of design, materials, and workmanship is not as important as the integrity of location, setting, feeling, and association to convey the significance of the resource, within the period of significance. Previous documentation and evaluation of this segment of the BNSF established the period of significance as the 1880s—when the majority of the railroad was constructed by a subsidiary of the original ATSF.

Because the tracks are part of an active railroad, survey of the segment was limited to public right of way, which occurred in March 2018. Through review of historic aerials and United States Geological Survey maps, it can be established that while the location and association of this railroad segment appear to remain intact, the segment has lost integrity of setting and feeling. When originally constructed through this part of Los Angeles County, the surrounding countryside was primarily unsettled, and surrounded by cultivated and fallow lands. By the 1950s, housing developments were beginning to pop up along both sides of the San Gabriel River; however, the construction of Interstate 605 and the extension and widening of Pioneer Boulevard to the east substantially changed the surrounding landscape, which included the growth of a commercial area on the east side of the freeway. As a result, the original character of the setting no longer resembles a rural, agricultural late 19th century landscape. Furthermore, the alteration of physical features in the immediate vicinity, in additional to the intrusion of modern railroad equipment, has diminished the integrity of feeling. Previous evaluations of other segments of this railroad (see references below) have indicated that the entire railroad line could be eligible for the NRHP and/or CRHR, as a whole, under this criterion; however, this individual segment lacks the integrity within the historic context to be eligible under NRHP Criterion A or CRHR Criterion 1.

Under NRHP Criterion D or CRHR Criterion 4, the railroad segment is not a significant or likely source of important information regarding history or prehistory. It is unlikely to yield any important data regarding original engineering or architectural designs or techniques that would help us understand the construction practices of the day. Therefore, this segment of the UPRR is not eligible for individual listing on the NRHP/CRHR under Criterion D/4.

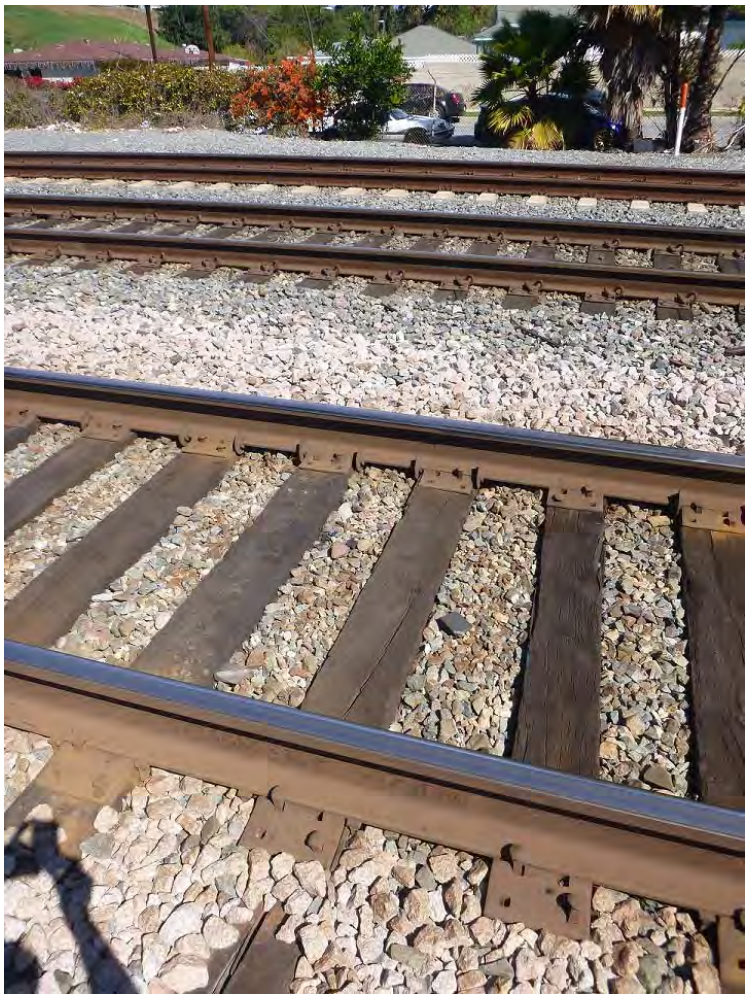
Following the review of previous evaluations, additional research, and survey of the segment, ICF concurs with the finding that although the portions of the UPRR alignment could be eligible for the NRHP or the CRHR, the subject segment does not contribute to the larger property and lacks significance for eligibility independently. The segment of the UPRR is not a historic property for the purposes of Section 106 of the National Historic Preservation Act and is not a historical resource for the purposes of the California Environmental Quality Act. The property was not evaluated for local designation.

References:

Drury, George. *The Historical Guide to North American Railroads*. Kalmbach Books: Milwaukee, WI. 1985.

Cooley, David J. *California Railroad Maps, Union Pacific/BNSF Railway*. Sonrisa Publications: Auburn, WA. 2005.

Tang, Tom "Bai" and Daniel Ballester. *Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe Railway).* California Department of Parks and Recreation Primary Record, Building, Structure and Object Record, et al. 2002 and 2008.



View of three sets of tracks, looking north. (ICF, March 18, 2018.)



View looking east along Rivera Road north of the tracks. (ICF, March 18, 2018.)



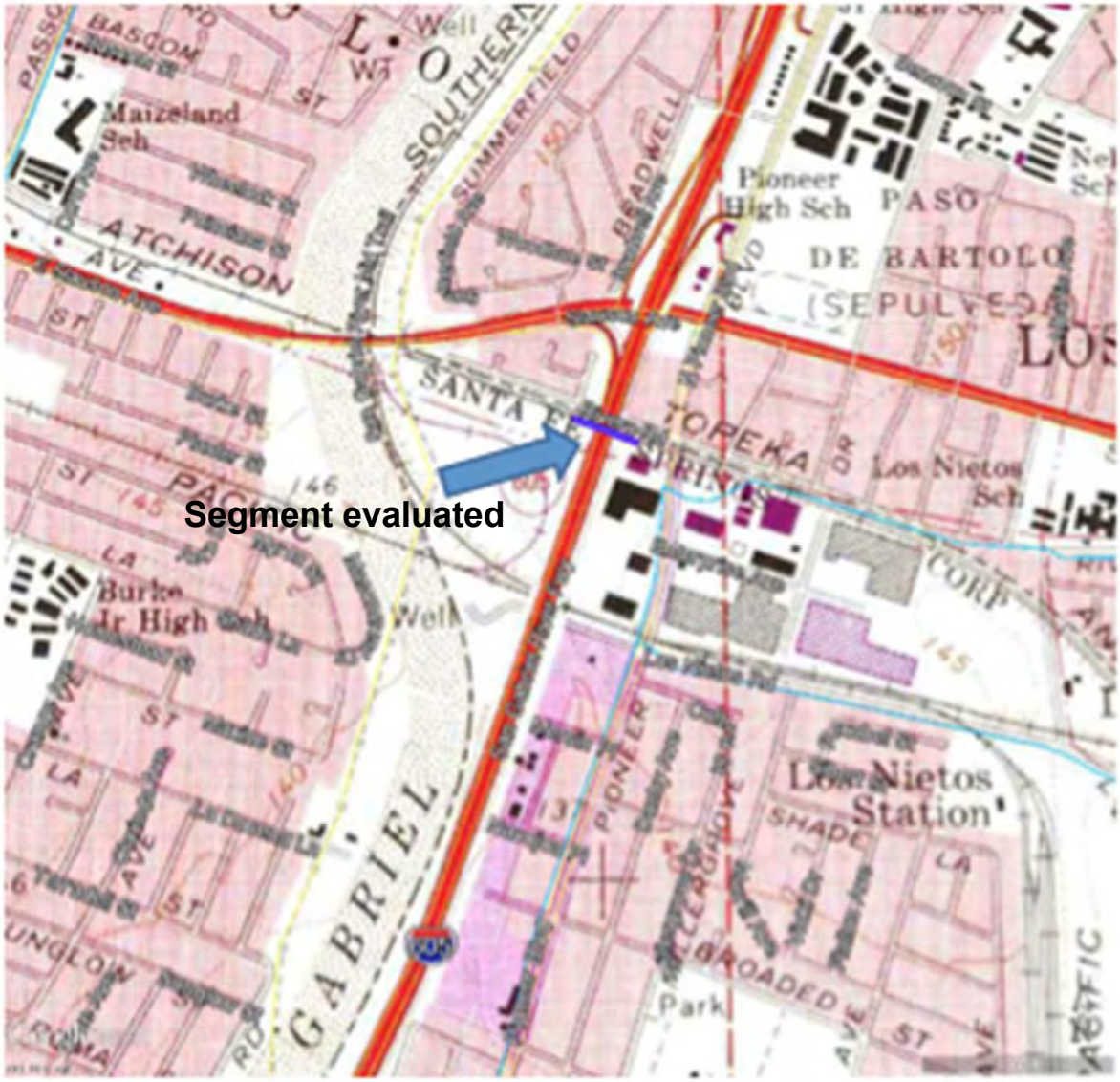
View looking west unnamed street south of the tracks. (ICF, March 18, 2018.)

Resource Identifier: Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe or ATSF) Railway (Segment only)

Caltrans Map Reference No.: 28

County/Route/Postmile:

Map Name: Whittier Quad *Scale: 1:24,000 *Date of Map: 1965, rev. 1981



P3a. Description:

An update to the DPR record for Burlington Northern Santa Fe Railway (former Atchison Topeka & Santa Fe Railway) (P-19-186804) was recorded by Jessica B. Feldman, ICF, on March 26, 2018. The update was prepared as part of the Historical Resources Evaluation Report (HRER) for the I-605 Corridor Improvement Project (CIP) in Los Angeles County and documented the segment of the linear resource within the Area of Potential Effects (APE) for the project. The recommended status code for the segment was 6Y, 6Z. The HRER was subsequently reviewed by the State Historic Preservation Officer (SHPO). In a letter dated July 11, 2019, SHPO did not concur with the determination of ineligibility for the segment and recommended that the Burlington Northern Santa Fe Railway (P-19-186804) as a whole should be assumed eligible for the National Register of Historic Places for purposes of the I-605 Corridor Improvement Project only.

B12. References:

GPA Consulting and ICF International. *Historical Resources Evaluation Report for the I-605 Corridor Improvement Project*. March 2019. Prepared for Metro and Caltrans.

Polanco, Julianne. *Julianne Polanco, Office of Historic Preservation to Kelly Ewing-Toledo, Caltrans: Determinations of Eligibility for the Proposed Interstate 605 Corridor Improvement Project, Los Angeles County, CA*. Letter dated July 11, 2019.

B14. Evaluator: Jenna Kachour, GPA Consulting. Date of evaluation: (Update) July 25, 2019.

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # (Pending)
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

 *Resource Name or # (Assigned by recorder) 3589-1H

P1. **Other Identifier:** Coyote Creek Channel, East Fork

***P2.** **Location:** ___ **Not for Publication** √ **Unrestricted** ***a. County** Los Angeles and Orange **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b.** **USGS 7.5' Quad** La Habra, Los Alamitos, and Whittier, Calif. **Date** 1981 **T**3S; **R**11W; **Sec** 26, 27, 33, and 34 ; S.B. **B.M.** (Los Coyotes land grant)
Elevation: Approximately 33-92 feet above mean sea level (including the depth of the channel)

c. **Address** N/A **City** Cerritos, Buena Park, and La Mirada **Zip**

d. **UTM:** (Give more than one for large and/or linear resources) **Zone** 11 ; A: 407738 **mE**/ 3749953 **mN;**
B: 404472 **mE**/ 3748044 **mN**
UTM Derivation: ___ USGS Quad __ GPS √ Google Earth

e. **Other Locational Data:** (e.g., parcel #, directions to resource, etc., as appropriate) Roughly along the Los Angeles-Orange county line

***P3a.** **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The site consists of a 2.7-mile segment of concrete-lined drainage channel containing East Fork of Coyote Creek, a major tributary of the San Gabriel River. The segment of the channel recorded extends in a generally northeast-southwest direction from the intersection with La Mirada Boulevard in (*continued on p. 5*)

***P3b.** **Resource Attributes:** (List attributes and codes) HP20: Canal/aqueduct

***P4.** **Resources Present:** ___ Building √ Structure ___ Object ___ Site ___ District ___ Element of District ___ Isolate ___ Other

P5a. **Photograph or Drawing** (Photograph required for buildings, structures, and objects.)



P5b. **Description of Photo:** Photo taken on February 6, 2020; view to the northeast near the confluence with North Fork

***P6.** **Date Constructed/Age of Sources:** √ Historic ___ Prehistoric ___ Both 1950s-1960s (see Item L7 for details)

***P7.** **Owner and Address:** Orange County Flood Control District, Santa Ana, and Los Angeles County Flood Control District, Sun Valley

***P8.** **Recorded by** (Name, affiliation, and address): Stephen O'Neil, UltraSystems Environmental, Inc., 16431 Scientific Way, Irvine, CA 92618

***P9.** **Date Recorded:** February 6, 2020

***P10.** **Survey Type:** (Describe) Intensive-level survey for Section 106 compliance

***P11.** **Report Citation:** (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang (2020): Historic Property Survey Report, OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park. Los Angeles and Orange Counties, California

***Attachments:** ___ None √ Location Map ___ Sketch Map √ Continuation Sheet ___ Building, Structure, and Object Record ___ Archaeological Record ___ District Record √ Linear Resource Record ___ Milling Station Record ___ Rock Art Record ___ Artifact Record ___ Photograph Record ___ Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary #
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) 3589-1H

L1. Historic and/or Common Name: Coyote Creek Channel, East Fork

L2a. Portion Described: ___ Entire Resource √ Segment ___ Point Observation **Designation:**

b. Location of Point or Segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map.) The segment recorded is located between the channel's intersection with La Mirada Boulevard and its confluence with North Fork of Coyote Creek, across the Cities of Buena Park, La Mirada, and Cerritos in Orange and Los Angeles Counties.

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/ sections as appropriate.) See Item P3a.

L4. Dimensions: (In feet for historic features and meters for pre-historic features)

a. Top Width 40-160 feet

b. Bottom Width 40-80 feet

c. Height or Depth 13-22 feet

d. Length of Segment 2.7 mile

L5. Associated Resources:

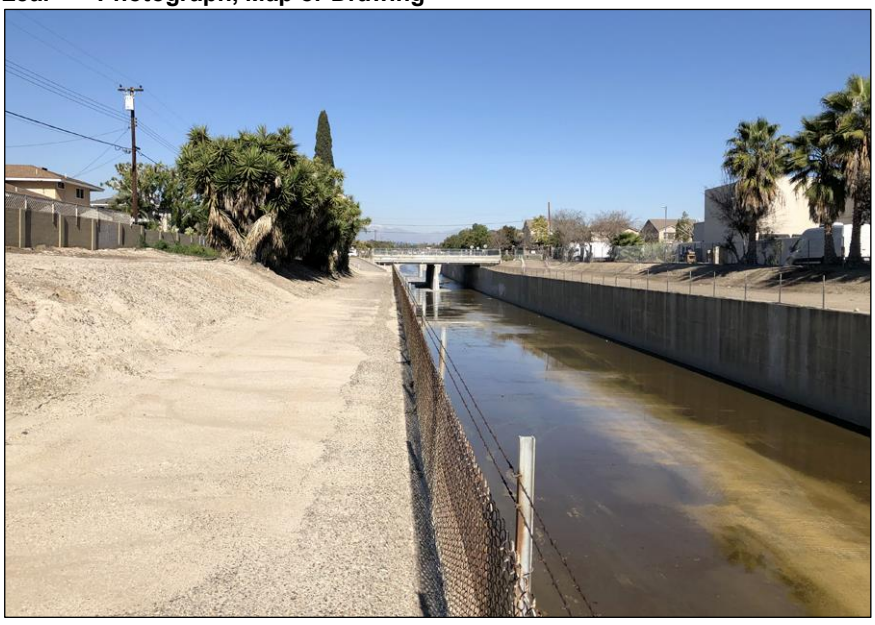
L4e. Sketch of Cross-Section (Include scale)
Facing:

See p. 4

L6. Setting (Describe natural features, landscape characteristics, slope, etc. as appropriate) The segment of the channel is in a fully urbanized setting. The northeastern end of the segment lies across residential neighborhoods in the City of Buena Park, with a neighborhood shopping center also present on adjacent land. The rest of the segment traverses across an industrial park with warehouses of various size along the course.

L7. Integrity Considerations: The concrete channel in its current configuration was completed by the U.S. Army Corps of Engineers in 1966-1967. Based on the original as-built plans, historic aerial photographs, and field observations, the channel has evidently remained largely unaltered since then. However, as a late-historic-period infrastructure feature of standard design and construction, the Coyote Creek (East Fork) Channel does not appear to meet any of the criteria for listing in the National Register of Historic Places or the California Register of Historical Resources.

L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing (View, scale, etc.) Photo taken on February 6, 2020; view to the northeast near the La Mirada Boulevard bridge

L9. Remarks:

L10. Form Prepared by: (Name, affiliation and address): Bai "Tom" Tang, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

L11. Date: October 28, 2020

*Required information

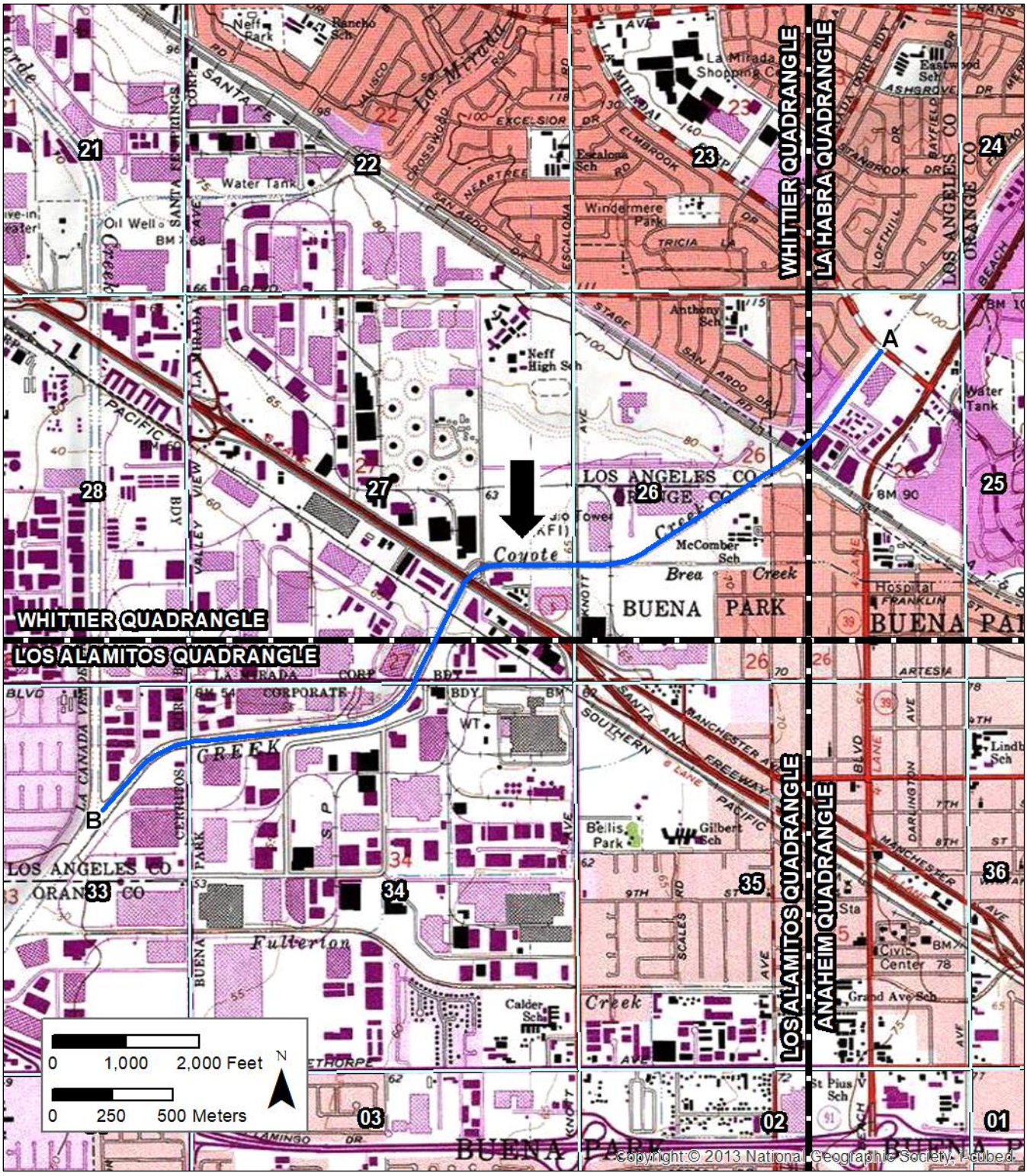
State of California - Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

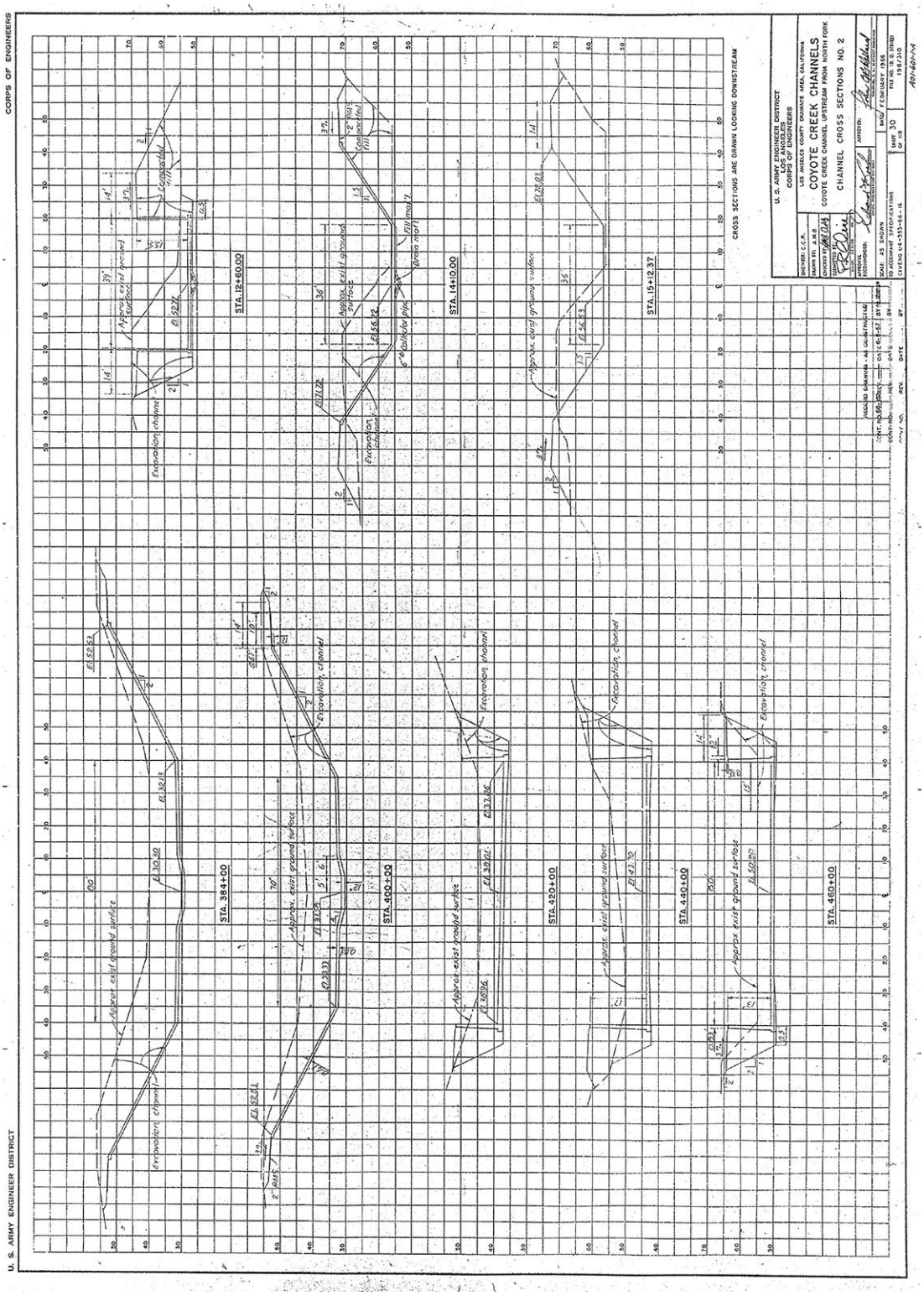
Primary #
HRI#
Trinomial

*Resource Name or # (Assigned by recorder) 3589-1H

*Map Name: Anaheim, La Habra, Los Alamitos, and Whittier, Calif.
*Scale: 1:24,000 *Date of Map: 1981



*Required information



Sketches of typical cross-section, 1966 (Courtesy of USACE, Los Angeles District)

***P3a. Description (continued):** the City of Buena Park, Orange County, to the confluence with North Fork of Coyote Creek in the City of Cerritos, Los Angeles County. The channel is alternatively trapezoidal or rectangular in cross-section along the course of this segment, ranging between 40 and 160 feet in total width, and is accompanied by paved or unpaved service roads atop the levees on one side or both sides.

Channelization of this segment of Coyote Creek occurred in different phases. The portion to the southwest of the confluence with Brea Creek was originally built in the 1940s, connected at that time to what is now the Brea Creek Channel, and the portion to the northeast was built between 1954 and 1963, at the same time as the North Fork Channel. In 1966-1967 the U.S. Army Corps of Engineers undertook a major upgrading of the Coyote Creek flood control system, and the concrete-lined channel along this segment of East Fork and its associated features, such as the concrete diversion walls within the channel, evidently resulted from this upgrading.

References:

NETR (Nationwide Environmental Title Research) Online
1952-2016 Aerial photographs taken in 1952-1954, 1963, 1972, 1980, 1994, 2002-2005, 2009, 2010, 2012, 2014, and 2016. http://www.historicaerials.com.

USACE (United States Army Corps of Engineers)
1966-1967 Los Angeles Drainage Area, Coyote Creek Channels: Coyote Creek Channel Upstream from North Fork (as-built plans). Digital copies provided by U.S. Army Corps of Engineers, Los Angeles District.
2017 Periodic Inspection Report No. 2, Generalized Executive Summary: Coyote Creek 3 Levee System, Los Angeles County and Orange County, California (NLD System ID #3805010025). https://www.spl.usace.army.mil/Portals/17/docs/LeveeSafetyProgram/Coyote_Creek_3_Levee_System_PI_Report_No_2_ES_M_20180319.pdf.

USGS (United States Geological Survey, U.S. Department of the Interior)
1935 Map: Los Alamitos, Calif. (1:31,680); surveyed in 1932.
1942 Map: Downey, Calif. (15', 1:62,500); aerial photographs taken in 1941.
1945 Map: Artesia, Calif. (6', 1:24,000); 1923 edition revised in 1933 and 1945.

ATTACHMENT E
NATIVE AMERICAN CONSULTATION*

OC LOOP SEGMENTS O, P, AND Q COYOTE CREEK BIKEWAY PROJECT
ORANGE COUNTY PUBLIC WORKS, ORANGE COUNTY, CALIFORNIA

Orange County Department of Public Works
Orange County, California

Federal Project No. ATPSB1L 5955(112)
Funding Source: Federal State Transportation Implementation Program
Local Agency: Orange County Department of Public Works (TO No. PW13667-051)

* Five local Native American representatives were contacted; a sample letter is presented in this appendix.

UltraSystems
environmental•management•planning

January 28, 2020

Government Program Analyst
Native American Heritage Commission
1550 Harbor Blvd., Suite 100
West Sacramento, California 95691

Subject: Cultural Resources Study, Orange County Loop Segments O, P, and Q Project, in the Cities of Cerritos, La Palma, Buena Park and La Mirada, Orange County, California. UltraSystems Environmental Project No. 7034.

Dear NAHC Staff,

UltraSystems Environmental, Inc. (UEI) has been contracted by GHD Inc. to conduct a cultural resources inventory in support of the Orange County Loop Segments O, P, and Q Project (Project). The Project consists of the proposed construction of 2.7 miles of OC Loop Segments O, P and Q for continuous off-road facility for bikes and pedestrians in the cities of Cerritos, La Palma, Buena Park and La Mirada, Orange County. I am requesting a Native American contact list of interested tribes, organizations and individuals in the general Project area, and a search of the Sacred Lands File for potential traditional cultural sites.

The proposed Project would include the construction of 2.7 miles of continuous off-road facility for bikes and pedestrians along the Los Coyotes Creek. The project begins in Segment O where the existing bikeway along Coyote Creek turns north along the North Fork of the channel and ends in Segment Q at La Mirada Blvd. Several architectural elements will be added including several pedestrian/bike bridge and pathways undercrossings at roads and railroad corridors.

The Project is located in the cities of Cerritos, La Palma, Buena Park and La Mirada, and is specifically located along the Los Coyotes Creek from the conjunction of the Los Coyotes Creek and the La Canada Verde Creek in the west to where the Los Coyotes Creek meets La Mirada Blvd in the east. The project can be found on the *Los Alamitos, Calif.*, USGS topographical quadrangle, R 11 W, T 3 S, in the NE ¼ of the NE ¼, the SE ¼ of the NE ¼, and the SW ¼ of the NE ¼ of Section 33; R 11 W, T 3 S, in the NW ¼ of the NW ¼, the NE ¼ of the NW ¼, and the NW ¼ of the NE ¼ of Section 34; R 11 W, T 3 S, in the SW ¼ of the SE ¼ of Section 27. The project can also be found of the *Whittier, Calif.*, USGS topographical quadrangle, R 11 W, T 3 S, in the NW ¼ of the SE ¼, the NE ¼ of the SE ¼, and the SW ¼ of the SE ¼ of Section 27; R 11 W, T 3 S, in the NW ¼ of the SW ¼, the NE ¼ of the SW ¼, and the SW ¼ of the NE ¼ of Section 26; as well as *La Habra, Calif.*, USGS topographical quadrangle, R 11 W, T 3 S, in the SW ¼ of the NE ¼, and the NE ¼ of the NE ¼ of Section 26. The Project site is located in a fully urbanized area with single family residences, commercial businesses in all directions. This is shown on the enclosed map and the Project area is depicted with a half-mile buffer zone.

If you require additional information or have any questions, please contact me.

Thank you for your help.

Sincerely,

Stephen O'Neil, M.A., RPA
Cultural Resources Manager
soneil@ultrasystems.com

Corporate Office – Orange County
16431 Scientific Way
Irvine, CA 92618-7443
Telephone: 949.788.4900, ext. 276
Facsimile: 949.788.4901
Website: www.ultrasystems.com

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Joseph Myers
Pomo

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

NATIVE AMERICAN HERITAGE COMMISSION

February 11, 2020

Stephen O'Neil
UltraSystems

Via Email to: soneil@ultrasystems.com

Re: Orange County Loop Segments O, P, and Q Project, Orange County

Dear Mr. O'Neil:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: steven.quinn@nahc.ca.gov.

Sincerely,

Steven Quinn
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Orange County
2/11/2020

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., Gabrielino
#231
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Orange County Loop Segments O, P, and Q Project, Orange County.

SUMMARY OF NATIVE AMERICAN TRIBAL INPUT AND FOLLOW-UP CONTACT

Name/Title/ Tribal Affiliation	Contact		Comment	Response to Comment
	Written	Telephone		
Andrew Salas, Chairperson Gabrieleno Band of Mission Indians – Kizh Nation	7/21/20	NA	Email from the Gabrieleno Band of Mission Indians - Kizh Nation's Administration Specialist was received by Caltrans on July 30, 2020, with a message expressing interest in consulting on the project. Caltrans responded October 5, 2020 requesting a meeting date. There was no response as of October 26, 2020 and Caltrans concluded the consultation.	
Anthony Morales, Chairperson Gabrieleno/Tongva San Gabriel Band of Mission Indians	7/21/20	10/6/2020	In the phone call to the Chairperson made on October 6, 2020 at 1:15pm, the line was not answered and a message was left on the answering machine. No response to date.	
Sandonne Goad, Chairperson Gabrielino/Tongva Nation	7/21/20	10/6/2020	In the phone call to the Chairperson made on October 6, 2020 at 1:00pm, the line was not answered and a message was left on the answering machine. No response to date.	
Robert Dorame, Chairman Gabrielino Tongva Indians of California Tribal Council	7/21/20	10/6/2020	In the phone call to the Chairman made on October 6, 2020 at 1:10pm, the line was not answered and a message was left on the answering machine. No response to date.	
Charles Alvarez, Councilmember Gabrielino-Tongva Tribe	7/21/20	10/6/2020	In the phone call to the Councilmember made on October 6, 2020 at 1:05pm, the line was not answered and a message was left on the answering machine. No response to date.	

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
1750 EAST 4TH STREET, SUITE 100
SANTA ANA, CA 92705
PHONE (657) 328-6000
FAX (657) 328-6522
TTY 711
www.dot.ca.gov/caltrans-near-me/district12

Making Conservation a California Way of Life.

July 21, 2020

Andrew Salas Chairperson
Gabrieleno Band of Mission Indians - Kizh Nation
P.O. Box 393
Covina, CA, 91723

Dear Honorable Chairperson Salas:

The California Department of Transportation (Caltrans) in cooperation with the Federal Highway Administration (FHWA) and the Orange County Department of Public Works (OCPW), proposes to construct an asphalt bike path along the west bank of the Coyote Creek Channel starting at the confluence of the north and east forks of the channel at the south end in the city of Cerritos, north for 2.7 miles connecting to another portion of the Coyote Creek Bikeway at La Mirada Boulevard/Malvern Avenue in the cities of Buena Park and La Mirada. This undertaking will be conducted in a work area approximately 250 feet wide (east/west) and 2.7 miles long (north/south), closing a gap in the 66-mile regional bikeway corridor called the OC Loop Bikeway that is located, in part, along the length of the Coyote Creek flood control channel upstream and downstream of the Santa Ana Freeway (I-5 Freeway). This gap is designated as Segments O, P, and Q (Federal Project No. ATPL-5955(112)). The undertaking is located in the cities of Cerritos, Buena Park, and La Mirada in Orange County and Los Angeles County within Caltrans District 12.

The undertaking entails the construction of an asphalt bike path 12 to 16 feet wide along the existing maintenance road on the bank of the Coyote Creek flood control channel. Fencing, such as a five-foot-high chain link fence or four-foot tall cable fence may be installed on one or both sides; the fencing may be installed along the entire 2.7 miles of new bike trail if necessary. The bike path will be placed primarily on the west bank until, upstream from Stage Road, it will move to the east bank of Coyote Creek for the remaining 560 feet to La Mirada Boulevard. Where the bike path is at grade, the path would be asphalt and be 14 to 16 feet wide inclusive of the two-foot shoulders on each side, wherever a

fence is added for safety. Where the bike path would travel beneath grade (below bridges), the bike path surface would be concrete and 10 to 14 feet wide with no shoulders. At street and railroad bridges, the bike path will generally be below grade under the bridges. There will be at-grade crossings at Knott Avenue, the Burlington Northern Santa Fe Railway, and at Stage Road via the fully signalized intersection located at McComber Road approximately 500 feet west of the channel. At the Union Pacific Railroad a concrete box underground tunnel will be constructed. Several dirt ramps will be built at road crossings to allow access to and from streets. There will be bike/pedestrian bridges crossing the channel from bank to bank at the north and south ends of the project. Only standard and minimal bike signage and location maps conforming to OC Parks signage codes and criteria are required.

Construction activities will be confined within the existing rights-of-way, and easement into the private lands in Segment Q to the north at La Mirada Boulevard (APN 066-601-64, 066-561-09 and 066-584-04) and to the south at Trojan Way (APN 700-101-4034 and 700-101-5017) (see HPSR Attachment A, Map 3), staging/storage area, temporary access, or borrow/disposal site will be required. The undertaking will not realign or widen any roadways. There will be tree removals along La Mirada Boulevard. The undertaking will not cause automobile traffic to be closer in proximity to nearby properties or increase automobile traffic volume.

The vertical extent of ground disturbance during the undertaking is not expected to exceed four feet in depth. There will be above-ground utility infrastructure removals, in the form of abandoned fuel lines that cross the Channel, would be cut, capped and removed, and a power pole in the northwest quadrant at South Firestone Boulevard would require relocating.

The Project is specifically located on the *Los Alamitos, Calif.*, USGS topographical quadrangle, R 11 W, T 3 S, in the NE ¼ of the NE ¼, the SE ¼ of the NE ¼, and the SW ¼ of the NE ¼ of Section 33; R 11 W, T 3 S, in the NW ¼ of the NW ¼, the NE ¼ of the NW ¼, and the NW ¼ of the NE ¼ of Section 34; R 11 W, T 3 S, in the SW ¼ of the SE ¼ of Section 27. The project can also be found of the *Whittier, Calif.*, USGS topographical quadrangle, R 11 W, T 3 S, in the NW ¼ of the SE ¼, the NE ¼ of the SE ¼, and the SW ¼ of the SE ¼ of Section 27; R 11 W, T 3 S, in the NW ¼ of the SW ¼, the NE ¼ of the SW ¼, and the SW ¼ of the NE ¼ of Section 26; as well as *La Habra, Calif.*, USGS topographical quadrangle, R 11 W, T 3 S, in

the SW ¼ of the NE ¼, and the NE ¼ of the NE ¼ of Section 26. This is shown on the attached map and the Project area is depicted with a one-half mile buffer zone.

Maps 1 and 2 (attached) provide details of the project location (Map 1) and the topographic map with half-mile buffer zone (Map 2).

Please consider this letter and preliminary project information as the initiation of Section 106 consultation pursuant to the National Historic Preservation Act.

Cultural resources investigations have previously occurred for this project, conducted largely by the consultant UltraSystems Environmental Inc. (cultural resources consultants to GHD [the contractor] and OCPW), for compliance with Section I 06 of the National Historic Preservation Act (Section 106). As part of these cultural resource investigations, a records search was conducted at the South Central Coastal Information Center of the California Historical Resources Information System, located at California State University, Fullerton. A pedestrian survey of the APE was also conducted. Per Section I 06, project notification letters were sent to Native Americans identified by the Native American Heritage Commission.

No archaeological resources were identified in the APE through archival research, the field survey, or Native American consultation. The majority of the Direct APE is in Los Angeles County Flood Control District right-of- way along the Coyote Creek Channel. The Direct APE along the OC Loop Bikeway also includes a small amount of acreage immediately adjacent to the channel right-of-way, including sidewalk along La Mirada Boulevard and Trojan Way.

The survey showed that all areas in the Direct APE exhibited high levels of disturbance from channelizing Coyote Creek and nearby road and railroad bridge construction. Disturbance included

bulldozed local sediment mixed with gravel, asphalt, and other debris, as well as artificial fill. The entire Direct APE has been substantially altered from previous construction activities.

UltraSystems requested that a Sacred Lands File (SLF) Search be performed by the Native American Heritage Commission (NAHC). The results of the SLF search were negative for the immediate project vicinity.

On behalf of FHWA, Caltrans is interested in receiving input from your community regarding any concerns related to the proposed project. If you know of any cultural resources that may be of religious or cultural significance to our community, or if you have any questions or concerns about the project, please contact Jonathan Wright, District l2 Archaeologist, via email at jonathan.wright@dot.ca.gov or by phone at (657) 328-6167.



Sincerely,

CHARLES BAKER
Environmental Planning Branch Chief
District 12

Enclosure: Maps 1 and 2

From: Gabrieleno Administration <admin@gabrielenoindians.org>
Sent: Thursday, July 30, 2020 2:07 PM
To: Wright, Jonathan M@DOT <jonathan.wright@dot.ca.gov>
Subject: California Department of Transportation (Caltrans) Construct an asphalt bike path along the west bank of the Coyote Creek Channel

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello Jonathan Wright

Thank you for your letter dated July 21,2020. Our Tribal government would like to consult with you regarding the above project.

Thank you

Sincerely,

Brandy Salas

Admin Specialist
Gabrieleno Band of Mission Indians - Kizh Nation
PO Box 393
Covina, CA 91723
Office: 844-390-0787
website: www.gabrielenoindians.org

The region where Gabrieleño culture thrived for more than eight centuries encompassed most of Los Angeles County, more than half of Orange County and portions of Riverside and San Bernardino counties. It was the labor of the Gabrieleño who built the missions, ranchos and the pueblos of Los Angeles. They were trained in the trades, and they did the construction and maintenance, as well as the farming and managing of herds of livestock. "The Gabrieleño are the ones who did all this work, and they really are the foundation of the early economy of the Los Angeles area " . "That's a contribution that Los Angeles has not recognized--the fact that in its early decades, without the Gabrieleño, the community simply would not have survived."

Project Number:	7034
Project Name:	OC Loop Segments O, P, And Q Coyote Creek Bikeway Project
Date:	October 6, 2020
Time:	1:00 pm
Name:	Sandonne Goad
Title:	Chairperson
Tribal Affiliation:	Gabrielino/Tongva Nation
Telephone Number:	(951) 807-0479
Description of Telephone Conversation:	No answer. Left a message. No response to date.
Completed by:	Megan B. Doukakis, Archaeological Technician

Project Number:	7034
Project Name:	OC Loop Segments O, P, And Q Coyote Creek Bikeway Project
Date:	October 6, 2020
Time:	1:05 pm
Name:	Charles Alvarez
Title:	
Tribal Affiliation:	Gabrielino-Tongva Tribe
Telephone Number:	(310) 403-6048
Description of Telephone Conversation:	No answer. Left a message. No response to date.
Completed by:	Megan B. Doukakis, Archaeological Technician

Project Number:	7034
Project Name:	OC Loop Segments O, P, And Q Coyote Creek Bikeway Project
Date:	October 6, 2020
Time:	1:10 pm
Name:	Robert Dorame
Title:	Chairperson
Tribal Affiliation:	Gabrielino Tongva Indians of California Tribal Council
Telephone Number:	(562) 761-6417
Description of Telephone Conversation:	No answer. The voicemail was not set up so no message was left. No response to date.
Completed by:	Megan B. Doukakis, Archaeological Technician

Project Number:	7034
Project Name:	OC Loop Segments O, P, And Q Coyote Creek Bikeway Project
Date:	October 6, 2020
Time:	1:15 pm
Name:	Anthony Morales
Title:	Chairperson
Tribal Affiliation:	Gabrieleno/Tongva San Gabriel Band of Mission Indians
Telephone Number:	(626) 483-3564
Description of Telephone Conversation:	No answer. Left a message. No response to date.
Completed by:	Megan B. Doukakis, Archaeological Technician

ATTACHMENT F
CORRESPONDENCES WITH
LOCAL COMMUNITY REPRESENTATIVES*

OC LOOP SEGMENTS O, P, AND Q
COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works

* Three local government agencies and three local historical societies were contacted during this study; a sample e-mail is included in the appendix.

CONTACT LOG, LOCAL GOVERNMENTS

Organization	Contact		Comments
	Written	Telephone	
Brady Woods, Supervisor of Planning Division Community Development Department City of Buena Park 6650 Beach Boulevard Buena Park, CA 90622-5009 (714) 562-3620	4/21/2020	4/21/2020, 2:46 pm 7/13/2020, 9:15 am 10/15/2020, 1:15pm (Left voice messages)	No response to date.
Mike O'Grady, Environmental Services Manager Community Development Department City of Cerritos 18125 Bloomfield Avenue Cerritos, CA 92073 (562) 916-1201 mogrady@cerritos.us	4/21/2020	4/21/2020, 1:15 pm 7/13/2020, 9:20 am 10/15/2020, 1:50 pm (Left voice messages)	No response to date.
Gabriel Bautista, Director Community Development Department City of La Mirada 13700 La Mirada Boulevard La Mirada, CA 90638 (562) 943-0131	4/21/2020	4/21/2020, 2:22 pm 7/13/2020, 9:45 am (Left voice messages) 10/15/2020, 2:00 pm (See right column)	When reached by telephone on 10/15/2020, Mr. Bautista stated that the City had no objections to the project but that he would review the project information and respond further by e-mail if he had any additional comments. No correspondence received to date.

CONTACT LOG: LOCAL HISTORICAL ORGANIZATIONS

Organization	Contact		Comments
	Written	Telephone	
Orange County Historical Society/ Heritage Museum of Orange County 3101 W. Harvard Street Santa Ana, CA 92704 (714) 540-0404 ext. 226 info@orangecountyhistory.org	4/21/2020	4/21/20, 11:43 pm 7/13/2020, 9:55 am 10/15/2020, 2:05pm (Left voice messages)	On 10/15/2020, Executive Director Jamie Hiber replied by e-mail and stated that she would discuss with society members and respond further later (see attached). No further correspondence received to date.
Buena Park Historical Society 6631 Beach Boulevard Buena Park, CA 90621 (714) 562-3570 info@historicalsociety.org	4/21/2020	4/21/20, 11:53 pm 7/13/2020, 10:05 am 10/15/2020, 1:15pm (Left voice messages)	No response to date.
La Mirada Community Foundation/ Discover La Mirada 13700 La Mirada Boulevard. (562) 943-0131 info@discoverlamirada.com lrevilla@cityoflamirada.org	4/21/2020	4/21/20, 12:05 pm (See right column) 7/13/2020, 10:15 am 10/15/2020, 1:05pm (Left voice messages)	On 4/21/2020 Latecia Ravilla, Liaison for the Foundation, requested the project information to be re-sent to her by e-mail, which was done immediately after the telephone call. No further response received.

From: Terri <tjacquemain@crmtech.us>
Sent: Tuesday, April 21, 2020 12:48 PM
To: 'info@orangecountyhistory.org'
Subject: Local Consultation for Coyote Creek OC Loop Bicycle Project

Hi there Orange County Historical Society,

I am writing to inform you of the Coyote Creek Class I Bikeway Segments O, P, and Q Project, a proposed multi-purpose parkway/trail through the Cities of Cerritos, La Mirada, and Buena Park near the northwest Orange County/southwest Los Angeles County border (map attached). The 2.7-mile Class I Bikeway is a component of a 66-mile regional bikeway corridor called the OC Loop. Once completed, the project would close an existing bikeway gap and physically separate the bikeway from vehicular traffic. My inquiry is required as a part of the cultural resources component of the environmental studies for the project, as required by under Section 106 guidelines. Any comments you provide will be included in the report.

According to records on file at the South Central Coastal Information Center, four historical/ archaeological resources were previously recorded in or near the project footprint. All of them dated to the historic period (i.e., more than 50 years of age), and none were of Native American origin. Located in the Area of Potential Effects (APE) for the project were the Union Pacific Railroad and the Burlington Northern Santa Fe Railway. Located outside but in close proximity to the project boundaries were a refuse deposit associated with the late-1800s Northam railway station and the circa 1931 KFI broadcast station. The APE will cross the railroads alignments, but will materially change neither sites, and neither the radio station nor the railway station sites will be directly impacted by the bikeway project.

Thank you for any time and effort you may have to devote to my inquiry. Any comments or concerns you may have can be sent to me using the information provided below.

Sincerely,

Terri Jacquemain, M.A.
Historian/Architectural Historian
CRM TECH, 1016 E. Cooley Drive, Suite A/B
Colton, CA 92324, (909) 824-6400, tjacquemain@crmtech.us

Subject: RE: Coyote CreekBicycle Project, OC Loop
Date: 2020/10/16 3:14 pm
From: Jamie Hiber <JHiber@heritagemuseumoc.org>
To: "tjacquemain@crmtech.us" <tjacquemain@crmtech.us>

Hi Terri!

So glad I was able to connect with you! I'll pass this along right now and hopefully we can get a response over your way ASAP! ☺

With care,

Jamie
Jamie Hiber
Executive Director
Heritage Museum of Orange County
3101 W Harvard St
Santa Ana, CA 92704
714 540-0404 ext 224

ATTACHMENT B, PART 2 OF 5

CORRESPONDENCE REGARDING ASSUMPTION OF ELIGIBILITY

SITES 19-186110/30-176630 and 19-186804/30-176663

(January 21, 2021)

From: Price, David@DOT
To: Wright, Jonathan M@DOT
Subject: RE: Assumption of Eligibility Request for OC Loop 5955(112)
Date: Thursday, January 21, 2021 4:20:00 PM

Thank you, Jon.

CSO approves the assumptions of eligibility for 19-186110/30-176630 and 19-186804/30-176663 under Criterion A due to large resource size, pursuant to Stipulation VIII.C.4 of the Section 106 PA. Please keep a copy of this email for your records.

Best,

David Price
Section 106 Coordination Branch Chief
Cultural Studies Office
Caltrans Division of Environmental Analysis
1120 N Street, MS 27, Sacramento, CA 95814
(916) 879-6758

From: Wright, Jonathan M@DOT <jonathan.wright@dot.ca.gov>
Sent: Thursday, January 21, 2021 10:04 AM
To: Price, David@DOT <David.Price@dot.ca.gov>
Subject: Assumption of Eligibility Request for OC Loop 5955(112)

Good Morning David,

The District is requesting approval for an assumption of eligibility on 2 properties identified within the APE for project 5955(112) under Stipulation VIII.C.4 of the programmatic agreement due to the large size of the resources.

The properties identified are:

• 19-186110/30-176630 Former Southern Pacific (now Union Pacific) Railroad (see Attachment A, Map 3:6)

• 19-186804/30-176663 Former Atchison, Topeka and Santa Fe (now Burlington Northern Santa Fe) Railway

Both properties are being considered eligible under Criterion A only. If you have any questions, please let me know.

Thank you,

Jon

ATTACHMENT B, PART 3 OF 5

ERRATA LETTER

(January 22, 2021)

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS,
1120 N STREET, MS 27
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 879-6758
FAX (916) 653-7757
TTY (916) 653-4086

Making Conservation
A California Way of Life

January 22, 2021

Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

Re: Finding of No Adverse Effect for the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, in Orange County, California,

Dear Ms. Polanco:

The California Department of Transportation (Caltrans) is continuing consultation with the State Historic Preservation Officer (SHPO) regarding the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, Orange County, California (Undertaking). This consultation is done in accordance with the First Amended January 2014 Section 106 *Programmatic Agreement among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation* (Section 106 PA).

Caltrans initially submitted the project for review on December 11, 2020. The submittal included a request for concurrence that segments of the linear resources listed below were ineligible for listing in the National Register, as well as notification of a No Historic Properties Affected finding upon that concurrence.

- *19-186110/30-176630 Former Southern Pacific (now Union Pacific) Railway*
- *19-186804/30-176663 Former Atchison, Topeka and Santa Fe (now Burlington Northern Santa Fe) Railway*

The Office of Historic Preservation responded that outside of certain rare circumstances, the SHPO prefers that resources are evaluated in their entirety, rather than in segments. The SHPO recommended that Caltrans assume the properties to be eligible for listing on the National Register and assess effects of the Undertaking.

Caltrans agrees with the SHPO's recommendation and is now continuing consultation regarding the effects from the Undertaking, pursuant to Stipulation X.B.2.a of the Section 106 PA. Caltrans has assumed the two properties to be eligible for listing in the

National Register under Criterion A due to large resource size, Pursuant to Stipulation VIII.C.4 of the Section 106 PA (see the attached Cultural Studies Office approval).

Caltrans has applied the criteria of adverse effect, as defined in 36 CFR 800.5(a)(1), and determined that the Undertaking will have no adverse effect to either property. The HRER provided in the initial correspondence demonstrates that there remains no integrity in the impacted segments of these resources. **Caltrans has thus determined that a Finding of No Adverse Effect is appropriate for the Undertaking and seeks the SHPO's concurrence with this finding.**

If you need any additional information, please do not hesitate to contact me or District 12 Archaeologist Jonathan Wright (phone: 657-328-6167 or e-mail: jonathan.wright@dot.ca.gov). Thank you for your assistance with this project.

Sincerely,



DAVID PRICE
Section 106 Coordinator
Caltrans Cultural Studies Office
Department of Environmental Analysis

cc. Jonathan Wright, Caltrans District 12

ATTACHMENT B, PART 4 OF 5

SHPO CONCURRENCE

(February 24, 2021)

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Armando Quintero, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

February 24, 2021

VIA EMAIL

In reply refer to: FHWA_2020_1211_001

David Price, Section 106 Coordinator
Cultural Studies Office
Division of Environmental Analysis
1120 N Street, PO Box 942873, MS-27
Sacramento, CA 94273-0001

Subject: Finding of Effect for the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, Orange County, California

Dear Mr. Price:

Caltrans is initiating consultation regarding the above project in accordance with the January 1, 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation, the California State Historic Preservation Officer (SHPO), and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA). As part of your documentation, Caltrans submitted a Historic Property Survey Report (HPSR), an Archaeological Survey Report, and a Historic Resources Evaluation Report for the proposed project. In addition, Caltrans submitted an Errata Letter on January 22, 2021 with changes to eligibility determinations and a no finding of effect for the undertaking.

The undertaking will constuct 2.7 miles of 10- to 16-foot-wide Class 1 bike path on the basis of existing service roads along the Coyote Creek (East Fork) Channel, within the Orange County and Los Angeles County Flood Control Districts right-of-way, to close a gap in the OC Loop, a 66-mile regional bikeway corridor. The new bike path will connect to previously completed OC Loop segments at the confluence between East Fork and North Fork of Coyote Creek in the City of Cerritos and at the intersection of the channel with La Mirada Boulevard in the City of Buena Park.

In the errata letter of January 22, 2021, Caltrans notified the SHPO pursuant to Stipulation X.B.2.a of the PA that Caltrans is assuming that the following two properties are eligible for the National Register of Historic Places under Criterion A:

- Former Southern Pacific Railway (now Union Pacific)
- Former Atchison, Topeka and Santa Fe Railway (not Burlington Northern Santa Fe)

Caltrans is unable to document these resources in their entirety due to large resource size.

Pursuant to 106 PA Stipulation X.B.1.a, Caltrans found that the project will have no adverse effects to historic properties.

Based on review of the submitted documentation, I have no objections to the above finding.

If you have any questions, please contact Natalie Lindquist at (916) 445-7014 with e-mail at natalie.lindquist@parks.ca.gov .

Sincerely,



Julianne Polanco
State Historic Preservation Officer

ATTACHMENT B, PART 5 OF 5

FIRST SUPPLEMENTAL HPSR

(October 4, 2021)

SUPPLEMENTAL HISTORIC PROPERTY SURVEY REPORT

1. UNDERTAKING DESCRIPTION AND LOCATION

District	*County*	*Federal Project. Number. (Prefix, Agency Code, Project No.)*	*Location*
12	OC/LA	ATPL 5955(112)	Cities of Cerritos, La Mirada, and Buena Park

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans. The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA).

Project Description:

The Orange County Department of Public Works, in cooperation with the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans), proposes an undertaking known as the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project in the Cities of Cerritos, La Mirada, and Buena Park, generally along the boundary between Los Angeles and Orange Counties, and within Caltrans District 12 (Federal Aid Project No. ATPL-5955(112); see Attachment A). Since the completion of the original HPSR for the undertaking in November 2020, the Orange County Department of Public Works has proposed the following updates or modifications to the project plans in response to technical issues encountered in the design process or coordination with owners of affected properties nearby:

- Two new construction staging areas have been delineated within the Coyote Creek Channel, near the southwestern end of the project alignment.
- At the Artesia Boulevard undercrossing on the boundary between the Cities of Buena Park and La Mirada, a 12x10-foot precast reinforced concrete box culvert is proposed in lieu of the originally planned cantilever over the Coyote Creek Channel. The culvert would be installed under the existing Artesia Boulevard bridge using the open cut method, which would require temporary closure of all or, alternatively, half of the traffic lanes on Artesia Boulevard.
- At the Union Pacific Railroad (UPRR) spur line (known as the UPRR Industry Lead) overcrossing in the City of La Mirada, a switchback is proposed on the northern (upstream) approach to maintain a maximum grade of five percent.
- At the intersection with the Burlington Northern Santa Fe (BNSF) Railway spur line (known as the BNSF Industry Lead) to the east of Knott Avenue in the City of Buena Park, a 12x12-foot reinforced concrete box culvert is proposed in lieu of the at-grade crossing. The installation would be accomplished through an open cut and would result in reconstruction of storm drains around the excavation site and an outfall to Coyote Creek.
- The originally proposed undercrossing at the BNSF mainline (also known as the Metrolink, Amtrak, or LOSSAN line) and at-grade crossing at Stage Road, near the boundary between the Cities of Buena Park and La Mirada, have been replaced by a continuous overcrossing over both three-track railroad corridor and the five-lane street. The overcrossing would also carry the bike path from the west side of Coyote Creek downstream to the east side upstream in lieu of the bridge over the channel to the north of Stage Road. Approximately 2,000 feet of bridge construction is required for this overcrossing.

 Copyright © 2020 State of California. All rights reserved
Alteration to the title and section headings is prohibited.

2. CHANGES TO AREA OF POTENTIAL EFFECTS

Because of the modifications to the project plans described above, the following adjustments to the horizontal and vertical extents of the Area of Potential Effects (APE) will be required, thus necessitating the current supplemental HPSR:

- The two newly added construction staging areas are located at the confluence between East Fork and North Fork of Coyote Creek in the City of Cerritos and near the Valley View Avenue undercrossing between the Cities of Cerritos and Buena Park (see Attachment A, Maps 3.1-3.3). They are encompassed entirely within the existing Coyote Creek Channel right-of-way and within the concrete-paved channel.
- Installation of the culvert at the Artesia Boulevard undercrossing would require deeper excavation than the cantilever option, to a maximum depth of 17 feet, and increase the width of ground disturbance nearby the Artesia Boulevard bridge over the Coyote Creek Channel. As a result, both the vertical and the horizontal extents of the APE have been expanded slightly at this location, but the entire APE remains within the boundaries of the existing Coyote Creek Channel right-of-way (see Attachment A, Map 3.4).
- The switchback at the UPRR spur line overcrossing would increase the width of that portion of the bridge. Consequently, a minor right-of-way acquisition would become necessary to accommodate an accompanying maintenance access road on the west side of the bridge. The additional right-of-way would be acquired from Assessor's Parcel No. (APN) 7003-009-909, which is currently owned by Caltrans, along with a temporary construction easement from the same parcel (see Attachment A, Map 3.6).
- At the undercrossing across the BNSF spur line, the vertical extent of the APE would increase to a maximum of 15 feet below the railroad bed. Minor right-of-way acquisitions would be required from a privately owned parcels adjoining the Coyote Creek Channel on the north (APN 066-010-53; 5655 Dolly Avenue in Buena Park). The parcel is occupied by a large industrial/commercial building of modern vintage (i.e., postdating 1972), and the acquisitions would occur along the southern edge of the parcel, where a paved parking lot is currently present (see Attachment A, Map 3.8).
- The overcrossing at the BNSF mainline and Stage Road would necessitate minor right-of-way acquisitions and/or temporary construction easements from two privately owned industrial/ commercial properties on the west side (APN 066-010-48 and 7001-020-039; 5650 Dolly Avenue in Buena Park and 15250-15300 Desman Road in La Mirada), from a vacant parcel on the west side (APN 066-581-05), and from the Amberwood Apartments complex on the east side (APN 066-584-09; 7667 Stage Road in Buena Park; see Attachment A, Maps 3.8-3.11). All three of the developed parcels are occupied by buildings constructed after 1972, and the acquisitions and/or easements would only involve portions of paved parking lots on these properties.

During the course of this survey, six residential properties in relatively close proximity to the proposed BNSF mainline and Stage Road overcrossing were initially included in the scope of the study due to potential indirect effect concerns, namely APN 066-141-01 (5501 Western Avenue in Buena Park), 066-293-01 to -04 (7728 to 7740 Granada Drive in Buena Park), and 066-403-14 (7724 Granada Drive in Buena Park), all of them occupied by single-family tract homes constructed in circa 1947-1965. However, they were ultimately excluded from the APE because

 Copyright © 2020 State of California. All rights reserved
Alteration to the title and section headings is prohibited.

they are located across the Coyote Creek Channel and the potential for such effects is determined to be minimal.

Three additional parcels that are adjacent to the proposed BNSF mainline and Stage Road overcrossing, APN 066-295-04, 066-295-06, and 066-582-03 (7580, 7600, and 7650 Stage Road in Buena Park), are occupied by industrial/commercial buildings that predate 1972, but Caltrans has determined that these warehouses of standard design and utilitarian character are not subject to potential indirect effects from the proposed undertaking. Therefore, these three parcels are also excluded from the APE.

The various components of the additional APE are located in a fully urbanized setting in the City of Buena Park, Orange County, and the Cities of Cerritos and La Mirada, Los Angeles County. Together, they represent an approximately 2.5-acre increase of the APE, of which approximately 1.4 acres would be subject to ground disturbance or other direct effects during the undertaking.

3. CONSULTING PARTIES / PUBLIC PARTICIPATION

☒ Local Government
Swati Meshram, Planning Manager at the City of Buena Park, was contacted by electronic mail and by telephone on August 4, 2021. On August 9, Ms. Meshram stated by telephone that she would review the materials and respond further if she had any information or concerns to share. No further response has been received. (See Attachment C)

☒ Local Historical Society / Historic Preservation Group
The Buena Park Historical Society were contacted by electronic mail and by telephone between August 4 and August 12, 2021. No responses have been received. (See Attachment C)

4. SUMMARY OF IDENTIFICATION EFFORTS

☒ National Register of Historic Places (NRHP)
☒ California Register of Historical Resources (CRHR)
☒ National Historic Landmark (NHL)
☒ California Historical Landmarks (CHL)
☒ California Points of Historical Interest
☒ California Historical Resources Information System (CHRIS)
☒ Caltrans Historic Bridge Inventory
☒ Other Sources consulted:

- Published literature in local/regional history
- U.S. Geological Survey topographic maps and geological maps (1896-2016)
- Aerial photographs of the project vicinity (1952-2021)
- Archival records of the County of Orange and the City of Buena Park

☒ Results:
The only features of historical or prehistoric origin encountered within the additional APE were the Coyote Creek (East Fork) Channel, the BNSF system (Site 19-186804/ 30-176663; formerly the Atchison, Topeka and Santa Fe Railway), and the UPRR

 Copyright © 2020 State of California. All rights reserved
Alteration to the title and section headings is prohibited.

system (19-186110/30-176630; formerly the Southern Pacific Railroad), all of which have been presumed eligible for listing in the NRHP for the purposes of this undertaking in existing Caltrans documentation. The proposed modifications to the project plans do not warrant revisiting the conclusion that the undertaking would have no adverse effects on these features. The Coyote Creek (East Fork) Channel would only be used for construction staging, and no permanent work is proposed within the channel. The undercrossing and overcrossings at the railroad lines are the same types addressed in the existing documentation and present no additional potential for any adverse effects on the historic significance or integrity of the historical features.

5. ADDITIONAL PROPERTIES IDENTIFIED

☒ The following properties within the APE are **considered eligible** for inclusion in the NRHP for the purposes of this project only because evaluation was not possible, in accordance with Section 106 PA Stipulation VIII.C.4:

- Site 19-186110/30-176630 Southern Pacific Railroad (now UPRR)
- Site 19-186804/30-176663 Atchison, Topeka and Santa Fe Railway (now BNSF)
- (Primary number pending) Coyote Creek (East Fork) Channel

6. REVISED FINDING FOR THE UNDERTAKING

☒ Caltrans, pursuant to Section 106 PA Stipulation IX.A, has determined a Finding of **No Historic Properties Affected** is appropriate for this undertaking because the following historic properties will not be affected:

- Site 19-186110/30-176630 Southern Pacific Railroad (now UPRR)
- Site 19-186804/30-176663 Atchison, Topeka and Santa Fe Railway (now BNSF)
- (Primary number pending) Coyote Creek (East Fork) Channel

7. ADDITIONAL CEQA CONSIDERATIONS

☒ Not applicable; **Caltrans is not the lead agency under CEQA**.

8. LIST OF ATTACHED DOCUMENTATION

☒ Project Vicinity, Location, and APE Maps
- Attachment A

☒ Archaeological Survey Report (ASR)
- Stephen O'Neil: Supplemental Archaeological Survey Report, OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, Orange County Department of Public Works, Orange County, California (Attachment B)

☒ Other
- Correspondence with local community representatives (Attachment C)

Copyright © 2020 State of California. All rights reserved
***Alteration to the title and section headings is prohibited**.*

9. SUPPLEMENTAL HPSR PREPARATION AND CALTRANS APPROVAL

Prepared by: _____ October 4, 2021
Bai "Tom" Tang, Principal Architectural Historian Date
CRM TECH, 1016 E. Cooley Drive, Suite A/B, Colton, CA 92324

Reviewed for
Approval by: _____ 10-4-2021
District 12 Caltrans PQS: Jonathan M. Wright Date

Approved by: _____ 10/4/2021
District 12 EBC: Charles Baker Date

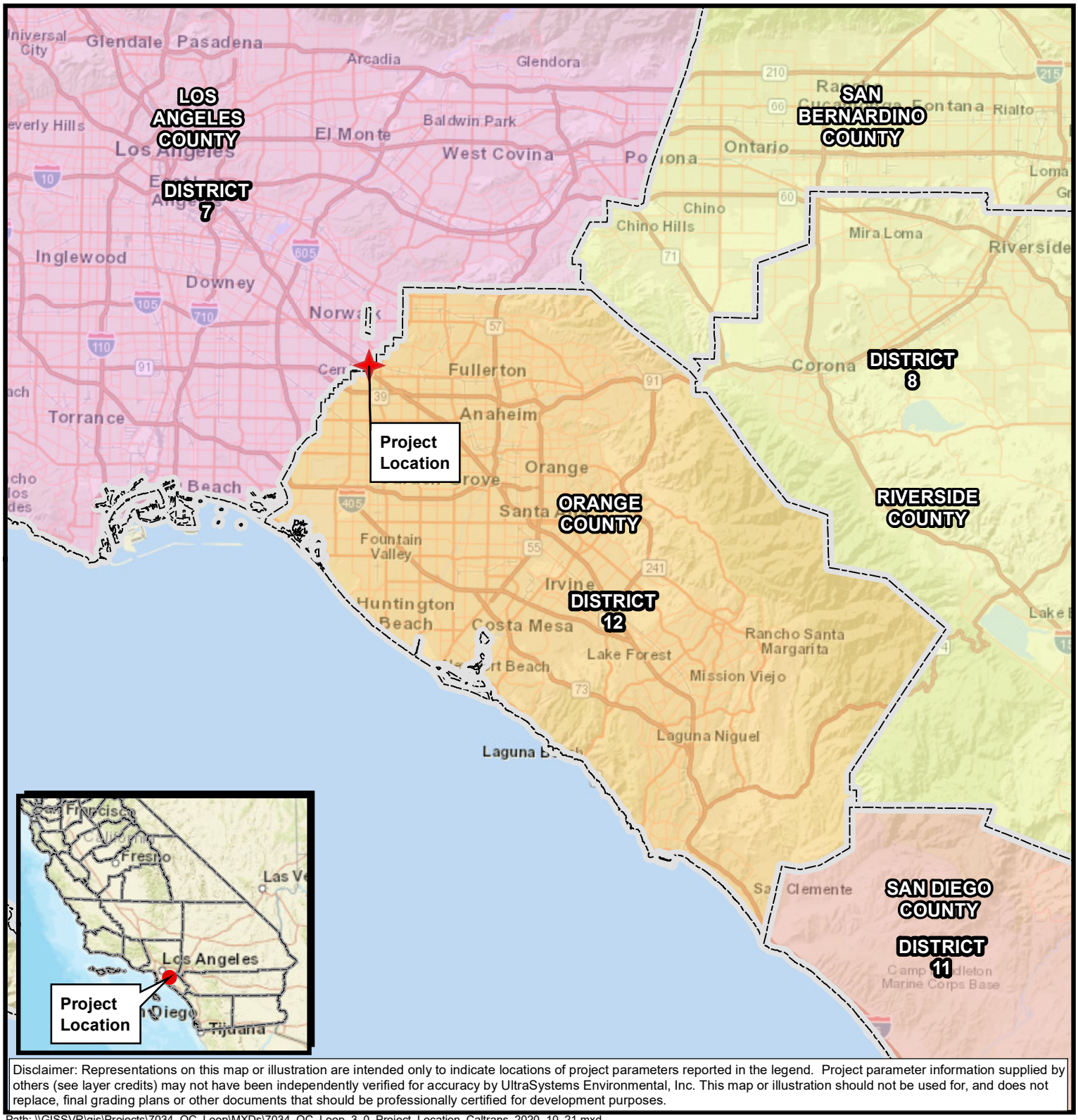
Copyright © 2020 State of California. All rights reserved

ATTACHMENT A
PROJECT MAPS

MODIFICATIONS TO OC LOOP SEGMENTS O, P, AND Q COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_3_0_Project_Location_Caltrans_2020_10_21.mxd

October 21, 2020

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community; California Department of Forestry and Fire Protection, May 2009; UltraSystems Environmental, Inc., 2020.

Scale: 1:506,880

N

0 4 8 Miles

0 4.5 9 Kilometers

Legend

Project Location

County Boundary

Caltrans District

7

8

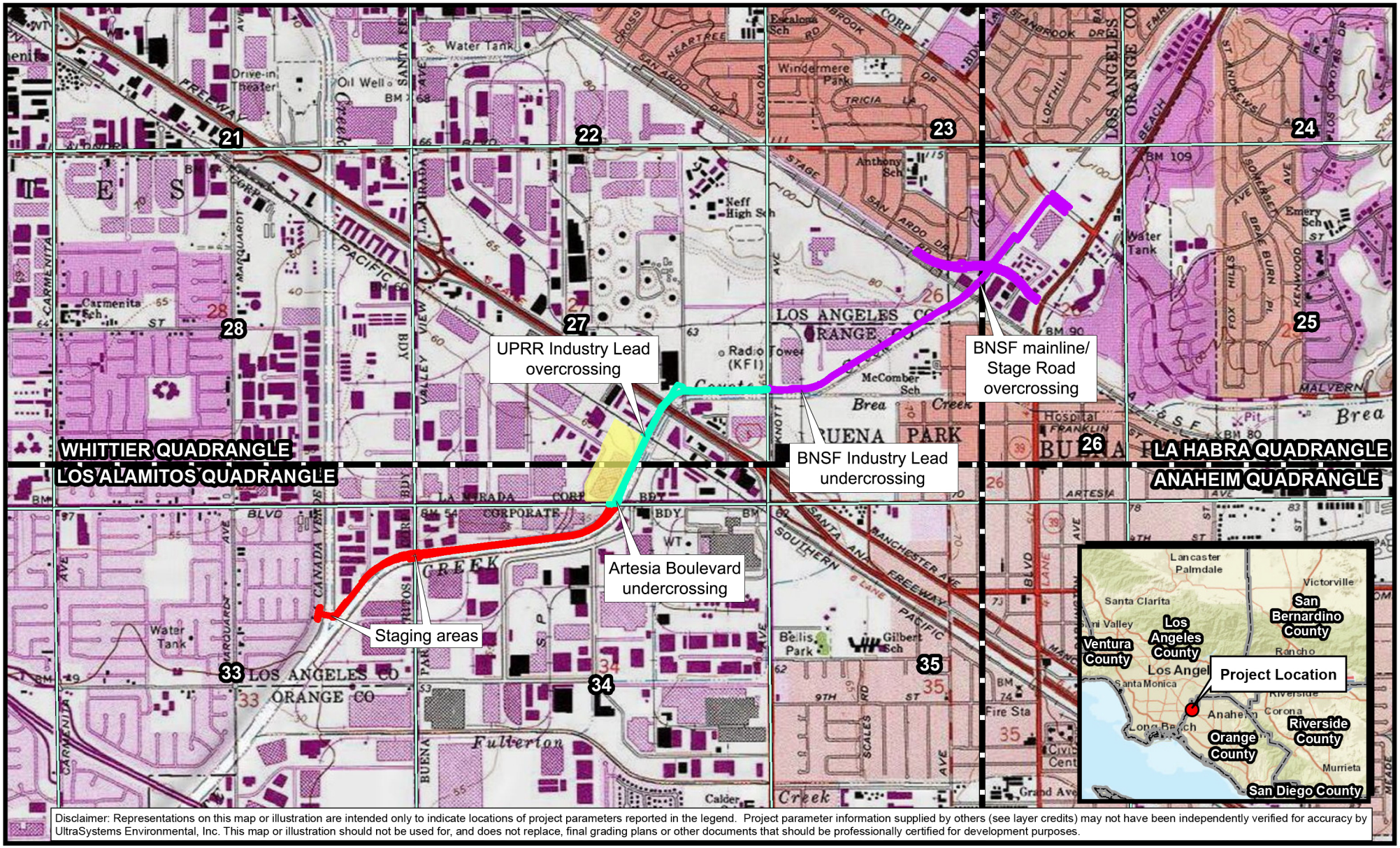
11

12

OC Loop
Segments O, P, and Q
Coyote Creek Bikeway Project

Map 1. Project Vicinity

UltraSystems
environmental • management • planning



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Cul_Topo_2020_10_22.mxd

October 22, 2020

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community,
Copyright:© 2013 National Geographic Society, i-cubed; CA Dept. of Conservation, 2011; UltraSystems Environmental, Inc., 2020

Scale: 1:24,000

N

0 1,000 2,000 Feet

0 250 500 Meters

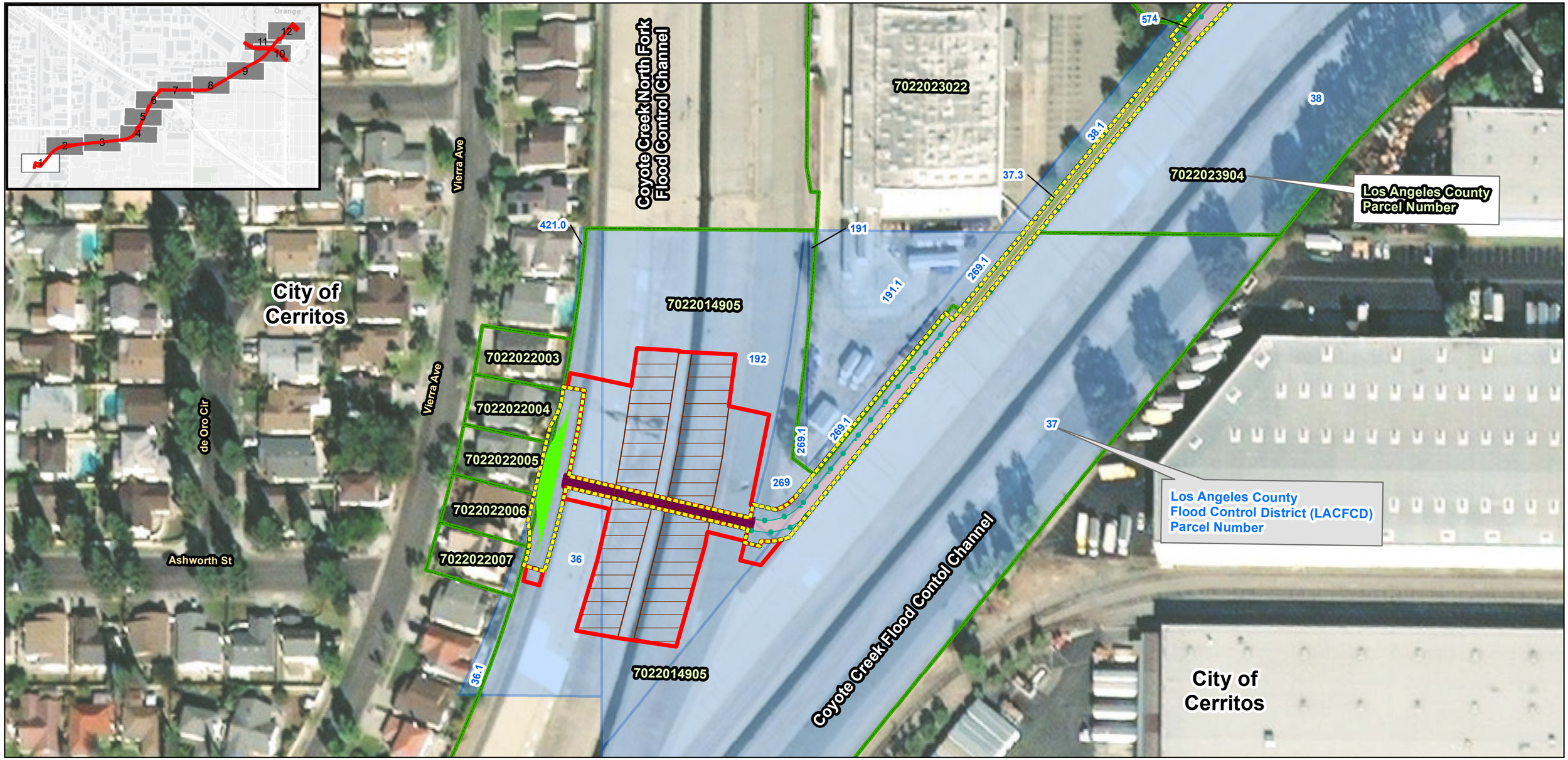
Legend

- Segment O
- Segment P
- Segment Q
- Quadrangle Boundary
- Section Boundary
- APE for Indirect Effects

OC Loop Segments O, P, and Q
Coyote Creek Bikeway Project

Map 2. Locations of Project Modifications
USGS Quadrangle: La Habra, Los Alamitos, Whittier
Township: 3S Range: 11W
Sections 26, 27, 33, 34

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30_pg1.mxd

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Legend

- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment O Class I Bikeway
- New Staging Area 1
- Optional Fence
- Prefabricated Truss Bridge
- Re-align Existing Bike Path
- Los Angeles County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Caltrans District 12
APPROVALS

Signature: Tifini Tran
Caltrans District 12 Local Assistance Engineer

10/04/2021
Date

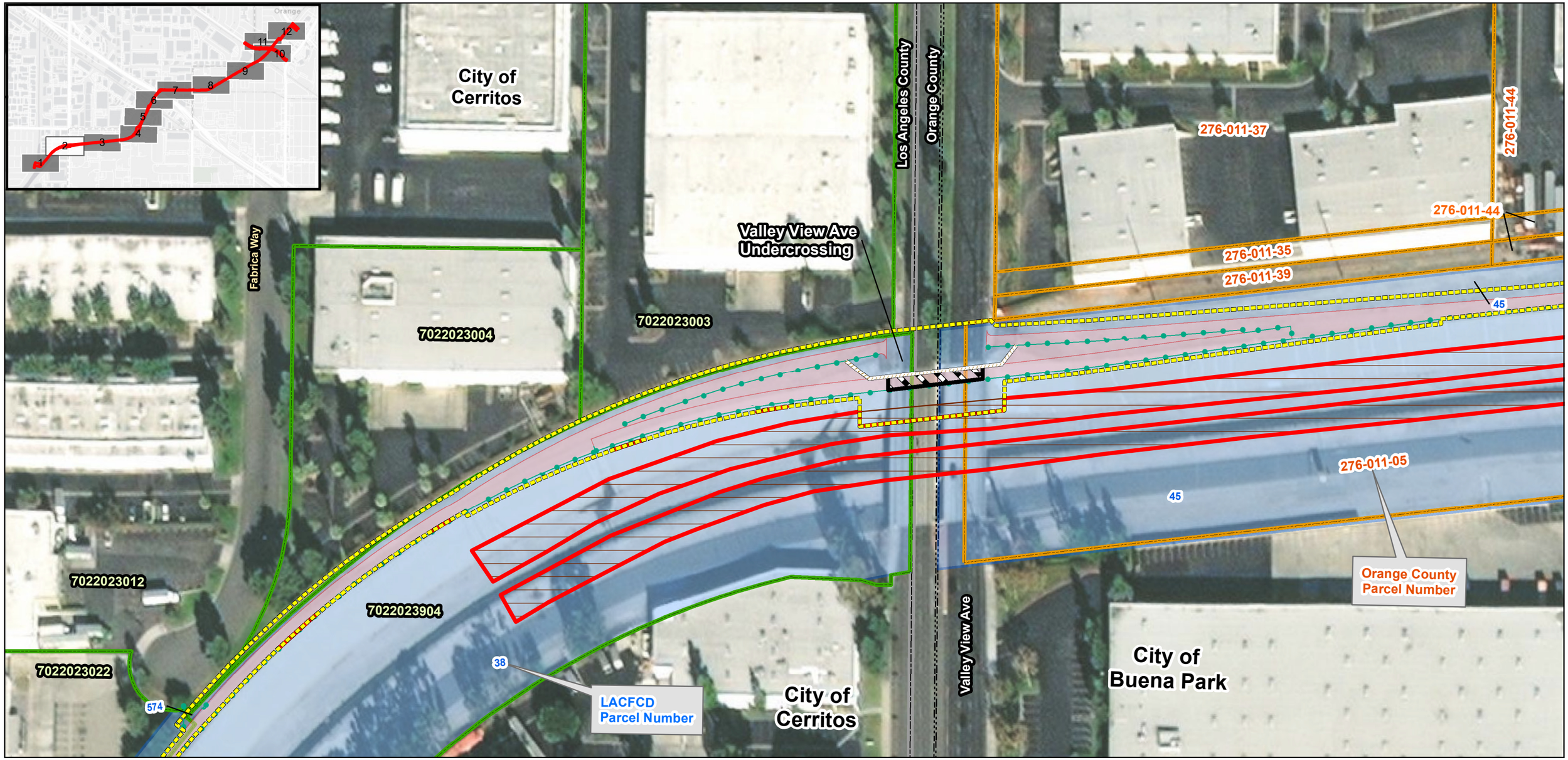
Signature: Jonathan M.Wright
Caltrans Professionally Qualified Staff

10-4-2021
Date

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

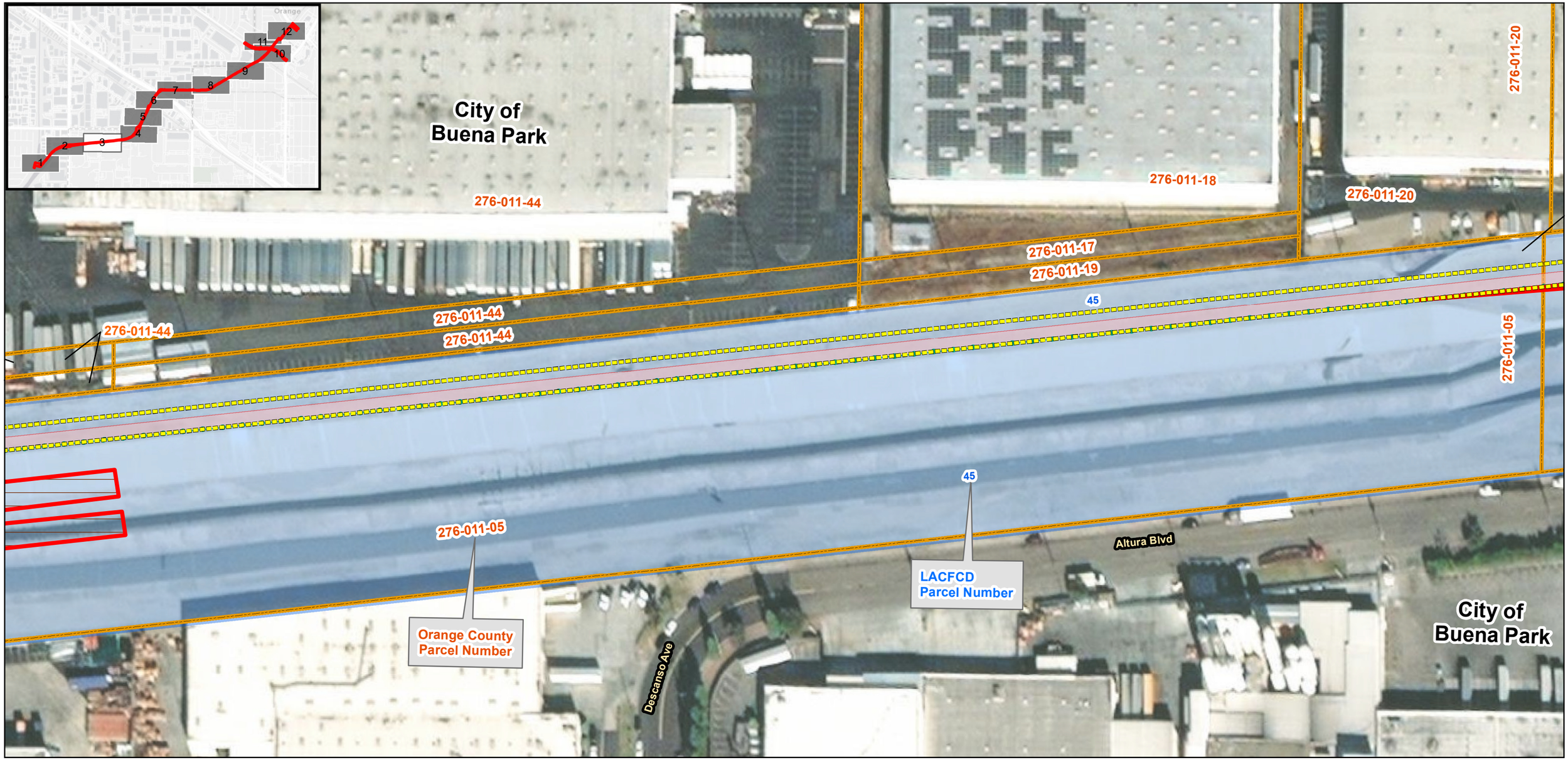
Legend

- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment O Class I Bikeway
- New Staging Area 2
- Proposed Undercrossing
- Optional Fence
- Wall
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

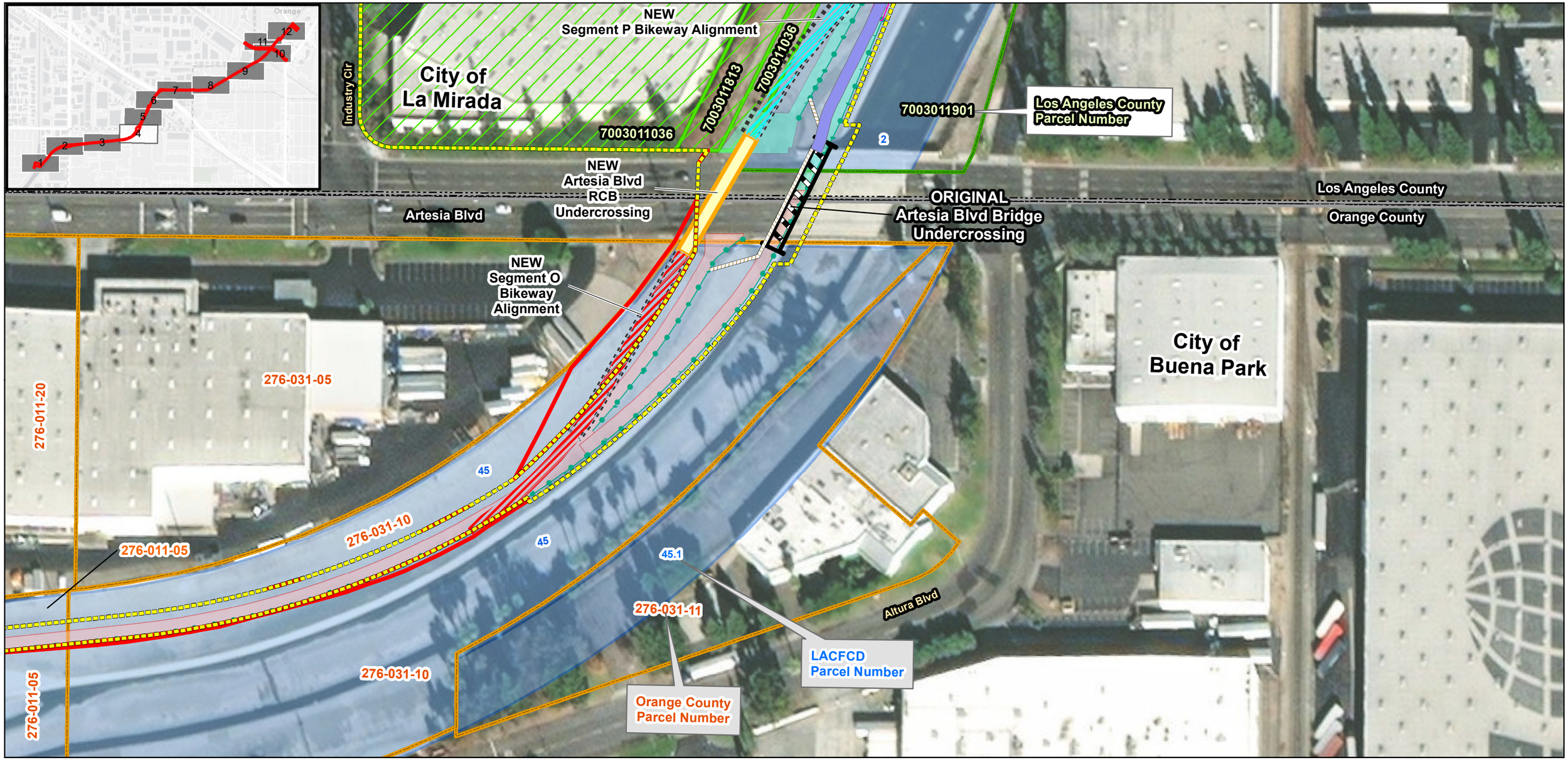
- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment O Class I Bikeway
- New Staging Area 2
- Optional Fence
- Orange County Parcels
- LACFCD ROW
- County Boundary

OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

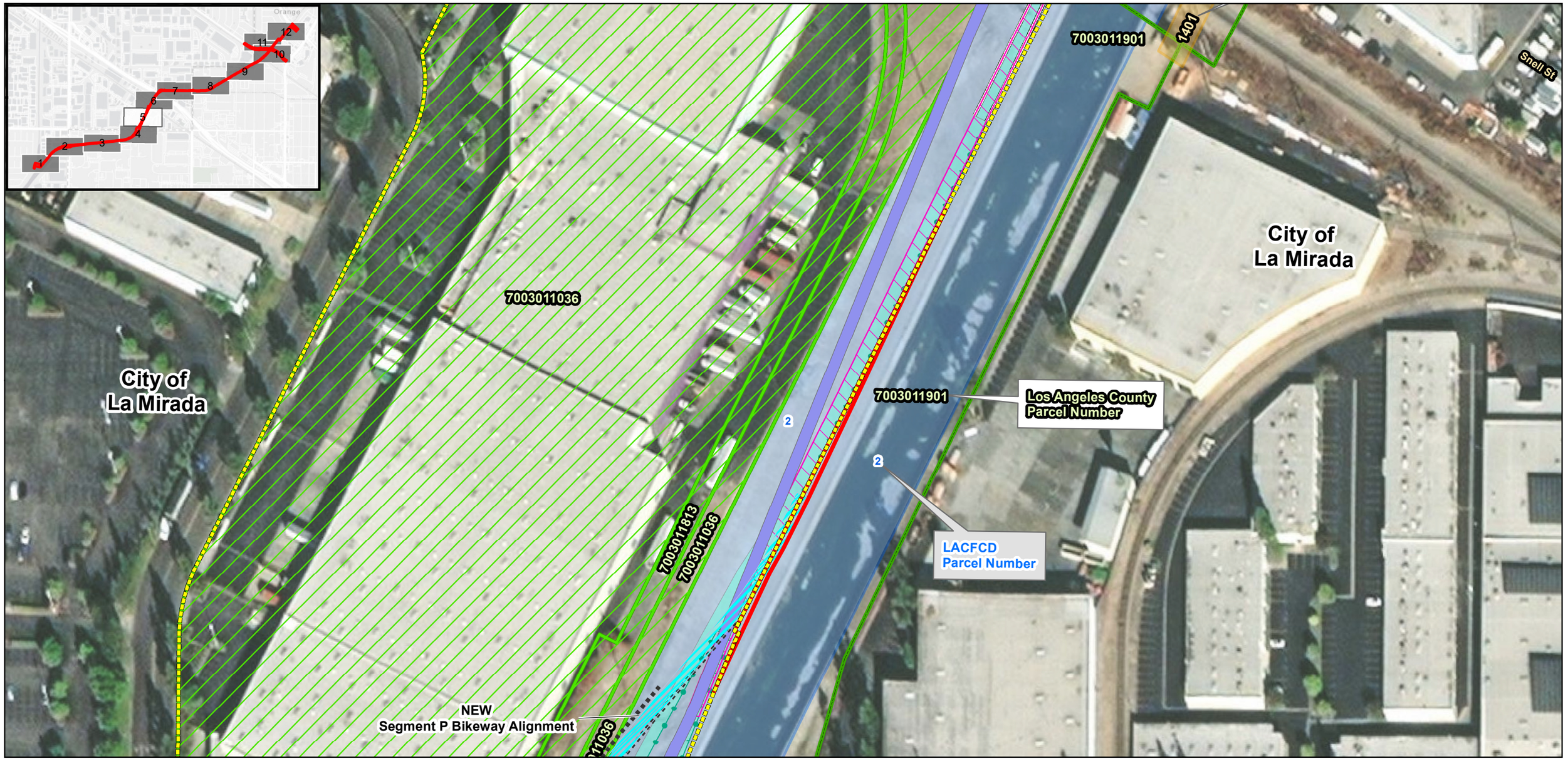
- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment O Class I Bikeway
- Original Segment P Class I Bikeway
- New Artesia Open Cut Box Culvert
- New Segment O Artesia Bikeway
- New Segment P Artesia Bikeway
- Retaining Wall
- New UPRR Overcrossing Bikeway Alignment
- Proposed Undercrossing
- Optional Fence
- Potential UPRR Overcrossing
- Wall
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 4 of 12)

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment P Class I Bikeway
- New Segment P Artesia Bikeway
- Retaining Wall
- New UPRR Overcrossing Bikeway Alignment
- Optional Fence
- Potential UPRR Overcrossing
- Wall
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- LACFCD ROW
- OCFCD ROW
- City Boundary
- County Boundary

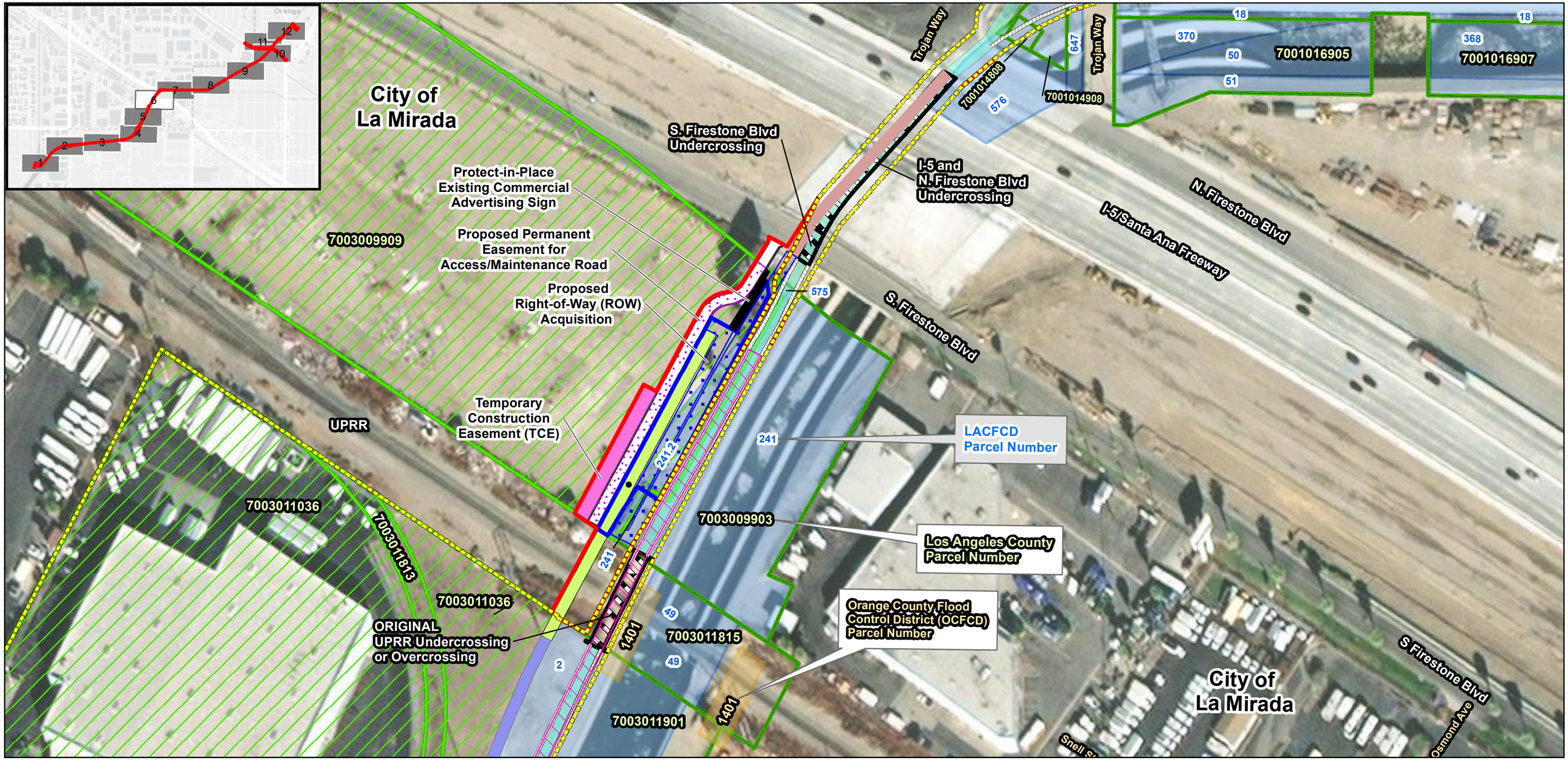
OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 5 of 12)

UltraSystems
environmental•management•planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

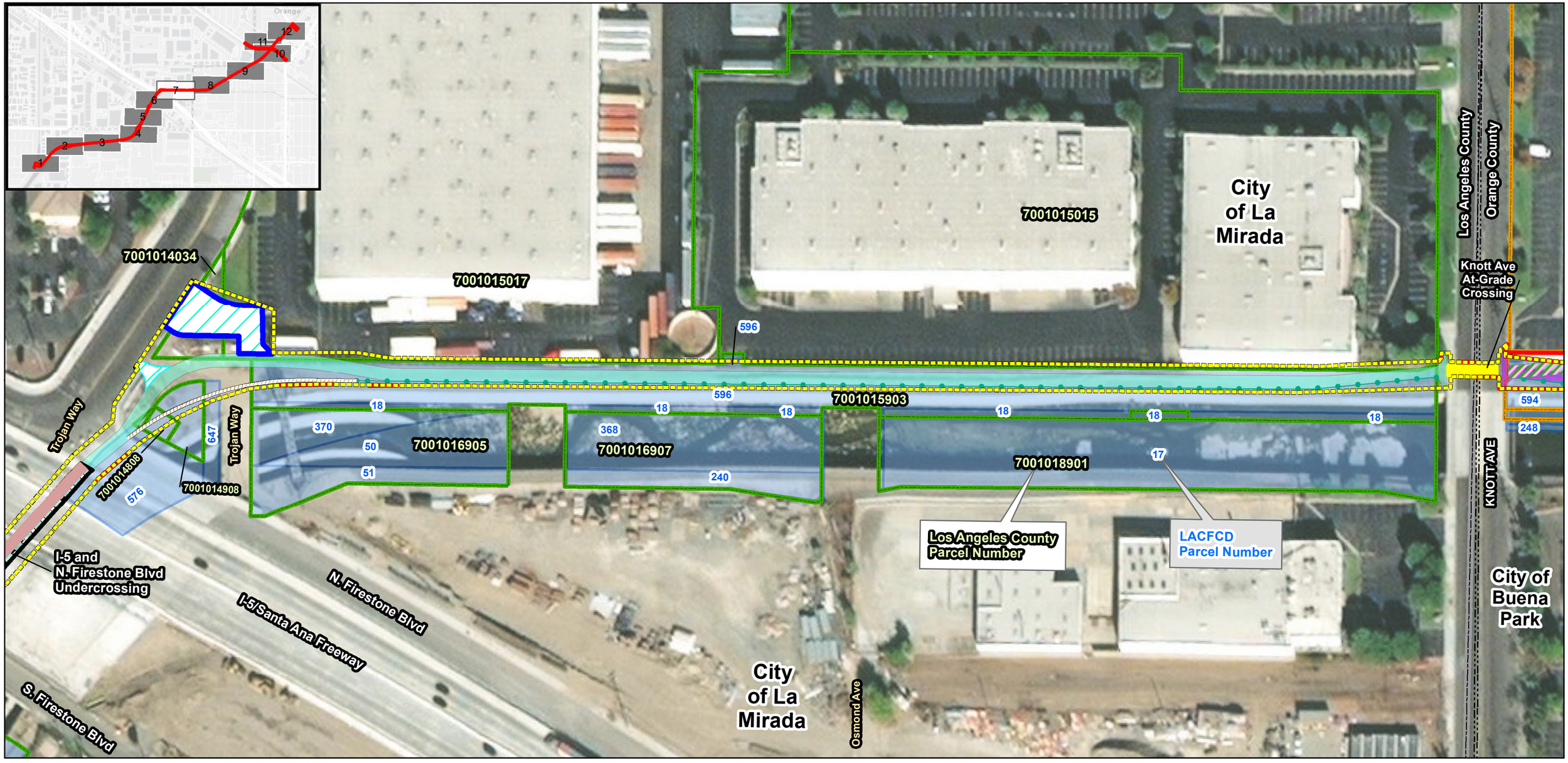
- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment P Class I Bikeway
- New Access & Maintenance Road
- New Road Undercrossing Alignment
- New UPRR Overcrossing Bikeway Alignment
- New Switchback Ramp
- New UPRR Overcrossing Bridge
- Proposed Undercrossing
- Potential UPRR Overcrossing
- Wall
- Concrete Column
- Proposed Permanent Easement for Access/Maintenance Road
- Proposed Right-of-Way (ROW) Acquisition
- Protect-in-Place Existing Commercial Advertising Sign
- Temporary Construction Easement (TCE)
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- LACFCD ROW
- OCFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 6 of 12)

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

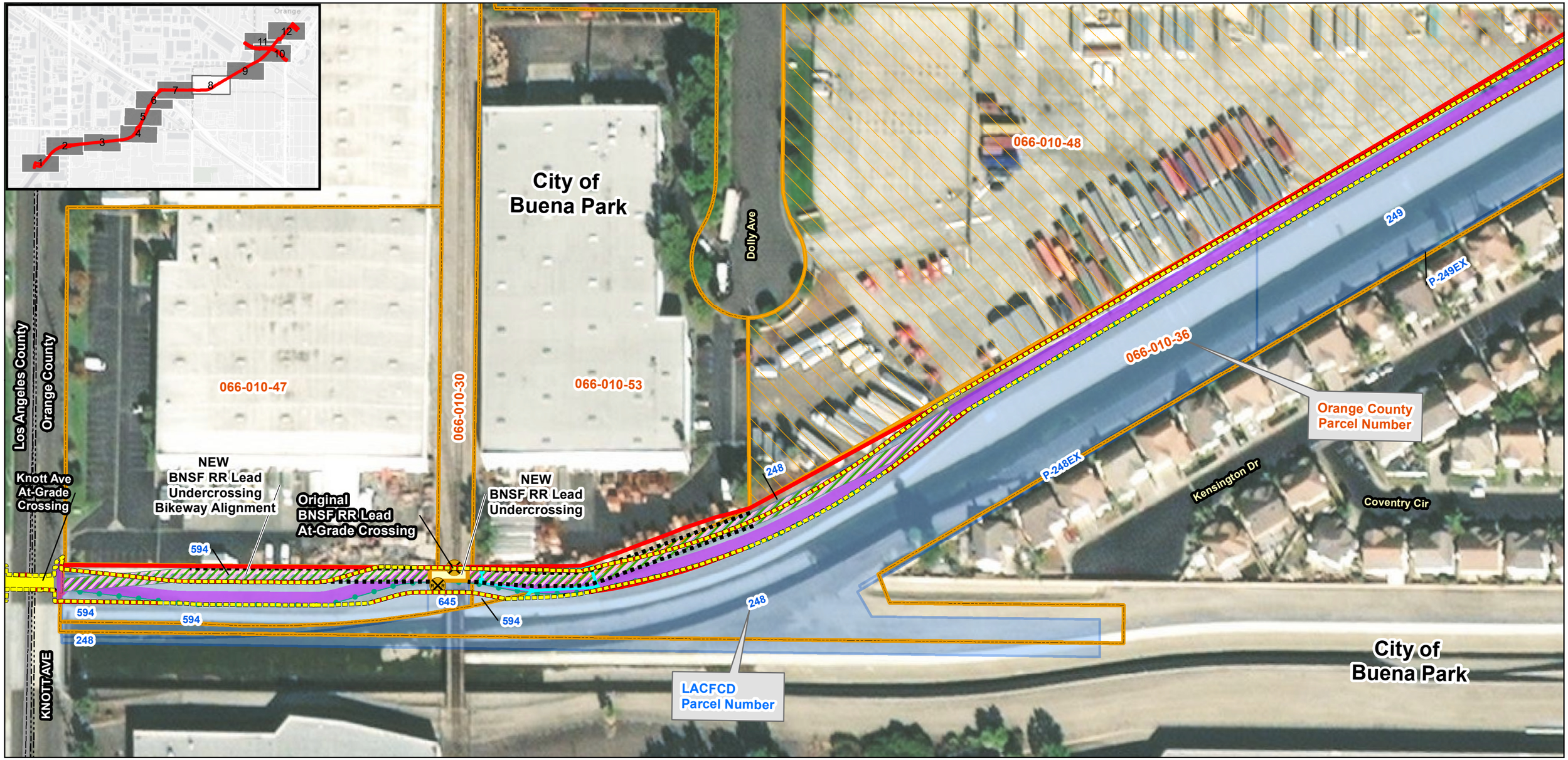
- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment P Class I Bikeway
- Original Segment Q Class I Bikeway
- New BNSF Lead Undercrossing Bikeway
- New Road Undercrossing Alignment
- Proposed Undercrossing
- Optional Fence
- Wall
- Potential Driveway
- Proposed Easement
- At-grade Crossing
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

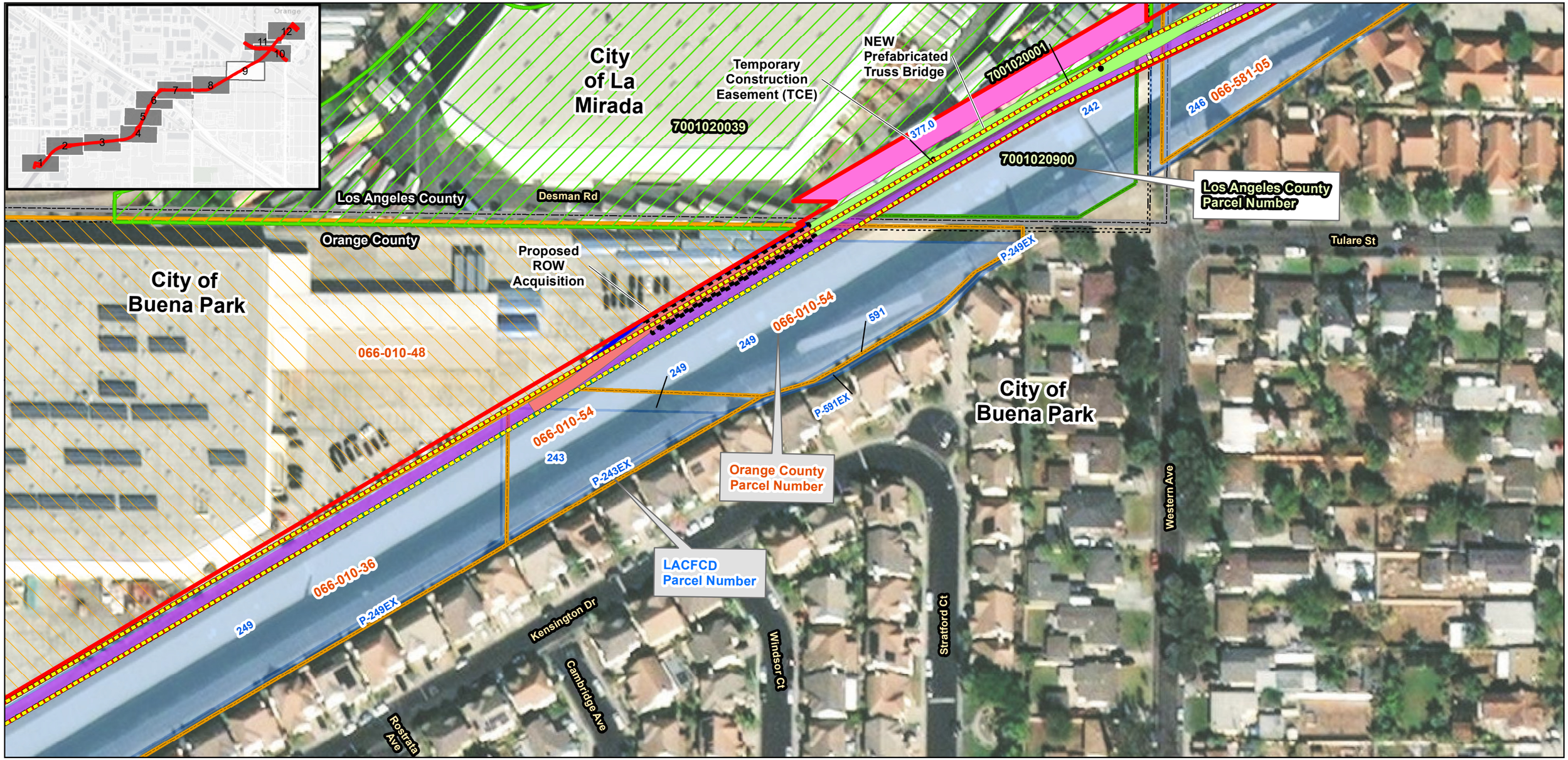
Legend

- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment Q Class I Bikeway
- New BNSF Lead Undercrossing
- New BNSF Lead Undercrossing Bikeway
- New BNSF Lead Storm Drain and Outfall
- Retaining Wall
- Optional Fence
- At-grade Crossing
- Railroad Crossing Signal
- Orange County Parcels Subject to Potential Indirect Effects
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

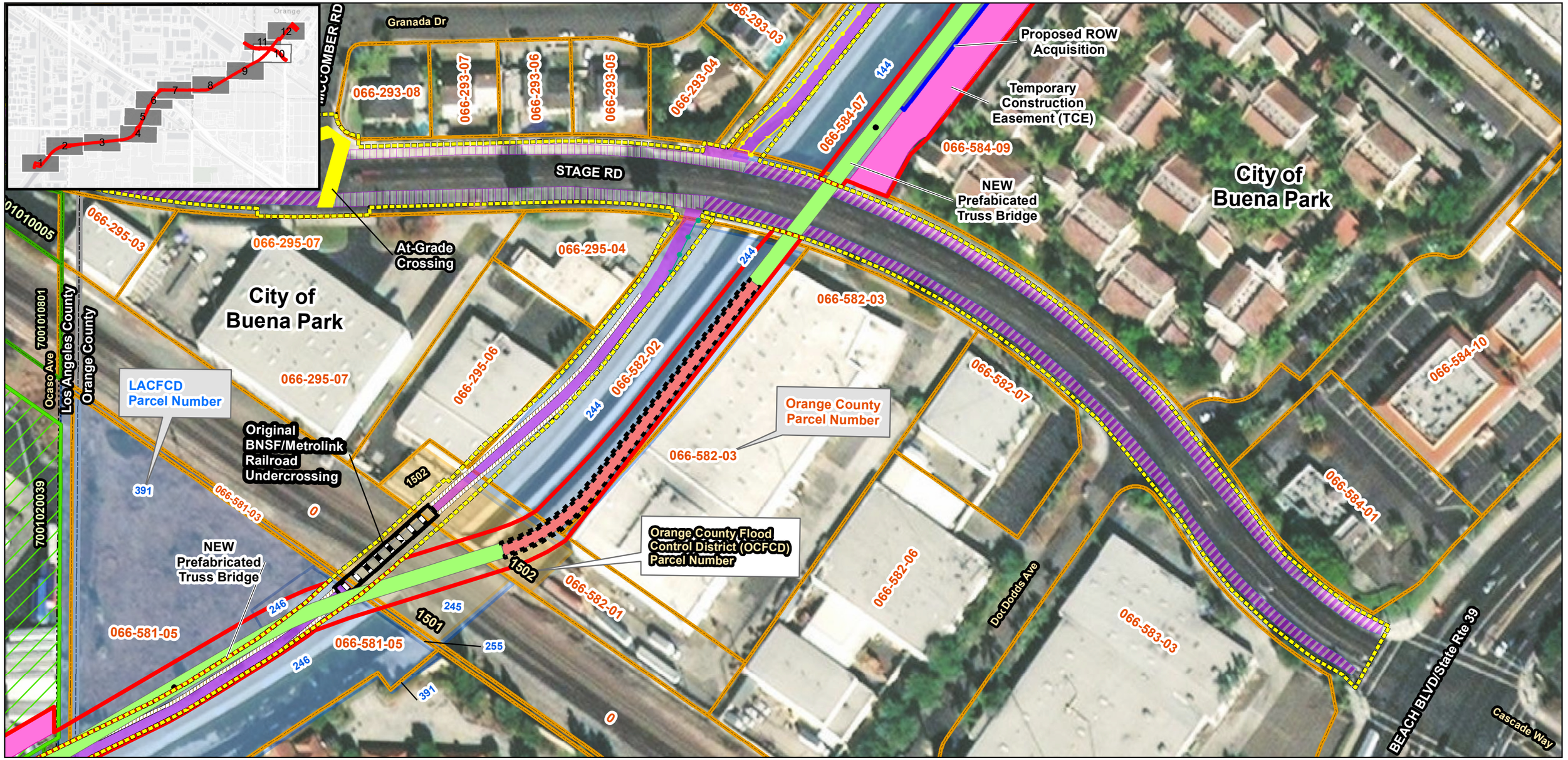
- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment Q Class I Bikeway
- New BNSF/Metrolink Overcrossing Bikeway
- New Prefabricated Truss Bridge
- Proposed ROW Acquisition
- Temporary Construction Easement (TCE)
- Retaining Wall
- Concrete Column
- Proposed Power Pole
- Optional Fence
- Wall
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Orange County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 9 of 12)

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment Q Class I Bikeway
- Original Segment Q Class II Bikeway
- Original Segment Q Class IV Bikeway with Concrete Barriers
- New BNSF/Metrolink Overcrossing Bikeway
- New Prefabricated Truss Bridge
- Proposed ROW Acquisition
- Temporary Construction Easement (TCE)
- Retaining Wall
- Concrete Column
- Proposed Undercrossing
- Asphalt Trail and Cable Fence
- Optional Fence
- Wall
- Road Crossing
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- OCFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 10 of 12)

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment Q Class I Bikeway
- Original Segment Q Class II Bikeway
- Original Segment Q Class IV Bikeway with Concrete Barriers
- New BNSF/Metrolink Overcrossing Bikeway
- New Prefabricated Truss Bridge
- Proposed ROW Acquisition
- Temporary Construction Easement (TCE)
- Retaining Wall
- Concrete Column
- Asphalt Trail and Cable Fence
- Optional Fence
- Road Crossing
- Original Prefabricated Truss Bridge
- Los Angeles County Parcels Subject to Potential Indirect Effects
- Los Angeles County Parcels
- Orange County Parcels
- LACFCD ROW
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
Project Modifications

Map 3:
Area of Potential Effects (APE)

UltraSystems
environmental • management • planning



Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\UpdatedMaps_2021_08\7034_OC_Loop_Additional_APE_Cultural_2021_09_30.mxd
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community; LACFCD, 2019; Los Angeles County, 2018; Orange County, 2018; Mark Thomas, July 2018; GHD August 2021; UltraSystems Environmental, Inc. 2021

September 30, 2021

Scale: 1:1,200

N

0 50 100 Feet

0 15 30 Meters

Legend

- Additional Area of Potential Effects (APE)
- Original Area of Potential Effects (APE)
- Original Segment Q Class I Bikeway
- New BNSF/Metrolink Overcrossing Bikeway
- Asphalt Trail and Cable Fence
- Optional Fence
- Tree to be removed
- Original Prefabricated Truss Bridge
- Proposed Easement
- Orange County Parcels
- LACFCD ROW
- County Boundary

OC Loop
Segments O, P, and Q

Project Modifications

Map 3:
Area of Potential Effects (APE)

(Sheet 12 of 12)

UltraSystems
environmental • management • planning

ATTACHMENT B
SUPPLEMENTAL
ARCHAEOLOGICAL SURVEY REPORT

OC LOOP SEGMENTS O, P, AND Q COYOTE CREEK BIKEWAY PROJECT

Orange County Department of Public Works
Orange County, California

Federal Project No. ATPL-5955(112)
Funding Source: Federal State Transportation Implementation Program
Local Agency: Orange County Department of Public Works (TO No. PW13667-051)

Prepared by:

Stephen O'Neil, M.A., RPA, Principal Investigator, Archaeology
UltraSystems Environmental, Inc., 16431 Scientific Way, Irvine, CA 92618

Reviewed by:

Jonathan M. Wright, Caltrans Professionally Qualified Staff
California Department of Transportation, District 12
1750 East 4th Street, Santa Ana, CA 92705

Approved by:

Charles Baker

Charles Baker, Senior Environmental Planner
California Department of Transportation, District 12
1750 East 4th Street, Santa Ana, CA 92705

August 27, 2021

Approximately 5.11 acres
USGS La Habra, Los Alamitos and Whittier, Calif., 7.5' quadrangles
Sections 26, 27, 33 and 34 of T3S R11W, SBBM; Coyote Creek; Orange County

SUMMARY OF FINDINGS

The present Archaeological Survey Report (ASR) is prepared for the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway Project (Federal Aid Project No. ATPL-5955(112)) in the cities of Cerritos (Los Angeles County), Buena Park (Orange County), and La Mirada (Los Angeles County), within Caltrans District 12. A gap in the 66-mile regional bikeway corridor called the OC Loop is located along the length of the Coyote Creek flood control channel upstream and downstream of the Santa Ana Freeway (I-5 Freeway). This gap is designated as Segments O, P and Q. The OC Loop Segments O, P and Q (proposed project) begin at the existing Coyote Creek Bikeway (in the city of Cerritos) where the flood channel divides into north and east forks, running 2.7 miles connecting to another portion of the Coyote Creek Bikeway at La Mirada Boulevard/Malvern Avenue in the cities of Buena Park and La Mirada. The undertaking entails the construction of an asphalt bike path, 12 to 16 feet wide, along the existing maintenance road on the bank of the Coyote Creek flood control channel. Fencing, such as a five-foot-high chain link fence or four-foot tall cable fence may be installed on one or both sides; the fencing may be installed along the entire 2.7 miles of new bike trail if necessary. The bike path will be placed primarily on the west bank until, upstream from Stage Road, it will move to the east bank of Coyote Creek for the remaining 675 feet to La Mirada Boulevard. Where the bike path is at grade, the path would be asphalt and be 14 to 16 feet wide inclusive of the two-foot shoulders on each side, wherever a fence is added for safety. Where the bike path would travel beneath grade (below bridges), the bike path surface would be concrete and 10 to 14 feet wide with no shoulders. At street bridges the bike path will generally be below grade under the street or the bridge. At railroad bridges the bike path will generally be above grade on a bridge over the railroad. There will be an at-grade crossing at Knott Avenue. Several dirt ramps will be built at road crossing to allow access to and from streets. There will be bike/pedestrian bridges crossing the channel from bank to bank at the north and south ends of the project. Only standard and minimal bike signage and location maps conforming to OC Parks signage codes and criteria are required. (See HPSR Attachment A).

The Area of Potential Effects (APE) for the undertaking encompasses the maximum extent of ground disturbance required by the project design, both horizontally and vertically, as well as adjacent parcels occupied by historic-period buildings that may receive visual, atmospheric, or other indirect effects as a result of the undertaking (see HPSR Attachment A, Map 3) (approved and signed November 16, 2020). It comprises approximately 15.17 acres in total, all of which are subject to temporary and permanent ground disturbances during construction, and 5.11 acres of permanent disturbance. The vertical extent of the APE will not exceed the depth of 18.5 feet below the ground surface. The total additional APE with the design changes is 2.5 acres, and the area of permanent disturbance is an additional 1.4 acres.

The Study Area for this ASR covers the 15.17 acres that will be subject to temporary and permanent ground disturbances. The ASR is prepared in compliance with Section 106 of the National Historic Preservation Act, as implemented through federal regulations outlined in 36 CFR 800, and in accordance with the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as It Pertains to the Administration of the Federal-Aid Highway Program in California.*

The purpose of the survey is to identify any archaeological resources that may receive physical impact from the proposed undertaking. The scope of the study included a historical/archaeological resources records search, historical and geoarchaeological background research, consultation with Native American and local community representatives, and a systematic field survey. Throughout the course of the study, no prehistoric archaeological features or artifact deposits were encountered within the APE, and the subsurface alluvial sediments within the vertical extent of the APE appear to be low in sensitivity for potentially significant archaeological remains of prehistoric origin in buried deposits. There are two historic cultural resources that cross the APE, segments of the Union Pacific Railroad and the Burlington Northern Santa Fe Railway; the Union Pacific Railroad (19-186110/30-176630) intersects Segment P and the Burlington Northern Santa Fe Railway (19-186804/30-176663) intersects Segment Q.

Based on these findings, the present ASR concludes that no archaeological resources will be affected by the proposed undertaking. It is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during the undertaking, it is Caltrans' policy that work stop within 60 feet of the discovery until a qualified archaeologist can evaluate the nature and significance of the find. Additional surveys will be required if the project changes to include areas not previously surveyed.

TABLE OF CONTENTS

SUMMARY OF FINDINGS i
INTRODUCTION 1
PROJECT LOCATION AND DESCRIPTION 1
Summary of Segment O Improvements 3
Summary of Segment P Improvements 4
Summary of Segment Q Improvements 5
SOURCES CONSULTED 11
Summary of Methods and Results 11
Summary of Additional Research 13
Summary of Native American Consultation 14
Summary of Consultation with Local Communities 14
BACKGROUND 15
FIELD METHODS 16
STUDY FINDINGS AND CONCLUSIONS 28
REFERENCES 28

LIST OF FIGURES

Figure 1. Start of Segment O at North-Fork of Coyote Creek Channel (View to the Northwest). 18
Figure 2. West Channel Embankment Between the North Fork and Valley View Avenue Bridge (View to the Northeast). 19
Figure 3. Coyote Creek Channel Embankment Between Valley View Avenue and Artesia Boulevard (View to the East). 20
Figure 4. Artesia Boulevard Bridge (View to the East). 20
Figure 5. Homeless Encampment Under Artesia Boulevard Bridge (View to the West). 20
Figure 6. Oil Pipeline and BNSF Railroad Bridge Over the Channel in Segment P (View to the Northeast). 21
Figure 7. BSF Railroad Bridge and Oil Pipeline Over Coyote Creek Channel (View to the Southeast). 21
Figure 8. Large Homeless Encampment at Railroad Bridge, South of S. Firestone Boulevard (View to the Northeast). 22
Figure 9. S. Firestone Boulevard Bridge Crossing the Channel (View to the Northeast). 22
Figure 10. Homeless Encampment on LACFCD Parcel and Chanel Bank South of S. Firestone Boulevard. (View to the Southwest). 23
Figure 11. Construction Work Along the Channel Between S. Firestone Blvd., the Santa Ana Freeway, and N. Firestone Blvd. (View to the Northeast). 23
Figure 12. West Channel Embankment with Commercial Buildings on Both Sides, North of the Santa Ana Freeway (View to the East). 24
Figure 13. Knott Avenue Bridge Over the Channel (View to the East). 24
Figure 14. BNSF Railroad Bridge over the Channel, East of Knott Avenue (View to the East). 25
Figure 15. Commercial Buildings on the West Side and Residential on the East Side of the Channel (View to the Northeast). 25

Figure 16. BNSF Railroad Bridge Over the Channel South of Stage Road (View to the Northeast). 26
Figure 17. Stage Road Bridge Over the Coyote Creek Channel (View to the Northeast). 26
Figure 18. Landscaping on Both Sides of the Channel Embankments with La Mirada Boulevard Bridge in Background (View to the Northeast).....27
Figure 19. Ornamental Landscaping Along Proposed Bike Trail Beside La Mirada Boulevard (View to the Southeast). 27

INTRODUCTION

This Archaeological Survey Report (ASR) is prepared for the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway Project in the cities of Cerritos, Buena Park and La Mirada (Federal Aid Project No. ATPL-5955(112)) (see HPSR Attachment A, Map 1). The survey was conducted in compliance with Section 106 of the National Historic Preservation Act, as implemented through federal regulations outlined in 36 CFR 800. All cultural resources investigations reported herein comply with the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as It Pertains to the Administration of the Federal-Aid Highway Program in California*.

The archaeological field survey was conducted on February 6, 2020, with a supplemental field survey on August 14, 2021, by Stephen O'Neil, principal investigator for this ASR. O'Neil earned a B.A. degree in anthropology from California State University, Long Beach, in 1979 and an M.A. degree in cultural anthropology from California State University, Fullerton, in 2002. He has over 35 years of experience as a cultural resource specialist in California.

In addition to the archaeological field survey, Stephen O'Neil also conducted the cultural resources records search, the geoarchaeological analysis, and consultation with Native American representatives with the assistance of project archaeologist Megan Black Doukakis (B.A., anthropology, California State University, Long Beach, 2011, and M.A., public archaeology, California State University, Northridge, 2018). Other components of the scope of the study included historical background research, carried out by project historian Terri Jacquemain (M.A., public history, University of California, Riverside, 2004) and consultation with local community representatives.

PROJECT LOCATION AND DESCRIPTION

The Orange County Department of Public Works, in cooperation with the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans), proposes to construct an asphalt bike path along the west bank of the Coyote Creek Channel starting at the confluence of the north and east forks of the channel at the south end in the city of Cerritos, north for 2.7 miles connecting to another portion of the Coyote Creek Bikeway at La Mirada Boulevard/Malvern Avenue in the cities of Buena Park and La Mirada. This undertaking will be conducted in a work area approximately 250 feet wide (east/west) and 2.7 miles long (north/south), closing a gap in the 66-mile regional bikeway corridor called the OC Loop that is located along the length of the Coyote Creek flood control channel upstream and downstream of the Santa Ana Freeway (I-5 Freeway). This gap is designated as Segments O, P, and Q (Federal Project No. ATPL-5955(112)). The undertaking is located in the cities of Cerritos, Buena Park, and La Mirada in Orange County and Los Angeles County within Caltrans District 12 (see Attachment A, Maps 1-3) (approved and signed November 16, 2020).

Since the completion of the original ASR in November 2020, the Orange County Department of Public Works has made several updates to the project plans in response to technical issues encountered in the design process or coordination with owners of nearby affected properties, particularly the Burlington Northern Santa Fe (BNSF) Railway Company. These have been added to the Summary Improvement descriptions below.

Project Location and Context

OC Loop Segments O, P, and Q Coyote Creek Bikeway Project (proposed project) involves the construction of a 2.7-mile Class I Bikeway along the Coyote Creek storm drain channel in the City of Cerritos on the south, through the City of La Mirada, to the City of Buena Park to the north. The 2.7-mile Class I Bikeway is a component of a 66-mile regional bikeway corridor called the OC Loop. The proposed project would be located along the northwest Orange County/southwest Los Angeles County border.

The proposed project would, at its southern terminus, begin at the existing Coyote Creek Bikeway (in the City of Cerritos) at the confluence of the north and east forks of the Coyote Creek Flood Control Channel. The alignment of the proposed project trends in a northeast direction for approximately 2.7 miles, where it connects to Segment R of the Coyote Creek Bikeway at La Mirada Boulevard in the City of Buena Park.

Project Objectives

Areas along the OC Loop corridor that are open for bicycle traffic are in poor condition and the bikeway surface is not marked clearly. Bicycle traffic at the junction of the Coyote Creek Bikeway and the San Gabriel River Bikeway does not continue along the Coyote Creek Bikeway (Stantec Consulting Services Inc., 2015, p. 40). In some areas, the bikeway is improved on one bank, while in other areas it is improved on both sides. Bicyclists can find themselves at the end of a bikeway facing a heavily used arterial highway with a high speed limit. In addition, there may be no traffic signals to facilitate crossing, a raised median may prohibit crossing, and no suitable way to use the roadway bridge to ride across the creek to reach the bikeway on the opposite bank (Stantec Consulting Services Inc., 2015, pp. 40-41).

Once constructed, the proposed project would close an existing bikeway gap along the OC Loop with a Class I bikeway/path physically separated from vehicular traffic. As an alternative mode of transportation, the proposed project would also increase the use of active transportation travel modes, enhance safety and mobility for non-motorized users, advance efforts to achieve greenhouse gas reduction goals, improve access and maintenance to the flood control channel, and enhance public health. In addition, the proposed project is a safety and mobility enhancement for the County of Orange, and is included in the 2008 Coyote Creek Bikeway Master Plan (Rivers and Mountains Conservancy and Trails4All), 2009 OCTA Commuter Bikeway Strategic Plan, 2012 OCTA/County of Orange Fourth District Bikeways Strategy Report, 2014 County of Orange General Plan Transportation Element (as part of the Orange County Seven-Year Plan), and the 2015 OC Loop Gap Feasibility Study (OC Parks).

The proposed project has the following objectives:

- To further establish the OC Loop as a significant regional recreational and alternative transportation facility resource.
- To facilitate increases in the public's use of active transportation travel modes.
- To enhance the safety and mobility for non-motorized users.
- To advance efforts to achieve greenhouse gas reduction goals.
- To improve the maintenance of, and access to, the flood control channel.
- To enhance public health via the facilitation of increased public use of active transportation travel modes.
- To serve as a viable contributor to County policies and physical improvements designed to promote safety and mobility enhancement.
- To accurately serve its stated purpose in various adopted County/OCTA policy and planning documents including the 2008 Coyote Creek Bikeway Master Plan (Rivers and Mountains Conservancy and Trails4All), 2009 OCTA Commuter Bikeway Strategic Plan, 2012 OCTA/County of Orange Fourth District Bikeways Strategy Report, 2014 County of Orange General Plan, and the 2015 OC Loop Gap Feasibility Study.

Project Characteristics

The proposed project is divided into three Segments (O, P, and Q) of the overall OC Loop (see HPSR Attachment A, Map 3.) From south to north, OC Loop Segment O extends northeasterly from the point of origin near the north fork of the Coyote Creek flood control channel to Artesia Boulevard. OC Loop Segment P extends northerly from Artesia Boulevard to Knott Avenue, while OC Loop Segment Q extends northerly from Knott Avenue to the terminus of the proposed project at La Mirada Boulevard.

Following are summary descriptions of the main improvements planned as part of the proposed project, presented on a segment-by-segment basis. A number of utility crossings would be necessary to accommodate the proposed project. Existing flood control maintenance road ramps from the flood control channel to existing roadways would be improved for bicycle access as well. Chain link or wire fencing would be provided where safety dictates, on one or both sides of the bikeway.

Summary of Segment O Improvements

Location

Segment O is the southernmost portion of the project area and is located within the cities of Cerritos and Buena Park. Segment O begins at the existing Coyote Creek Bikeway at the confluence of the channel's east and north forks. The segment runs east-northeast for approximately 4,800 feet, or 0.91 mile, along the east fork of the Coyote Creek Channel to Artesia Boulevard.

Pedestrian/Cyclist Bridge

At Station 10+00, at the confluence of the north and east forks of the flood control channel, a 200-foot-long and 12-foot-wide pre-fabricated truss bridge would be installed across Coyote Creek at the north fork. Approximately four 18-wheeled flatbed trucks would deliver the bridge in several sections and workers would bolt the bridge together onsite. The pre-fabricated bridge would be bolted together on the floor of the concrete flood control channel. It is estimated to take about two

days to assemble the bridge onsite. Reinforced concrete end bents would be constructed (cast in place) prior to delivery of the bridge. The bridge would be lifted and placed on the end bents by two large cranes. Only pedestrians and cyclists would use the bridge, as it would not be rated for the weight of motor vehicles. The bridge would be steel and designed to have a rust patina ("weathered steel" look), to eliminate the need for future painting. The deck of the pedestrian bridge would be wood.

Approximately 1,570 linear feet of 12- to 16-foot-wide asphalt would be placed upstream of the pre-fabricated bridge to Valley View Avenue. About 1,750 cubic feet of asphaltic concrete used for the existing maintenance road would be removed and recycled before any new asphalt paving would be placed. The new asphalt would be approximately four inches thick over six inches of crushed aggregate base. Fencing, such as a five-foot-high chain link fence or four-foot tall cable fence with six strands of cable may be installed on one or both sides. The fencing may be installed along the entire 2.7 miles of new bike trail if necessary. The location of the fencing (either on one or both sides of the bike trail) would be determined later in the design process.

Valley View Avenue Undercrossing

The next feature of Segment O would be an undercrossing of Valley View Avenue that would be constructed into the side of the existing sloped bank of the concrete flood control channel. The existing concrete slope under the Valley View Bridge would be removed and steepened to near vertical to accommodate the new 12-foot-wide trail undercrossing. A tieback wall would be installed under the bridge and the construction would be located above the existing outfalls. Upstream of the Valley View undercrossing to Artesia Boulevard, approximately 3,010 feet of 14- to 16- foot-wide asphalt paving would be placed adjacent to the flood control channel.

Artesia Boulevard Tunnel

The bikeway will exit the flood control channel bank and pass through a 12 x 10-foot precast reinforced concrete box culvert under Artesia Boulevard on the west side of the channel and around the road bridge over the channel, returning to the bank on the north side of the bridge.

Summary of Segment P Improvements

Location

Segment P is located generally within the City of La Mirada in Los Angeles County and runs parallel to the north side of the Coyote Creek channel from the Artesia Boulevard undercrossing to Knott Avenue. It is approximately 3,000 feet long (equivalent to 0.57 mile) and crosses under the Interstate 5 (I-5) freeway, its frontage roads (South and North Firestone Boulevard), and the Union Pacific Railroad (UPRR) industrial lead. It includes 1,085 linear feet of new 14- to 16-foot-wide asphalt trail.

Undercrossing at Artesia Boulevard

Segment P begins at the Artesia Boulevard undercrossing via a tunnel under the road., The existing concrete bridge abutment wall will act as the new flood control wall. Upstream from the Artesia Boulevard undercrossing would be about 1,200 feet of new 12- to 16-foot-wide asphalt paving.

Union Pacific Railroad Spur Line Overcrossing

The next feature in Segment P would be a 1,200-foot-long, 35-foot high pedestrian/cyclist truss bridge overcrossing at the UPRR spur line overcrossing, with a switchback on the northern approach (upstream) to maintain a maximum grade of five percent. Upstream from the UPRR overcrossing to the South Firestone Boulevard undercrossing, the bikeway elevation remains at the top of the channel.

On the downstream side of this crossing are two abandoned fuel lines, a U.S. Navy jet fuel line and a Kinder Morgan oil pipeline. The project would cut, cap and remove the Kinder Morgan fuel pipeline and the Navy jet fuel line.

South Firestone Boulevard Undercrossing

The project proposes an open cut of South Firestone Boulevard west of Coyote Creek and the installation of a 12-foot-wide by 9-foot-tall precast concrete box. The box under South Firestone Boulevard would be completed by closing the road for approximately three weeks. A detour can be provided for each direction since South Firestone Boulevard has access on both ends. There are no residences within 2,400 feet of this site (the nearest residence is approximately 2,400 feet east of the site at the westerly end of the Kensington Drive cul-de-sac). After the concrete box has been installed, it would be covered with road base and paved to its original elevation.

I-5 and North Firestone Boulevard Undercrossing

The 1-5 and North Firestone Boulevard undercrossing would be located upstream, northeast, of South Firestone Boulevard in the city of La Mirada. The I-5 Widening Project, which is separate from the proposed project, provides sufficient width for the tunnel between two bridge abutments at both the I-5 and North Firestone Boulevard. This section under the 1-5 and North Firestone Boulevard would need to be excavated to accommodate the proposed 12-foot-wide bike trail. Upstream of the l-5 and North Firestone Boulevard, the trail would continue adjacent to the top of the flood control channel. Approximately 1,550 linear feet of 14- to 16-foot wide asphalt trail would be placed between North Firestone Boulevard and Knott Avenue.

Summary of Segment Q Improvements

Location

Segment Q begins in the city of Buena Park, extends northwest into the city of La Mirada and ends in the city of Buena Park. More specifically, Segment Q extends from Knott Avenue to Stage Road and ends at La Mirada Boulevard in Buena Park and is approximately one mile long. It crosses a Burlington Northern Santa Fe Railway Company (BNSF) industrial lead, the heavily used Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor, and Stage Road before ending at La Mirada Boulevard.

Knott Avenue at-Grade Crossing

The first component of Segment Q would be a signalized at-grade crossing at Knott Avenue. Traffic signals with push-button activation and crosswalk striping would be installed. Approximately 420 linear feet of 12- to 14-foot-wide asphalt trail would be installed upstream of Knott Avenue.

Below-Grade Crossing of BNSF Railway Lead

Additionally, upstream of Knott Avenue (downstream of the confluence of Coyote Creek and Brea Creek) would be a below-grade crossing of a railroad industrial lead that serves only a few customers. A 12 x 12-foot reinforced concrete box culvert will be installed here. The installation will be accomplished through an open cut and would result in reconstruction of storm drains around the excavation site and an outfall to the Coyote Creek Channel. As part of the undertaking, the spur will be decommissioned due to its infrequent use. Upstream of this railroad crossing would be approximately 2,900 feet of 14- to 16-foot-wide new asphalt pavement along the Coyote Creek flood control channel.

Overcrossing of the BNSF/Metrolink Railway Line and Stage Road Bridge

The next feature in Segment Q would be a continuous overcrossing over both the three-track railroad corridor and the five-lane street. The overcrossing would also carry the bike path from the west side of the Coyote Creek Channel to the east bank to the north of Stage Road. Approximately 2,000 feet of bridge construction is required for this overcrossing. Upstream from Stage Road would be about 675 feet of new 12- to 16-foot-wide asphalt paving along the right (east) bank of Coyote Creek.

Various utility lines are located in this area. On the downstream side of the existing bridge there is a Chevron fuel line. On the upstream side of the bridge are telecommunication lines in a concrete box girder conduit, but the fuel line and the telecommunication lines. The project would cut, cap and remove the Chevron Oil fuel pipeline. A conflict with utilities would be avoided by relocating the abandoned Chevron Oil fuel line and going under the AT&T conduit (which is supported above ground).

A vacant triangular 0.5-acre parcel owned by the Los Angeles County Flood Control District is located on the downstream side of the Metrolink line and could be used for construction staging.

La Mirada Boulevard Detour

The new and existing bike trail would be connected by directing cyclists onto La Mirada Boulevard and constructing a new 12-foot wide asphalt Class I trail on both sides of La Mirada Boulevard for a distance of 280 feet (on each side) where bicyclists could cross via an existing signalized intersection at the entrance of the Los Coyotes Shopping Center. Several ornamental trees would be removed and minor grading would be conducted to install the new Class I trail. The existing sidewalks for this 280-foot reach of La Mirada Boulevard would be included in the Class I trail.

Improvements at La Mirada Boulevard/Malvern Avenue

Along the north side and south side of La Mirada Boulevard between the Coyote Creek Channel and the shopping center driveway at Village Circle Way, the contractor will “clear & grub” from the back

of curb to the privacy wall on the north side and from the back/curb to the retaining wall along the south side. Any surface-evident utilities will remain in place and a 10-foot-wide combined pedestrian/Class I bikeway would be constructed on both sides. Approximately 19 feet (or less) of permanent easement is required.

Landscaping

Other than an existing 280-foot-long by about 20-foot-wide strip of landscaping on both sides of La Mirada Boulevard, no other existing landscaping would be removed. No new or replacement landscaping is proposed as part of this project. Signage and maps would be installed along the trail to direct users.

Stormwater

A Water Quality Management Plan (WQMP) that may include constructed stormwater quality enhancements will be prepared as a part of this project. The project would add impervious area. Storm drain pipes would be placed at the lowest elevation of undercrossings to allow storm water to drain into the adjacent channel. Bioswales for water quality treatment would be employed at the downstream sides of both railroad undercrossings.

Lighting

Other than for about 200 feet of bikeway under North and South Firestone Boulevard and the I-5, the project does not propose any trail lighting. Additionally, light would be produced from signals (such as traffic signals) along the project alignment.

Signage

Only standard and minimal bike signage and location maps conforming to OC Parks signage codes and criteria are required.

Bike Path

Where the bike path is at grade, the path would be asphalt and be 14 to 16 feet wide inclusive of the two-foot shoulders on each side, wherever a chain link fence or cable railing is added for safety. Where the bike path would travel beneath grade, the bike path surface would be concrete and 10 to 14 feet wide with no shoulders.

Project Construction

Construction is anticipated to take between 18 months and two years and occur sometime between January 2023 and December 2024. Construction would occur in one stage. Construction workers would be able to park within the Coyote Creek right-of-way via the street crossings (Valley View, Artesia, Firestone, Stage Road). South Firestone Boulevard would be closed for approximately three weeks to install the precast box culvert for the bikeway.

Depending upon funding, project construction would occur in one, two or three phases; for example, the three segments (O, P, and Q) could be done one at a time. The project includes three contiguous

gap closure segments; O, P, and Q. Because of the significant cost of the project overall and the need for state/federal grant funds to move forward, it is possible that grant funds will come in separate years for separate segments. The State has indicated that the County should simultaneously submit grant requests for the entire project and for each of the three segments separately for their next grant cycle. Therefore, the project may be done in two or three phases in different fiscal years, depending upon annual grant funding cycles. In general, construction phases could include:

- Demolition.
- Grading and excavation.
- Installing prefabricated bridges, with supporting walls and columns, over both railroads.
- Placing concrete and asphalt.
- Final items (striping, signage, etc.).

It is anticipated that an average of about 20 construction employees would be onsite over 24 months.

Several utilities would be protected in place and the abandoned fuel lines mentioned previously on the downstream sides of the two railroad overcrossings would be cut, capped and removed. A power pole in the northwest quadrant at South Firestone Boulevard would require relocating. This pole supports a Southern California Edison power line and communications lines that would require relocating.

Construction Equipment

Proposed equipment anticipated to be used during project construction includes, but is not limited to, the following:

- Grading equipment for preparing the bike path for paving.
- Excavation equipment (concrete saws, bulldozers, excavators, dump trucks) for going under Valley View Avenue, Artesia Boulevard, North and South Firestone Boulevard, and the I-5.
- Drilling rigs for end bents for the pedestrian bridge over the north fork of Coyote Creek, the tieback wall at Valley View Avenue, the piles for the bike path foundation slab under Artesia Boulevard and the temporary shoring walls at both railroad undercrossings.
- Flatbed trucks and cranes for installing the steel prefabricated pedestrian bridges.
- Asphalt paving equipment for installing the bike path surface where the bikeway is at grade.
- Concrete trucks for pouring the end bents for the pedestrian bridge over the north fork of Coyote Creek, and concrete walls on either side of the railroad undercrossings.
- Two cranes to install the two prefabricated bridges, with a period of use of approximately two weeks for each bridge.

Construction Staging

Construction staging would involve detouring traffic for the closure of South Firestone Boulevard for installation of the RCB. A vacant triangular 0.5-acre parcel owned by the Los Angeles County Flood Control District is located on the downstream side of the Metrolink line and could be used for construction staging. Also, a 0.44 acre strip of larger parcel located on the upstream side of the BNSF bridge on the west side of the bank also owned by the LACFCD (APN 7003-009-909) will be used

as permanent easement for an access/maintenance road, and another 0.05 acre strip of this parcel will be a temporary construction easement.

Easements

The project would include the following permanent easements:

- Along the north side and south side of La Mirada Boulevard between the Coyote Creek Channel and the shopping center driveway at Village Circle Way, the contractor will "clear & grub" from the back of curb to the privacy wall on the north side and from the back/curb to the retaining wall along the south side. Any surface-evident utilities will remain in place and a 10-foot-wide combined pedestrian/Class I bikeway would be constructed on both sides. Approximately 19 feet (or less) of permanent easement is required.

- A permanent driveway easement for access to the Flood Control Channel at Trojan Way may be required. The Los Angeles County Flood Control District maintenance access driveway that Caltrans constructed needs to be reconnected after the bike path is constructed. However, because of the difference in grade between the access driveway and the proposed bikeway, this reconstructed driveway may be as steep as 15 percent. Therefore, if the grade cannot be achieved, then a permanent access easement would need to be obtained from the property owner so that the Los Angeles Flood Control District could use the property owner's driveway to access the flood control channel when needed.

Discretionary Actions

Discretionary actions required for the implementation of the proposed project are provided in the table below.

Federal	
Agency	**Required Permit and/or Agreements**
U.S. Army Corps of Engineers (USACE)	• 408 Authorization to Alter a "Civil Works" project • 404 Dredge and Fill permit
State	
Agency	**Required Permit and/or Agreements**
Caltrans	• Construction and Encroachment permit
California Department of Fish and Wildlife (CDFW)	• 1602 Streambed Alteration Agreement
California Public Utilities Commission (CPUC)	• Approval of GO-88b permits at all three railroad crossings
Metrolink/Southern California Regional Rail Authority (SCRRA)	• Plan specification and estimate (PS&E) review and approval
State Water Resources Control Board (SWRCB)	• 401 Water Quality Certification
Regional	
Agency	**Required Permit and/or Agreements**
Los Angeles County Flood Control District (LACFCD)	• Construction and Encroachment permit
Orange County Flood Control District (OCFD)	• Construction and Encroachment permit
Los Angeles Regional Water Quality Control Board (LARWQCB)	• 401 Water Quality Certification

Santa Ana Regional Water Quality Control Board (SARWQCB)	• 401 Water Quality Certification
Local	
Agency	**Required Permit and/or Agreements**
Orange County Public Works	• Construction permit
City of Cerritos	• Construction and Encroachment permit
City of Buena Park	• Construction and Encroachment permit
City of La Mirada	• Construction and Encroachment permit
Railroads and Utilities	
Agency	**Required Permit and/or Agreements**
Union Pacific (UP) Railroad and California Public Utilities Commission	• CPUC new grade crossing permits and Construction & Maintenance (C&M) Agreements
Burlington Northern and Santa Fe (BNSF) Railway and California Public Utilities Commission	• CPUC new grade crossing permits and Construction & Maintenance (C&M) Agreements • Plan specification and estimate (PS&E) review and approval
Chevron	• Agreement for Removal
Kinder-Morgan & U.S. Navy	• Agreement for Removal

Construction activities will be confined within the existing rights-of-way, and easement into the private lands in Segment Q to the north at La Mirada Boulevard (APN 066-601-64, 066-561-09 and 066-584-04) and to the south at Trojan Way (APN 700-101-4034 and 700-101-5017) (see HPSR Attachment A, Map 3), staging/storage area, temporary access, or borrow/disposal site will be required. The undertaking will not realign or widen any roadways. There will be tree removals along La Mirada Boulevard. The undertaking will not cause automobile traffic to be closer in proximity to nearby properties or increase automobile traffic volume.

The vertical extent of ground disturbance during the undertaking is not expected to exceed 18.5 feet in depth – excavation to 18.5 feet will be conducted for placement of concrete box culverts at the Artesia Boulevard tunnel undercrossing and the BNSF spur line crossing, while excavation for placement of fence poles and wall foundations will not exceed two feet. There will be above-ground utility infrastructure removals, in the form of abandoned fuel lines that cross the Channel, would be cut, capped and removed, and a power pole in the northwest quadrant at South Firestone Boulevard would require relocating.

The Area of Potential Effects (APE) project area comprises approximately 15.17 acres in total, including two parcels of privately-owned commercial and industrial properties adjacent to the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway rights-of-way (see HPSR Attachment A, Map 3). The Study Area for this ASR covered the 5.11 acres that will be subject to ground disturbances during the new bike trail construction, which lies within the existing rights-of-way, LACDFC parcel and two private parcels for the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway (see HPSR Attachment A, Map 3). The total additional APE with the design changes is 2.5 acres, and the area of permanent disturbance is an additional 1.4 acres.

The OC Loop Segments O, P, and Q Coyote Creek Bikeway Project is located in an urban mixed industrial, commercial and low-density residential setting in the cities of Buena Park La Mirada, and Cerritos within a portion of the Los Coyotes land grant in what would be Sections 26, 27, 33 and 34 of T3S R11W, San Bernardino Baseline and Meridian on the *La Habra*, *Los Alamitos* and *Whittier,*

Calif. USGS quadrangle topographic maps (see HPSR Attachment A, Maps 1 and 2). The entire Study Area for the ASR consists of extensively disturbed public rights-of-way, and is mostly exposed soil with a deteriorated asphalt access road. Land use along the OC Loop Segments O, P, and Q Coyote Creek Bikeway features a mixture of commercial, light industry and some residential (see HPSR Attachment A, Map 3).

SOURCES CONSULTED

SUMMARY OF METHODS AND RESULTS

A cultural resource records search was conducted on February 18, 2020, at the South Central Coastal Information Center (SCCIC), California State University, Fullerton, to assess the extent of previous survey coverage and identify known historical/archaeological resources in the vicinity of the APE. A standard half-mile radius was adopted for the records search, and the following sources were consulted:

- National Register of Historic Places;
- California Register of Historical Resources;
- California Historical Landmarks;
- California Points of Historical Interests;
- California Historical Resources Inventory.

The results of the records search indicate that within a half-mile radius of the APE indicated that four cultural resources have been recorded. Within the half-mile buffer zone, there have been four recorded historic-era cultural resources, one of which includes possible paleontological resources. Table 1 summarizes the resources found within the half-mile buffer zone and within the project site boundary.

Within the half-mile buffer zone surround the APE there is the KFI Transmitter Building (19-187549). The transmitted building was constructed in 1931 which housed the original 50-kilowatt transmitter (an RCA 50B) which serve until 1959 when a new transmitter was installed (a Continental 317B) was installed (Hudlow 2006). The transmitted building is a two-story, flat roofed, rectangular building with access via a one-story round turret in the northwest corner. The KFI Transmitter Building is located 375 feet north of the Coyote Creek Channel. Also, within the buffer zone abut outside the APE is the site of two privies and historic trash pits associated with the Northam Railroad Station (30-120020). The site record states that the "remains extend in time from the late 1800's to 1962" (anon., n.d.), presumably when the station was removed. Current aerial photos indicate there is no longer a structure at the mapped location along Tulare Street which is now a housing development. The site of the historic privies is located approximately 1,050 feet southeast of the Coyote Creek Channel.

Within the APE there are two historic cultural resources, segments of the Union Pacific Railroad (also known as the Southern Pacific Railroad) and the Burlington Northern Santa Fe (BNSF) Railway (formerly the Atchison, Topeka and Santa Fe). These segments run southeast to northwest across the Los Angeles and Orange County border, resulting in both a Los Angeles and Orange County site number. The project site is located along the border with the Union Pacific Railroad (19-186110/30-176630) intersecting Segment P and the Burlington Northern Santa Fe Railway (19-186804/30-176663) intersecting Segment Q (Ashkar, 1999; Ballester and Tang, 2002).

The Union Pacific Railroad site (19-186110/30-176630) intersects Segment P in Los Angeles County. This segment of the Union Pacific Railroad was evaluated and determined to be eligible for the National Register of Historic Places (NRHP) listing under Criteria A and B (Ashkar 1999:2). It was not formally assessed for eligibility under the California Register of Historical Resources (CRHR) (Ashkar, 1999).

The Burlington Northern Santa Fe Railway (19-186804/30-176663) intersects Segment Q in Orange County. This segment of the BNSF Railroad was evaluated for the NRHP and the CRHR and determined to not meet the criteria to qualify due to loss of historical integrity (Ballester and Tang 2002:3).

As a part of this HPSR study, a portion of the Coyote Creek Channel was recorded as an historic site; it was evaluated for the NRHP and was found to be not eligible. In addition, a set of five single family residences to the north of Stage Road and west of the Coyote Creek Channel (7724, 7728, 7732, 7736 and 7740 Granada Drive) and a single such residence south of the BNSF bridge and east of the Chanel (5501 Western Avenue) were recorded as historic properties and evaluated for the NRHP and were found to not be eligible. See the accompanying Historic Resources Evaluation Report Attachment C.

Table 1. Previously Recorded Cultural Resources within the Scope of the Records Search

Resource Number	Author/Date Recorded	Resource Description/Proximity to the Project Location
19-186110/30-176630	S. Ashkar	Segment of the Union Pacific Railroad.
19-186804/30-176663	Daniel Ballester and Bai "Tom" Tang	Segment of the Burlington Northern Santa Fe Railway
19-187549	Scott M. Hudlow	Historic two-story KFI transmitter building.
30-120020	Unknown	Two privies, historic trash pits, and possible segments of the La Habra fossil bearing soil.

Within a half-mile radius of the Study Area, SCCIC records indicated 20 cultural resources studies within a half-mile buffer of the project site (Table 2). Ten of these studies are located outside of the project boundary while ten of them, LA-07871/OR-03298, LA-03356/OR-00814, LA-07844/OR-03276, LA-08255/OR-03373, and LA-04834/OR-02094, intersected the project site itself. The ten studies within the project site concerned potential placement of wireless facilities, Metrolink improvements, or I-5 Santa Ana Freeway improvements and had linear study areas. These study areas intersect Segments P and Q along the Los Angeles County and Orange County border, resulting in both Los Angeles County and Orange County report numbers for each study.

Table 2. Previous Cultural Resources Studies within the Scope of the Records Search

Report Number	Author/Date	Report Title
LA-03356/OR-00814	Romani, John F.; 1982	Archaeological Survey Report for the Route I-5 Santa Ana Transportation Corridor Route 405 in Orange County to Route 605 in Los Angeles County P.m. 21.30/44.38 0.00/6.385
LA-03371	Maki, Mary K.; 1996	Negative Phase I Archaeological Survey of 3.4 Acres West of Trojan Way Street from Desman Road to Firestone Boulevard, City of La Mirada, Los Angeles County, California

Table 2. Previous Cultural Resources Studies within the Scope of the Records Search		
Report Number	**Author/Date**	**Report Title**
LA-04152	Mason, Roger D. and Wayne H. Bonner; 1998	Cultural Resources Records Search and Survey Report for a Pacific Bell Mobile Services Telecommunications Facility: La-316-03 City of La Mirada, California
LA-04834/OR-02094	Ashkar, Shahira; 1999	Cultural Resources Inventory Report for Williams Communications, Inc. Proposed Fiber Optic Cable System Installation Project, Los Angeles to Anaheim, Los Angeles and Orange Counties
LA-05199	Duke, Curt; 2001	Cultural Resource Assessment Cingular Wireless Facility No. Sm 083-02 Los Angeles County, Ca
LA-06174	Duke, Curt;2001	Cultural Resource Assessment Cingular Wireless Facility No. Sm 083-02 Los Angeles County, Ca
LA-07730	Hudlow, Scott M.; 2006	A Phase I Cultural Resources Survey for KFI Tower Project, City of La Mirada, California
LA-07844/OR-03276	Kane, Diane; 1998	Historic Architectural Survey Report for I-5 HOV Lane Improvement Project
LA-07871/OR-03298	Tang, Bai "Tom" and Teresa Woodard; 2003	Historical Resource Compliance Report – Third Main Track and Grade Separation Project Hobart (mp 148.9) to Basta (mp 163.3), BNSF/Metrolink East-west Main Line Railroad Track, Vernon to Fullerton, Los Angeles and Orange Counties, California
LA-08255/OR-03373	Arrington, Cindy and Nancy Sikes; 2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and II
LA-09117	Bonner, Wayne H.; 2007	Cultural Resources Records Search and Site Visit Results for Royal Street Communications, LLC Candidate LA0858D (Messe, Inc.), 16404 Knott Avenue, La Mirada, Los Angeles County, California
LA-11498	Meyer, Donna; 2011	Section 106 Consultation for Installation of Communications Equipment for Integrated Public Alert and Warning System, La Mirada, Los Angeles County
OR-00121	Desautels, Roger J.; 1976	Archaeological Survey Report on a Parcel of Land Located in the City of La Palma, Orange County
OR-00424	Desautels, Roger J., 1979	Cultural Resources Report on an Archaeological, Historical and Paleontological Records Search and Survey of Approximately 3 Acres of Property Located in Buena Park, California
OR-01671	Mason, Roger D.; 1997	Cultural Resources Record Search and Literature Review Report for a Pacific Bell Mobile Services Telecommunications Facility Cm 085-04, in the City of La Palma, California
OR-02608	Duke, Curt; 2003	Cultural Resource Assessment Cingular Wireless Facility No. Cm 085-04 Orange County, California
OR-02609	Duke, Curt; 2003	Request for SHPO Review of FCC Undertaking 5600 Fresca Dr., La Palma, California
OR-02793	Bonner, Wayne H.; 2001	Records Search Results for Sprint PCS Facility OG54XC458A (Gordon Square Shopping Center), 5301 Beach Blvd., Buena Park, Orange County, California
OR-02806	Duke, Curt; 2002	Cultural Resource Assessment AT&T Wireless Services Facility No. 13018a Orange County, California
OR-03045	Demcak, Carol R; 2005.	Report of Archaeological Assessment for Beach Boulevard/Malvern Avenue Intersection Improvement, City of Buena Park, California

SUMMARY OF ADDITIONAL RESEARCH

In conjunction with the records search, a historical background review was conducted on the basis of published literature in local history, historic maps and aerial photographs, and flood control records of the Orange County Flood Control District. Through analysis of these materials, historical themes

emerge and establish a context specific to the APE and vicinity that in turn can be placed within comprehensive generalizations in broader trends and events in the region, state, and nation.

Geoarchaeological analysis for this ASR was based on existing literature on surface geology and soil types in the vicinity and pertinent geological and soil maps. The purpose of the analysis was to assess the potential of the Study Area for the deposition and preservation of subsurface cultural deposits from the prehistoric period, which cannot be detected through a standard archaeological survey. Findings from the historical and geoarchaeological researches are incorporated into the discussion in the "Background" section below.

SUMMARY OF NATIVE AMERICAN CONSULTATION

The Native American consultation was presented in the original HPSR for this undertaking (see 2020 HPSR Attachment E).

SUMMARY OF CONSULTATION WITH LOCAL COMMUNITIES

As a part of the research procedures, local historical/archaeological organizations and city government staff in each community along the APE were consulted regarding potential cultural resources of local significance in or near the APE (see HPSR Attachment D). In total, three cities and four local historical organizations were contacted by e-mail and telephone between April 21 and October 15, 2020. As of this supplemental report preparation in August 2021, no responses have been received. Those contacted include:

- City of Buena Park Planning Division Supervisor of Planning Brady Woods.
- City of La Mirada Director of Community Development Department Gabriel Bautista.
- Orange County Historical Society, which informs callers by voice message that due to COVID-19 the group has canceled or postponed all monthly meetings and events until further notice.
- Buena Park Historical Society. There has been no response to the e-mail sent or to voice messages left.
- Discover La Mirada/ La Mirada Community Foundation. City of La Mirada liaison for the Foundation, Latecia Raville, requested the e-mailed letter of inquiry be sent to her, which was done immediately after telephone contact. No further response has been received as of this report preparation in July 2020.
- Cerritos Public Library Local History Room. A voice message was left; however, the library's voice recording indicates the library is closed until May 15, 2020; no further response has been received as of this supplemental report preparation in August 2021.

As a part of the research procedures, the Planning Division of the City of Buena Park Community Development Department and the Buena Park Historical Society were contacted by electronic mail and by telephone between August 4 and August 12, 2021, for information or comments regarding potential local historical interest in the single family residence buildings under evaluation. On August 9, Swati Meshram, the City's Planning Manager, stated by telephone that she would review the materials and respond further if she had any information or concerns to share. No further response from Ms. Meshram has been received to date, nor has any response been received from the historical society (see Supplemental HRER Attachment D).

BACKGROUND

The environmental and historical background overview of the entire APE was presented in the original HPSR for this undertaking (see 2020 HPSR Attachments C and D).

FIELD METHODS

A pedestrian survey was conducted along the proposed alignment (see HPSR Attachment A, Map 2 and Map 3) on February 6, 2020, with a supplemental field survey on August 14, 2021, by Mr. Stephen O'Neil. The survey consisted of walking, visually inspecting, and photographing the exposed ground surface and landscaped areas of the project site using standard archaeological procedures and techniques. Access to the channel is limited to gates at several of the road crossings, which are generally locked. On the day the cultural resources survey was conducted, Mr. Camden Cabrinha and his crew were conducting their engineering survey of portions of the channel for the OC Loop Project along the entire project length and provided gate access at several points.

Survey of the ground surface was conducted in a linear and opportunistic manner; walking transects over the north and west channel embankment above the channel itself. The embankment ranged from approximately 20 to 60 feet wide with an asphalt road approximately ten feet wide along the channel-side edge. The asphalt road was occasionally well maintained, but frequently was not and was more gravely in constitution. There was a boundary chain-link fence along the entire boundary line on the north/west side. The embankment from the road to the fence was sometimes level, and occasionally sloped up to the fence, and ranged from ten feet to 55 feet away from the road. This open area was consistently devoid of vegetation.

The survey started at the southern end of Segment O (see HPSR Attachment A, Map 2, western red portion), where the main Coyote Creek Channel is joined by the North Fork – Coyote Creek. A pedestrian bridge would be built across the North Fork to the main channel side (Figure 1). The west side of the channel was walked northward, observing commercial buildings adjacent to the embankment up to the Valley View Avenue bridge crossing the channel (Figure 2) where there would be a bicycle trail undercrossing. Markings on this bridge provided its Caltrans identification number B1658. The transect was continued eastward. Structures lining the channel boundary between Valley View Avenue and the end of Segment O at Artesia Boulevard are industrial and commercial businesses, including large warehouse structures (Figure 3) on both sides of the creek.

The Artesia Boulevard bridge (Figure 4), south end of Segment P (see HPSR Attachment A, Map 2**, central green portion**), would have a bicycle trail undercrossing. Markings on this bridge provided its Caltrans identification number 3145. While continuing the survey transect along the narrow, concrete walkway under the bridge, a small encampment (representing one or two residents) was observed (Figure 5). Because of the revised design which now places a tunnel under Artesia Boulevard just to the west of the Coyote Creek Channel, the channel access road ramp up to Artesia Boulevard on the south and north ends was survey on August 14, 2021.

The original transect was continued northeastward along the channel embankment until it reached an oil pipeline crossing and an adjacent railroad bridge crossing, both of which block transit along the channel embankment (Figure 6 and Figure 7). At this point there would be a bicycle trail undercrossing; however, at present there is no flat embankment between the pipeline and railroad, and one has to go up to the railroad crossing level and cross the railroad tracks, and then go back down to the level of the embankment on the north side (railroad bridges had no Caltrans identification number). Walking over this railroad crossing, a medium-sized encampment of approximately five makeshift lodging structures was observed at the northern corner of the crossing (Figure 8); no one appeared to be home at the time.

Within approximately 425 feet to the north of the railroad bridge the S. Firestone Boulevard bridge crosses the Coyote Creek Channel (Figure 9). The road lies adjacent to the Santa Ana/I-5 Freeway, with N. Firestone Boulevard adjacent to the freeway on the north side. These three bridges would have a single bicycle trail undercrossing them all.

Because of the revised design which now places a bridge over the UPRR bridge on the west side of the Coyote Creek Channel, plus the added permanent easement of LACFCD lands for an access/maintenance road and the temporary construction easement in the same west-side parcel, this area between the UPRR bridge of South Firestone Boulevard was surveyed again on August 14, 2021. The encampment observed at the north side of the railroad crossing in February 2020 was now gone; however, a new medium-size encampment of approximately seven makeshift structures and tents was observed in the LACFCD parcel along the west edge of the channel fence as well as on the channel bank itself (Figure 10).

Markings on the S. Firestone Boulevard bridge indicate that it was built in 1950, and provided its Caltrans identification number B1011. Due to active construction on the interface between the S. Firestone Boulevard bridge and the I-5 Freeway (Figure 11), it was not possible to continue the survey along the channel embankment below these three bridges or to look for markings indicating the year of construction or designation for the freeway bridge.

Starting at the southeast corner of N. Firestone Boulevard and Trojan Way, there is access to the channel embankment which now turns eastward. Along both sides of the channel boundary fence there are industrial buildings, including warehouses (Figure 12). Section P continues east to the Knott Avenue bridge crossing the channel (Figure 13). At this point the bicycle trail would proceed up to street level where it would cross Knott Avenue on the north side of the bridge and then go back down to the level of the embankment on the east side. Markings on this bridge provided its Caltrans identification number B1657.

The pedestrian survey continued on to Segment Q (see HPSR Attachment A, Map 2**, eastern purple portion**), which starts at the Knott Avenue bridge. Beyond Knott Avenue within approximately 425 feet there is a small BNSF spur railroad line that crosses the channel (Figure 14). At this point the bicycle trail would proceed up to street elevation where it would cross the railroad bridge on the north side of the bridge and then go back down to the level of the embankment on the east side. (This at-grade crossing has since been redesigned as an undercrossing.) The survey continued along the west channel embankment as the channel turns to the northeast. In this area, while commercial buildings still line the west side of the channel fencing, there were single-family residences on the east side of the channel (Figure 15). The BNSF mainline, or Metrolink line, bridge crosses the channel on this stretch (Figure 16) where the bicycle trail would use an undercrossing; at this point on the east side of the channel there is a single large commercial building. Approximately 450 feet to the north of the railroad bridge the channel is crossed by Stage Road (Figure 17). Just before the street bridge the bicycle trail would cross to the east side of the channel on a proposed pedestrian bridge. The trail would use an undercrossing at the Stage Road bridge and then continue on to the La Mirada Boulevard bridge over the channel (Figure 18). This undercrossing has since been redesigned as a pedestrian bridge stretching from south of this railroad bridge onward over Stage Road and extending to the east side of Coyote Creek Channel. Because of the revised location of the bridge access and the revised bike pathway on the Chanel banks, this area was resurveyed on August 14, 2021.

Between Stage Road and La Mirada Boulevard both embankments are wide with an intensively landscaped patch at the west embankment's edge of shrubs and trees probably reflecting the activity of the adjacent residential lot, and trees line the boundary on the east embankment. The Stage Road and La Mirada Boulevard bridges did not have identifiable identification numbers.

The trail would leave the channel embankment at La Mirada Boulevard, entering the sidewalk along the east-bound lane of the street. Along the sidewalk there is ornamental landscaping in a flowerbed between the street and a large retail building (Figure 19). The bike trail would cross La Mirada Boulevard at the signaled intersection for shopping centers on opposite sides of the street, and then continue on the sidewalk west to the existing bicycle trail along the Coyote Creek Channel's west embankment. This is the northern terminus of Segment Q.

The result of the pedestrian survey was negative for both historic and prehistoric cultural resources. Photographs of the project site were taken during the cultural resources survey to document the observations.



Figure 1. Start of Segment O at North-Fork of Coyote Creek Channel (View to the Northwest). (Photograph Taken on February 6, 2020.)



Figure 2. West Channel Embankment Between the North Fork and Valley View Avenue Bridge (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 3. Coyote Creek Channel Embankment Between Valley View Avenue and Artesia Boulevard (View to the East). (Photograph Taken on February 6, 2020.)



Figure 4. Artesia Boulevard Bridge (View to the East). (Photograph Taken on February 6, 2020.)



Figure 5. Homeless Encampment Under Artesia Boulevard Bridge (View to the West). (Photograph Taken on February 6, 2020.)



Figure 6. Oil Pipeline and BNSF Railroad Bridge Over the Channel in Segment P (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 7. BNSF Railroad Bridge and Oil Pipeline Over Coyote Creek Channel (View to the Southeast). (Photograph Taken on February 6, 2020.)



Figure 8. Large Homeless Encampment at BNSF Railroad Bridge, South of S. Firestone Boulevard (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 9. S. Firestone Boulevard Bridge Crossing the Channel (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 10. Homeless Encampment on LACFCD Parcel and Channel Bank South of S. Firestone Boulevard (View to the Southwest). (Photograph Taken on August 14, 2021.)



Figure 11. Construction Work Along the Channel Between S. Firestone Blvd., the Santa Ana Freeway, and N. Firestone Blvd. (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 12. West Channel Embankment with Commercial Buildings on Both Sides, North of the Santa Ana Freeway (View to the East). (Photograph Taken on February 6, 2020.)



Figure 13. Knott Avenue Bridge Over the Channel (View to the East). (Photograph Taken on February 6, 2020.)



Figure 14. BNSF Railroad Bridge over the Channel, East of Knott Avenue (View to the East). (Photograph Taken on February 6, 2020.)



Figure 15. Commercial Buildings on the West Side and Residential on the East Side of the Channel (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 16. BNSF Railroad Bridge Over the Channel South of Stage Road (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 17. Stage Road Bridge Over the Coyote Creek Channel (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 18. Landscaping on Both Sides of the Channel Embankments with La Mirada Boulevard Bridge in Background (View to the Northeast). (Photograph Taken on February 6, 2020.)



Figure 19. Ornamental Landscaping Along Proposed Bike Trail Beside La Mirada Boulevard (View to the Southeast). (Photograph Taken on February 6, 2020.)

STUDY FINDINGS AND CONCLUSIONS

The archaeological field survey produced negative results for archaeological resources, and no archaeological features or artifact deposits, either prehistoric or historic in origin, were encountered. Based on the results of the records search, tribal consultation, and the onsite field survey, it is unlikely that prehistoric cultural resources or tribal resources would be adversely affected by construction of the project. Land at the site along the Coyote Creek Channel is entirely light grey sandy alluvium which has been extensively graded, with any remaining natural banks cut-and-filled by the early 1960s to allow the complete concrete channelization of the creek along the entire length of the project boundary. However, grading activities associated with construction of the project would cause new subsurface disturbance and potentially could result in the unanticipated discovery of disturbed archaeological resources dating to the free-flow of Coyote Creek when its immediate area may have been used by Native American for resource gathering and travel. Since the undertaking is confined within the extensively disturbed rights-of-way of existing channel and access roads, and slope created by historic alluvial action, the subsurface soils within the vertical APE appear to be low in sensitivity for buried archaeological remains.

Based on these findings, the present ASR concludes that no archaeological resources will be affected by the proposed undertaking. If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted within 60 feet of the finding until a qualified archaeologist can assess the significance of the find. Additional archaeological surveys will be needed if project limits are extended beyond the present survey limits.

There are six single family residences daring from the 1940s – 1960s (late historic period) that were identified in the APE for indirect effect and evaluated in the HRER. The only other feature of historical or prehistoric origin encountered within the additional APE was the Coyote Creek (East Fork) Channel, which was found to be eligible for listing in the National Register of Historic Places (NRHP) in the original HRSR and HRER for this undertaking (see 2020 HPSR and Attachment D).

REFERENCES

Advisory Council on Historic Preservation
2000 *Protection of Historic Properties, Section 106, Step-by-Step*. http://www.achp.gov.

Anonymous
n.d. Primary Site Record 30-120020, (Two privies and historic trash pits associated with the Northam Railroad Station.) On file at the South Central Coastal Information Center, California State University, Fullerton.

Armor, Samuel
1921 History of Orange County, California: with Biographical Sketches of the Leading Men and Women of the County who Have Been Identified with its Earliest Growth and Development from the Early Days to the Present, Part 1. Historic Record Company, Los Angeles, California.

Ashkar, S.
1999 Primary Site Record 19-186110 / 30-176630, Segment of the Union Pacific Railroad. On file at the South Central Coastal Information Center, California State University, Fullerton.

Baker, Geo
1873 Map of a portion of Los Angeles County showing the Abel Stearns' ranches: La Habra, Los Coyotes, San Juan Cajon, Las Bolsas, La Bolsa Chica. Online Archive of California. https://oac.cdlib.org/ark:/13030/hb2n39p1js/?brand=oac4. Accessed March 10, 2020.

Ballester, Daniel, and Bai "Tom" Tang.
2002 Primary Site Record 19-186804 / 30-176663, Segment of the Burlington Northern Santa Fe Railroad. On file at the South Central Coastal Information Center, California State University, Fullerton.

Bandy, Marcy, and Maurice Bandy
1998 *Saddleback Ancestors: Rancho Families of Orange County, California*. Revised Edition. Orange County Genealogical Society, Orange, California.

Bean, Lowell John, and Charles R. Smith
1978 Gabrielino. In Handbook of North American Indians, William C. Sturtevant, general editor, vol. 8, *California*, edited by Robert F. Heizer, pp. 538-549. Smithsonian Institution, Washington, DC.

Brigandi, Phil
2006 *Orange County Place Names A to Z*. Sunbelt Publications, Inc., San Diego, California.

BuenaParkHistory.org
2020 History. Buena Park Historical Society. http://www.buenaparkhistory.org/wp/history/. Accessed February 24, 2020.

California Waterboards
2020 San Gabriel River Watershed. https://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/Water_Quality_and_Watersheds/san_gabriel_river_watershed/summary.shtml. Accessed February 24, 2020.

Cenovich, Marilyn
1995 The Story of Cerritos: A History in Progress. http://menu.ci.cerritos.ca.us/collections/local_history/cl_lhStory.htm. Accessed February 24, 2020.

Chamberlain, H. A.
1971 *The Picture Story of Buena Park*. Buena Park: City Council and Historical Society of Buena Park.

City of La Mirada
2020 History of La Mirada. https://www.cityoflamirada.org/about-us/history. Retrieved February 25, 2020.

Discover La Mirada
2020 La Mirada Historical Timeline. http://www.discoverlamirada.com/history/. Retrieved February 25, 2020.

Dumke, Glenn S.
1944 The Boom of the Eighties. Huntington Library, San Marino, California.

Engelhardt, Zephryn, O.F.M.
1931 San Gabriel Mission and the Beginnings of Los Angeles. Franciscan Herald Press, Chicago.

Golla, Victor
2011 *California Indian Languages*. University of California Press, Berkeley.

Howard, W. J., and L. M. Raab
1993 Olivella Grooved Rectangle Beads as Evidence of an Early Period Southern California Channel Island Interaction Sphere. *Pacific Coast Archaeological Society Quarterly* 29(3):1-11.

HMdb.org
2019 Site of Lily Creamery. The Historical Marker Database. https://www.hmdb.org/m.asp?m=49986. Accessed February 24, 2020.

Hudlow, Scott M.
2006 Primary Site Record 19-187549, KFI Transmitter Building. On file at the South Central Coastal Information Center, California State University, Fullerton.

Johnson, Bernice E.
1962 *California's Gabrielino Indians*. Southwest Museum: Los Angeles.

KCET
2020 The Other River that Defined L.A.: The San Gabriel River in the 20th Century. https://www.kcet.org/shows/departures/the-other-river-that-defined-la-the-san-gabriel-river-in-the-20th-century. Accessed February 24, 2020.

King, Chester
2017 Takic settlements listed in Franciscan Mission Registers. MS in possession of the author.

Kroeber, Alfred
1925 Handbook of the Indians of California. *Bureau of American Ethnology Bulletin* No. 78, Washington, D.C.

Los Angeles County Department of Public Works (LACDPW)
2020 Los Angeles County Flood Control District, 100 Years. https://dpw.lacounty.gov/LACFCD/web/. Accessed February 24, 2020.

McCawley, William
1996 The First Angelinos: The Gabrielino Indians of Los Angeles. Malki Museum Press, Banning, California/Ballena Press, Novato, California.

McLeod, Samuel A.
2020 Letter to Stephen O'Neil "Re: Paleontological Records Search for the proposed Orange County Loop Segments O, P and Q Project, UltraSystems Environmental Project No. 7034,

in the Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, project area." Vertebrate Paleontology Section, Natural History Museum of Los Angeles County. Dated 13 February 2020.

Merriam, C. Hart
1968 Village Names of Twelve California Mission Records. *University of California Archaeological Survey Report* 74. Berkeley.

Moratto, Michael J.
1984 *California Archaeology*. Academic Press, New York.

NETR Online
1896-1981 USGS Topographic maps of the project vicinity, prepared in 1896, 1899, 1902, 1923, 1925, 1935, 1942, 1943, 1945, 1949, 1951, 1964, 1965, 1972, 1974, and 1981. http://www.historicaerials.com. Accessed February 24, 2020.

NETR Online
1952-2016 Aerial photographs of the project vicinity, taken in taken in 1952, 1953, 1954, 1963, 1972, 1994, 2002, 2003, 2004, 2005, 2009, 2010, 2012, 2014 and 2016. http://www.historicaerials.com. Accessed February 24, 2020.

Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format*. Department of Parks and Recreation, Office of Historic Preservation: Sacramento.

1997 Instructions for Nominating Historical Resources to the California Register of Historical Resources. Office of Historic Preservation, Sacramento: California.

OrangeCounty.net
2020 City Guide-Buena Park. History of Buena Park. https://www.orangecounty.net/cities/BuenaPark_history.html. Accessed February 24, 2020.

Porcasi, Judith F.
1998 Middle Holocene Ceramic Technology on the Southern California Coast: New Evidence from Little Harbor, Santa Catalina Island. *Journal of California and Great Basin Anthropology* 20:270-284.

Saucedo, George J., H. Gary Green, Michael P. Kennedy, and Stephen P. Bezore.
2016 Geologic Map of the Long Beach 30'x60' Quadrangle, California. Accessed July 7, 2020.

Stantec Consulting Services Inc. (Stantec), 2015. OC Loop Gap Feasibility Study. March. Accessed online on January 2, 2020 at: http://www.ocparks.com/civicax/filebank/blobdload.aspx?BlobID=44087

Strawther, Larry
2012 A Brief History of Los Alamitos and Rossmoor. The History Press, Charleston, South Carolina.

VisitBuenaPark.com
2020 History of Buena Park, California. https://www.visitbuenapark.com/p/tools/about-us/history-of-buena-park/history. Accessed February 24, 2020.

Wallace, William J.
1978 Post-Pleistocene Archaeology, 9,000 to 2,000 B.C. In Handbook of North American Indians, William C. Sturtevant, general editor, vol. 8, California, edited by Robert F. Heizer, pp. 25-36. Smithsonian Institution, Washington, DC.

Warren, Claude N.
1968 Cultural Traditions and Ecological Adaptations on the Southern California Coast. In *Archaic Prehistory in Western United States*, Cynthia Irwin-Williams (ed.), pp. 1-14. Eastern New Mexico University Contributions in Anthropology 1(3). Portales, New Mexico.

Weather Spark
2020 Average Weather in Buena Park. https://weatherspark.com/y/1831/Average-Weather-in-Buena-Park-California-United-States-Year-Round. Accessed February 25, 2020.

ATTACHMENT C
SUPPLEMENTAL CORRESPONDENCE WITH
LOCAL COMMUNITY REPRESENTATIVES

OC LOOP SEGMENTS O, P, AND Q COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works

LOCAL CONSULTATION CONTACT LOG

Organization	Contact		Comments
	Written	Telephone	
Swati Meshram, Planning Manager, Community Development Department, City of Buena Park	8/4/2021	8/4/2021, 1:46 pm; 8/4/2021, 2:00 pm; 8/9/2021, 4:02 pm	Ms. Meshram stated on August 9, 2021, she would review the materials and respond further if she had any information or concerns to share. No further response has been received.
Buena Park Historical Society	8/4/2021	8/4/2021, 1:55 pm; 8/21/2021, 4:15 pm	Voice messages left, no response to date.

From: Terri <tjacquemain@crmtech.us>
Sent: 2021/08/04 2:24 pm
To: info@historicalsociety.org
Subject: Historical Research Inquiry, Coyote Creek Bicycle Path Project (OC Loop)

Hi there, Buena Park Historical Society!

I have written to you recently to ask for comment about the Coyote Creek Class I Bikeway Project, a proposed 2.7-mile-long multi-purpose parkway/trail through the Cities of Cerritos, La Mirada, and Buena Park near the northwest Orange County/southwest Los Angeles County border. A recently added component of the project is an overcrossing at the BNSF mainline and Stage Road that necessitates the inclusion of a total of six adjacent parcels in the Area of Potential Effect due to the potential for visual, atmospheric, and other indirect effects. These six parcels, APN 066-141-01 (5501 Western Avenue in Buena Park), 066-403-14 (7724 Granada Drive), and 066-293-01 to -04 (7728 to 7740 Granada Drive in Buena Park), are occupied by single-family residences constructed between 1947 and 1965.

I am writing today to ask if you have any information or comment regarding these residential properties. Any comments or concerns you may have can be sent to me using the information provided below. Thank you for any time and effort you may have to devote to my inquiry.

Sincerely,
Terri Jacquemain, M.A., Historian/Architectural Historian
CRM TECH, 1016 E. Cooley Drive, Suite A/B, Colton, CA 92324
tjacquemain@crmtech.us, (909) 824-6400 (O), (909) 376-7845 (M)

From: Terri <tjacquemain@crmtech.us>
Sent: 2021/08/04 2:28 pm
To: smeshram@buenapark.com
Subject: Historical Research Inquiry, Coyote Creek Bicycle Path Project (OC Loop)

Dear Ms. Meshram:

I have written previously to the City for comment about the Coyote Creek Class I Bikeway Project, a proposed 2.7-mile-long multi-purpose parkway/trail through the Cities of Cerritos, La Mirada, and Buena Park near the northwest Orange County/southwest Los Angeles County border. A recently added component of the project is an overcrossing at the BNSF mainline and Stage Road that necessitates the inclusion of a total of six adjacent parcels in the Area of Potential Effect due to the potential for visual, atmospheric, and other indirect effects. These six parcels, APN 066-141-01 (5501 Western Avenue in Buena Park), 066-403-14 (7724 Granada Drive), and 066-293-01 to -04 (7728 to 7740 Granada Drive in Buena Park), are occupied by single-family residences constructed between 1947 and 1965.

I am writing today to ask if you have any information or comment regarding these residential properties. Any comments or concerns you may have can be sent to me using the information provided below. Thank you for any time and effort you may have to devote to my inquiry.

Sincerely,
Terri Jacquemain, M.A., Historian/Architectural Historian
CRM TECH, 1016 E. Cooley Drive, Suite A/B, Colton, CA 92324
tjacquemain@crmtech.us, (909) 824-6400 (O), (909) 376-7845 (M)

ATTACHMENT C
SUPPLEMENTAL
ARCHAEOLOGICAL SURVEY REPORT

OC LOOP SEGMENTS O, P, AND Q COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL-5955(112)
Funding Source: Federal State Transportation Implementation Program
Local Agency: Orange County Department of Public Works (TO No. PW13667-051)

Prepared by:

Stephen O'Neil, M.A., RPA, Principal Investigator, Archaeology
UltraSystems Environmental, Inc., 16431 Scientific Way, Irvine, CA 92618

Reviewed by:

Victoria Stosel

Victoria Stosel, Associate Environmental Planner, Archaeology
California Department of Transportation, District 8
464 West 4th Street, San Bernardino, CA 92401

Approved by:

Alben Phung, District 12 Environmental Branch Chief
California Department of Transportation, District 12
1750 East 4th Street, Santa Ana, CA 92705

June 6, 2024

Approximately 30.1 acres;
USGS La Habra, Los Alamitos and Whittier, Calif., 7.5' quadrangles
Sections 26, 27, 33 and 34 of T3S R11W, SBBM; Coyote Creek; Orange County; historical resources: 19-86110/ 30-176630, 19-186804/30-176663, Coyote Creek (East Fork) Channel, 17814 Vierra Avenue, 17818 Vierra Avenue, 17824 Vierra Avenue, 17830 30 Vierra Avenue, and 16741 Fabrica Way

TABLE OF CONTENTS

SUMMARY OF FINDINGS 1
INTRODUCTION 4
PROJECT LOCATION AND DESCRIPTION 5
Summary of Segment O Improvements 6
Summary of Segment P Improvements 7
Summary of Segment Q Improvements 8
SOURCES CONSULTED 12
Summary of Methods and Results 12
Summary of Additional Research 12
Documentation of CHRIS Research 12
Summary of Native American Consultation 13
Summary of Consultation with Local Communities 13
BACKGROUND 14
FIELD METHODS 15
STUDY FINDINGS AND CONCLUSIONS 23
UNIDENTIFIED CULTURAL MATERIALS 24
REFERENCES 25
PREPARERS QUALIFICATIONS 26
MAPS 27
SITE RECORDS 28

LIST OF FIGURES

Figure 1. Start of Segment O at North-Fork of Coyote Creek Channel, Location of Future Bridge (View to the West). 17
Figure 2. Channel Embankment Looking at TCE at 17641 Fabrica Avenue (View to the North). 18
Figure 3. Artesia Boulevard Overcrossing, South Side (View to the South). 18
Figure 4. Caltrans Property at S. Firestone Boulevard, Interior Lot (View to the Southeast). 19
Figure 5. Caltrans Property at S. Firestone Boulevard, East Edge Along Channel (View to the North). 19
Figure 6. Undercrossing Entrance at S. Firestone Boulevard (View to the Northeast). 20
Figure 7. TCE on North Side of BNSF Spur for Undercrossing (View to the North). 20
Figure 8. Area of Permanent Easement at Dolley Avenue (View to the South). 21
Figure 9. LACFCD Parcel Overcrossing Area, Metrolink Track to the Left (View to the Southeast). 21
Figure 10. TCE Area at Amberwood Apartments (View to the Northeast). 22
Figure 11. Permanent Easement Along South Side of La Mirada Boulevard Showing Trees to be Removed (View to the East). 22

SUMMARY OF FINDINGS

This Supplemental Archaeological Survey Report (SASR) is a part of the second Supplemental Historic Properties Survey Report (**SHPSR**) prepared for the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway Project, Federal Aid Project No. ATPL-5955(112), in the cities of Cerritos (Los Angeles County), Buena Park (Orange County), and La Mirada (Los Angeles County), within Caltrans District 12. A gap in the 66-mile regional bikeway corridor called the OC Loop is located along the length of the Coyote Creek flood control channel upstream and downstream of the Santa Ana Freeway (I-5 Freeway). This gap is designated as Segments O, P and Q. The OC Loop Segments O, P and Q (proposed project) begin at the existing Coyote Creek Bikeway (in the city of Cerritos) where the flood channel divides into north and east forks, running 2.7 miles connecting to another portion of the Coyote Creek Bikeway at La Mirada Boulevard/Malvern Avenue in the city of Buena Park. The undertaking entails the construction of an asphalt bike path, 12 to 16 feet wide, along the existing maintenance road on the bank of the Coyote Creek flood control channel.

Since the completion of the original HPSR for the undertaking in November 2020 and the first Supplemental HPSR in October 2021, the Orange County Department of Public Works has made further modifications to the project plans in response to technical issues encountered in the design process or raised by the Los Angeles District of the Army Corps of Engineers. The bikeway construction plans have remained essentially the same over time – see the description in the 2021 Supplemental HPSR – and only the current Design Project Refinements are noted here. These include:

- Adjustments to the three bridges overcrossing the Coyote Creek Channel and a railroad line which include Permanent Aerial Easements (PAEs).
- Relocating the Coyote Creek Channel overcrossing in the City of Cerritos to a new site approximately 25 feet farther to the south and increasing the height of the bridge from six feet to 12 feet.
- A nine-foot-tall 250 feet long privacy wall to be added along the boundary of five adjacent single-family residential properties near the west end of the Coyote Creek Channel overcrossing bridge;
- Reorienting the southern approach to the bridge over the Union Pacific Railroad (UPRR) in the City of La Mirada from its original course parallel to the bikeway to a new course perpendicular to the latter, extending further into an adjacent vacant property under Caltrans ownership.
- Reconfiguration of the southern approach to the bridge over the Burlington Northern Santa Fe (BNSF) Railway mainline and Stage Road near the boundary between the cities of Buena Park and La Mirada into a loop over an adjacent vacant property owned by the Los Angeles County Flood Control District (LACFCD).
- Three Geotechnical Boring soil sample sites, ten combined Geotechnical Boring/Bridge Columns sites, and one Cone Penetrometer Test Sounding site will be conducted along the banks of the channel throughout the three OC Loop Segments.
- Several easements of various types – Temporary Construction Easements (TCEs) at eight locations along the entire length of the bikeway; a Permanent Sidewalk Easement (PSE) along La Mirada Boulevard; two Permanent Aerial Easements along overcrossings at the UPRR Industry Track and the BNSF corridor; two Permanent Subsurface Easements (PSUBSs)

along undercrossings at the BNSF Industry Track and the Interstate-5 freeway; two Permanent Maintenance Easements (PMWs) in the South and North Firestone Boulevard area.

- Eight additional Right-of-Way expansion takes, four in Segment P and four in Segment Q, including within the Caltrans property adjacent to South Firestone Boulevard and within the LACFCD triangular property between the Channel and the BNSF/Metrolink Corridor.
- Construction/improvement of short segments of the maintenance road along the Coyote Creek Channel, within the existing channel right-of-way.
- Removal and replacement of trees along La Mirada Boulevard in the city of Buena Park with other minor modifications including relocation of utility cabinets and installation of a fence in the median.
- A billboard along South Firestone Boulevard will be relocated from the edge of the channel to another location within the parcel approximately 700 feet to the northwest. (These components are identified on **SHPSR Attachment A, Map 3**.)
- Logistic access points at the intersections of the Coyote Creek (East Fork and North Fork) Channel with various streets, where construction equipment and materials will be loaded by crane onto flatbed cargo trucks positioned in the channel bottom.

Collectively, the additional APE measures approximately 30.1 acres in total, of which 29.5 acres will be subject to potential ground disturbance during the undertaking (see **HPSR Attachment A**, **Map 3**). The vertical extent of the APE has been increased to a maximum depth of 120 feet to accommodate the current design for geotechnical borings and bridge piles. The height of the APE is now 39 feet to accommodate for the planned railroad overcrossings. The project modifications outlined above will include newly identified logistic access points along the Coyote Creek (East Fork) Channel and the use of existing infrastructure to facilitate movement of supplies and equipment. As these areas are within the current APE, they will not alter the current horizontal or vertical extent of the APE.

Pedestrian survey constraints include large paved portions of pathways in the channel corridor, driveways associated with buildings, and parking lots; structures, and vegetation in some parcels and landscaping (see narrative and figures in Field Methods section below); access was available to all project locations.

The Study Area for this SASR covers the 29.5 acres that will be subject to temporary and permanent ground disturbances as a result of design changes. The SASR is prepared in compliance with Section 106 of the National Historic Preservation Act, as implemented through federal regulations outlined in 36 CFR 800, and in accordance with the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as It Pertains to the Administration of the Federal-Aid Highway Program in California.*

The purpose of this survey report is to document the scope of efforts to identify archaeological resources that may be affected by the project. The scope of the study included a historical/archaeological resources records search, historical and geoarchaeological background research, consultation with Native American and local community representatives, and a systematic field survey. Throughout the course of the study, no prehistoric archaeological features or artifact

deposits were encountered within the ADI, and the subsurface alluvial sediments within the vertical extent of the APE appear to be low in sensitivity for potentially significant archaeological remains of prehistoric origin in buried deposits.

There are eight cultural resources from the historic period that lie within or partially within the SASR Study Area, three of them previously recorded -- segments of the Union Pacific Railroad and the Burlington Northern Santa Fe Railway: the Union Pacific Railroad (19-186110/30-176630) intersects Segment P and the Burlington Northern Santa Fe Railway (19-186804/30-176663) intersects Segment Q, and the Coyote Creek (East Fork) Channel (3589-1H, primary number pending) during the 2020 HPSR study. All three of these linear features have been presumed eligible for the National Register for the purposes of this undertaking with Caltrans CSO approval (see **SHPSR Attachment B, Parts 2-4, and Attachment F**).

Five further historical cultural resources were recorded in the course of this study – four residential buildings recorded during this currant Supplemental study on Vierra Avenue, Cerritos at 17814 Vierra Avenue (MRN-1), 17818 Vierra Avenue (MRN-2), 17824 Vierra Avenue (MRN-3), 17830 Vierra Avenue (MRN-4) (primary numbers pending) and a warehouse building at 17641 Fabrica Way (MRN-5, primary number pending). Significance evaluation of these buildings are presented in **SHPSR Attachment D: Supplemental Historic Resource Evaluation Report** (**SHRER**).

Based on these findings, the present SASR concludes that no archaeological resources will be affected by the proposed undertaking. It is Caltrans' policy to avoid cultural resources whenever possible. Further investigations may be needed if the site[s] cannot be avoided by the project. If buried cultural materials are encountered during the undertaking, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the project changes to include areas not previously surveyed.

INTRODUCTION

This Supplemental Archaeological Survey Report (SASR) is prepared for the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway Project in the cities of Cerritos, Buena Park and La Mirada, Federal Aid Project No. ATPL-5955(112) (see **HPSR Attachment A, Map 1**). The survey was conducted in compliance with Section 106 of the National Historic Preservation Act, as implemented through federal regulations outlined in 36 CFR 800. All cultural resources investigations reported herein comply with the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as It Pertains to the Administration of the Federal-Aid Highway Program in California*.

Stephen O'Neil is the principal investigator for this SASR. Mr. O'Neil meets the Professional Qualified Staff (PQS) Standards in Section 106 PA Attachment 1 as a Principal Investigator - Prehistoric Archaeology. See **Preparers Qualifications** at the end of the SASR. Megan B. Doukakis, Co-Principal Investigator -Prehistoric Archaeology, assisted Mr. O'Neil in the preparation of this SASR. See **Preparers Qualifications** at the end of the SASR.

The archaeological field survey was conducted on February 6, 2020, with a supplemental field survey on August 14, 2021, and again on April 6, 2023 for the current Supplemental ASR, by Stephen O'Neil, RPA, principal investigator for this SASR.

In addition to the archaeological field survey, Stephen O'Neil also conducted the cultural resources records search, the geoarchaeological analysis, and consultation with Native American representatives with the assistance of project archaeologist Megan Black Doukakis (B.A., anthropology, California State University, Long Beach, 2011, and M.A., public archaeology, California State University, Northridge, 2018). Other components of the scope of the study included historical background research and consultation with local community representatives, both carried out by project historian Terri Jacquemain (M.A., public history, University of California, Riverside, 2004).

PROJECT LOCATION AND DESCRIPTION

PROJECT LOCATION AND CONTEXT

OC Loop Segments O, P, and Q Coyote Creek Bikeway Project (proposed project) involves the construction of a 2.7-mile Class I Bikeway along the Coyote Creek storm drain channel and would, at its southern terminus, begin at the existing Coyote Creek Bikeway (in the City of Cerritos) at the confluence of the north and east forks of the Coyote Creek Flood Control Channel. The alignment of the proposed project trends in a northeast direction for approximately 2.7 miles, where it connects to Segment R of the Coyote Creek Bikeway at La Mirada Boulevard in the City of Buena Park.

The Orange County Department of Public Works, in cooperation with the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans), Federal Project No. ATPL-5955(112), proposes to construct an asphalt bike path along the west bank of the Coyote Creek Channel starting at the confluence of the north and east forks of the channel at the south end in the city of Cerritos, north for 2.7 miles connecting to another portion of the Coyote Creek Bikeway at La Mirada Boulevard/Malvern Avenue in the cities of Buena Park and La Mirada. This undertaking will be conducted in a work area approximately 250 feet wide (east/west) and 2.7 miles long (north/south), closing a gap in the 66-mile regional bikeway corridor called the OC Loop that is located along the length of the Coyote Creek flood control channel upstream and downstream of the Santa Ana Freeway (I-5 Freeway). This gap is designated as Segments O, P, and Q. The undertaking is located in the cities of Cerritos, Buena Park, and La Mirada in Orange County and Los Angeles County within Caltrans District 12 (see **SHPSR Attachment A, Maps 1-3**).

The OC Loop Segments O, P, and Q are located in an urban mixed industrial, commercial and low-density residential setting in the cities of Buena Park, La Mirada, and Cerritos within a portion of the Rancho Los Coyotes land grant in what would be Sections 26, 27, 33 and 34 of Township 03 South, Range 11 West, San Bernardino Baseline and Meridian on the *La Habra*, *Los Alamitos* and *Whittier, Calif*. USGS quadrangle topographic maps (see **SHPSR Attachment A, Maps 1 and 2**). The entire Study Area for the SASR consists of extensively disturbed public rights-of-way and private property, and land within the Coyote Creek Channel (primarily LACFCD parcels) is mostly exposed soil with a deteriorated asphalt access road. Land use along the OC Loop Segments O, P, and Q Coyote Creek Bikeway features a mixture of commercial, light industry and some residential primarily consisting of structures and asphalt parking/roadways (see **SHPSR Attachment A, Map 3**).

The total APE comprises approximately 62.33 acres, including parcels of privately-owned commercial and industrial properties adjacent to the proposed OC Loop Segments O, P, and Q Coyote Creek Bikeway rights-of-way resulting from the new design changes (see **SHPSR Attachment A, Map 3**). The Study Area for this Supplemental ASR covers the area that will be subject to ground disturbances during the bike trail construction, which lies within the existing and new rights-of-way, an LACDFC parcel, and numerous permanent and temporary easements described below in **New Design Elements** (see **SHPSR Attachment A, Map 3**). The design changes add 30.1 acres to the APE, of which 29.5 acres lie within the ADI. The vertical extent of the APE will not exceed the depth of approximately 120 feet below the ground surface (for geotechnical borings), and will not exceed a height of 39 feet. The original APE map (see 2020 **HPSR Attachment A, Map 3**) was signed November 16, 2020. This was revised for the current **SHPSR** to reflect the design changes described below and was approved March 7, 2024.

Since the completion of the original ASR in November 2020 and the 2021 Supplemental ASR (see **SHPSR Attachment B, Parts 1** and **5**) in August 2021, the Orange County Department of Public Works has made several updates to the project plans in part due to public comments and discussion with the railroads and the U.S. Army Corps of Engineers (USACE). The new proposed changes include design and alignment changes at various locations, identification of geotechnical borings/testing locations, new proposed temporary and permanent easements, and new temporary construction staging/work areas. These have been added to the Summary Improvement descriptions below.

PROJECT DESCRIPTION

The project description was previously presented in the 2020 ASR and the 2021 Supplemental ASR (See **SHPSR Attachment B, Parts 1** and **4**). .

NEW DESIGN ELEMENTS

Following are summary descriptions of the main improvements planned as part of the proposed project, presented on a segment-by-segment basis. A number of utility crossings would be necessary to accommodate the proposed project. Existing flood control maintenance road ramps from the flood control channel to existing roadways would be improved for bicycle access as well. Chain link or wire fencing would be provided where safety dictates, on one or both sides of the bikeway.

Summary of Segment O Improvements

Pedestrian/Cyclist Bridge

At Station 10+00, at the confluence of the north and east forks of the flood control channel, a 200-foot-long and 12-foot-wide pre-fabricated truss bridge would be installed across Coyote Creek at the north fork (the Cerritos Bridge). The bridge will be laterally relocated to 25 feet south of the original design; this relocation remains within the identified project footprint. The bridge height will be increased from six feet to 12 feet and the deck height increased to 18 inches. A nine-foot-tall, 250 feet long, privacy wall will be added along the boundary of five adjacent single-family residential properties near the western end of the bridge (APNs 7022-022-033 through 7002-022-007). (See **Attachment A**, **Map 3, Sheet 1**).

Temporary Construction Easements (TCEs), Geotechnical Borings and Right-of-Way Expansions

There will be three TCEs in Segment O, at the Cerritos Bridge, at the south end of Fabrica Way around a commercial property (APN 7022-023-022), and on the south side of Artesia Boulevard (APN 276-031-05).

There will be one Geotechnical Boring and one Cone Penetrometer Test (CPT) Sounding test at the south end of Segment O for the Cerritos Bridge supports.

There will be minor public right-of-way expansions for associated project work areas, shallow bioswales, traffic control and striping will be at four locations in Segment O – the south end of Segment O at the junction of Coyote Creek Channel and the North Fork Channel, on the north side of the Valley View Boulevard bikeway undercrossing, on the Los Angeles County Flood Control

District (LACFCD) property (APN 7022-023-904) right-of-way north side bioswale, and at the south side of the Artesia Boulevard (APN 276-031-05) crossing of the bikeway.

Summary of Segment P Improvements

Pedestrian/Cyclist Bridge

Reorienting the southern approach to the bridge over the UPRR in the City of La Mirada from its original course parallel to the bikeway to a new course perpendicular to the latter, extending further into the adjacent Caltrans property (APN 7003-009-909; see **Attachment A**, **Map 3, Sheet 7**).

Temporary Construction Easements (TCEs), Permanent Aerial Easement (PAE), Permanent Subsurface Easements (PSUBE), Right-of-Way Expansions and Geotechnical Boring/Bridge Column

There will be two TCEs in Segment P - on the north side of Artesia Boulevard (APN 7003-011-036) and on the Caltrans property located between the UPRR and South Firestone Boulevard (APN 7003-009-909).

There will be a PAE at the UPRR Industry Track (APN 7003-011-815) to allow placement of a bridge.

There will be two PSUBE s in Segment P - on the Caltrans parcel (APN 7003-009-909) on the north edge of South Firestone Boulevard, and another for the I-5 and South/North Firestone Boulevard bikeway undercrossing.

There will be a PME on the Caltrans Property located along South Firestone Boulevard (APN 7003-009-909) and another at the intersection of North Firestone Boulevard and Trojan Way (APN 7001-014-808).

There will be minor public right-of-way expansions at four locations in Segment P – on the north side of the Artesia Boulevard crossing of the bikeway, on Caltrans property (APN 7003-009-909) south side work area, at the South and North Firestone Boulevard bikeway crossing, and at the Knott Avenue bikeway at grade crossing.

There will be five Geotechnical Boring/Bridge Column borings conducted along the bikeway alignment from north of Artesia Boulevard to immediately north of the UPRR line.

Maintenance Road Construction/Improvements and Physical Disturbance

There will be a series of short segments of construction and improvements of the maintenance road along the Coyote Creek Channel, within the existing right-of-way (see **SHPSR Attachment A**, **Map 3, Sheets 6, 7** and **8**). Also, the existing lighted freeway billboard located on Caltrans property along the south side of South Firestone Boulevard is proposed to be relocated/replaced on the same Caltrans property farther to the north.

Summary of Segment Q Improvements

BNSF Bikeway Bridge

There will be a reconfiguration of the southern approach to the bridge over the BNSF Railway mainline and Stage Road near the boundary between the Cities of Buena Park and La Mirada into a loop over an adjacent vacant property owned by the LACFCD (APN 066-581-05; see **SHPSR Attachment A**, **Map 3, Sheet 11**).

Temporary Construction Easements (TCEs)

There will be six TCEs in Segment Q - at the BNSF Railroad Lead crossing (segments of APN 066-101-30 and 066-010-53, and LACFCD Easement parcels 594 and 645), an expansion of the TCE at the Amberwood Apartments (APN 066-584-09) immediately north of Stage Road, at the northeast edge of parcel APN 7001-020-039 located at the end of Desman Road. Also, at 7650 Stage Road APN 066-582-02 and LACFD Easement parcel 244. Another TCE option is along a non-functioning railroad track from Dolley Road to the Channel (APN 066-010-48). There will also be a TCE at the sidewalk along the south side of La Mirada Boulevard (APN 066-584-05) and on the Chevron Corporation property located along the south side of the BNSF Railway (APN 066-581-030).

Permanent Sidewalk Easement (PSE), Permanent Aerial Easement (PAE), Permanent Subsurface Easements (PSUBE) and Permanent Maintenance Easements (PMEs)

There will be a PSE along the sidewalk on the south side of La Mirada Boulevard (APN 066-584-04).

There will be a PAE at the BNSF Corridor (APN 066-581-03) to allow placement of a bridge.

There will be a PSUBE under the BNSF Industry Track (APN 066-010-30) for a bikeway undercrossing.

There will be three PMEs in Segment Q - at the BNSF Lead Undercrossing, a PME from the end of Dolly Avenue to the Channel between APN 066-010-48 and 066-101-53 (using one of two options – Option 1.0 at 5650 Dolly Avenue, APN 066-010-48, or Option 1.1 at 5655 Dolly Avenue, APN 066-010-53) for Maintenance Access extending to the Channel; and a PME within the driveway and parking area of the Orange Courier warehouse at 15300 Desman Road (APN-7001-020-039) to provide access from to the Channel.

There will be a series of short segments of construction and improvements of the maintenance road along the Coyote Creek Channel, within the existing right-of-way (see **SHPSR Attachment A**, **Map 3, Sheets 9, 11** and **12**).

Physical Disturbance and Landscaping

Several improvements will be implemented along La Mirada Boulevard that will cause new physical disturbance to the project site. There will be crossing median improvements at the north/south lighted crossing. A current concrete blank signage monument approximately 2.5 feet wide and 6.5 high in the landscape bed at the shopping center entrance off of La Mirada Boulevard will be relocated.

Removal and replacement of trees along La Mirada Boulevard in the City of Buena Park, along with minor streetscape modifications such as relocation of utility cabinets and installation of a fence in the median (see **SHPSR Attachment A**, **Map 3, Sheet 14**). The Southern California Edison utility cabinets on both the south and north sides of La Mirada Boulevard will be relocated.

Right-of-Way Expansions and Geotechnical Boring and Geotechnical Boring/Bridge Column

Minor public right-of-way expansions for associated project work areas such as shallow bioswales, traffic control and striping will be at four locations in Segment Q - the Knott Avenue bikeway at grade crossing; on the LACFCD right-of-way triangular property (APN 066-581-05) between the Channel, the BNSF/Metrolink Corridor and the Orange Courier property; at the LACFCD channel bottom crossing for bridge construction; and at the La Mirada Boulevard bikeway crossing.

Two Geotechnical Borings will be conducted on the bikeway alignment near the BNSF railroad lead. Also, five Geotechnical Boring/Bridge Column borings will be conducted along the bikeway and truss bridge alignment at the BNSF/Metrolink/Coyote Creek crossing, south of Stage Road, and at the truss bridge alignment north of Stage Road.

Summary of General Design Elements

Changes to the Area of Potential Effects

The remainders of two commercial properties where extensive easements will be required on all sides of the existing buildings, namely a PME and TCE at APN 7001-020-039 in La Mirada and a TCE at 7022-023-022 in Cerritos (see **SHPSR Attachment A, Map 3, Sheets 1** and **11**).

The remainders of the two vacant Caltrans and LACDFC properties where the reconfigured approaches to the UPRR and BNSF overcrossings will be constructed, namely at APNs 7003-009-909 in La Mirada and 066-581-05 in Buena Park (see **SHPSR Attachment A, Map 3, Sheets 7** and **11**).

Stormwater

A Water Quality Management Plan (WQMP) that may include constructed stormwater quality enhancements will be prepared as a part of this project. The project would add impervious surface areas. Storm drain pipes would be placed at the lowest elevation of undercrossings to allow storm water to drain into the adjacent channel. Bioswales for water quality treatment would be employed at the downstream sides of both railroad undercrossings.

Lighting

Other than for about 200 feet of bikeway under North and South Firestone Boulevard and the I-5, the project does not propose any trail lighting. Additionally, light would be produced from signals (such as traffic signals) along the project alignment.

Signage

Only standard and minimal bike signage and location maps conforming to OC Parks signage codes and criteria are required.

Logistic Access Points

There will be five logistic access points at or near the intersections of the Coyote Creek (East Fork) Channel with Valley View Street, Artesia Boulevard, Knott Avenue, Stage Road, and La Mirada Boulevard. All of these locations are confined within the geographic limits of the existing APE, and all activities there will be carried out using existing infrastructure. Therefore, the access points do not increase the horizontal or vertical extent of the APE.

Easements Summary

The revised project design would include the following Temporary Construction Easements (TCEs):

- At the Cerritos Bridge site (at the confluence of the North Channel and the main Coyote Creek Channel).
- At the south end of Fabrica Way around a commercial property to allow construction access to the Cerrito Bridge (APN 7022-023-022).
- To the south (APN 7003-011-036) and north (APN 276-031-05) sides of Artesia Boulevard.
- On the Caltrans property located between the UPRR and South Firestone Boulevard (APN-7003-009-909).
- At the BNSF Railroad Lead undercrossing.
- Adjacent to Dolley Road and the Channel, with an optional TCE along a non-functioning railroad track from Dolley Road to the Channel (APN-066-010-48).
- An expansion of the TCE at the Amberwood Apartments north of Stage Road (APN-066-584-09).
- At the northeast edge of parcel APN 7001-020-039 located at the end of 15250 Desman Road.
- At the sidewalk along the south side of La Mirada Boulevard.

The revised project design would include the following Permanent Sidewalk Easement (PSE):

- Along the south side of La Mirada Boulevard (APN 066-584-04).

The revised project design would include the following Permanent Aerial Easements (PAEs):

- At the UPRR Industry Track (APN 7003-011-815) to allow placement of a bridge.
- At the BNSF Corridor (APN 166-581-03) to allow placement of a bridge.

The revised project design would include the following Permanent Subsurface Easements (PSUBEs):

- Under the Interstate-5 (Santa Ana) Freeway at Caltrans property APN 7003-009-909 for a bikeway undercrossing from the north edge of South Firestone Boulevard to the south edge of North Firestone Boulevard.
- Under the BNSF Industry Track (APN 066-581-03) for a bikeway undercrossing.

The revised project design would include the following Permanent Maintenance Easements (PMEs):

- On the Caltrans Property (APN 7003-009-909) located along South Firestone Boulevard, and at the intersection of North Firestone Boulevard and Trojan Way (APN 7001-014-808), related to the I-5 undercrossing.
- At the BNSF Undercrossing.
- From the end of Dolly Avenue to the Channel using one of two options at either 5650 Dolley Road (APN 066-010-48), or at the end of 5655 Dolly Avenue (APN 066-010-53) for Maintenance Access.
- Within the driveway and parking area of the warehouse at 15300 Desman Road (APN 7001-020-039) to provide access to the Channel.

Summary of Improvements

Construction activities will be confined within the existing rights-of-way, a new right-of-way acquisition on Caltrans parcel (APN 7003-009-909), and numerous temporary and permanent easements throughout the APE – see the Project Description above and **SHPSR Attachment A, Map 3**; staging/storage areas, temporary access, or borrow/disposal sites will be required. The undertaking will not realign or widen any roadways. There will be tree removals along La Mirada Boulevard.

The vertical extent of ground disturbance during the undertaking is not expected to exceed approximately 120 feet in depth and 39 feet in height. Excavation to 18.5 feet will be conducted for placement of concrete box culverts at the Artesia Boulevard tunnel undercrossing and the BNSF spur line crossing, while excavation for placement of fence poles and wall foundations will not exceed two feet. There will be three Geotechnical Boring soil sample tests conducted as well as ten combined Geotechnical Boring/Bridge Column for combined soil sample tests and corings for bridge columns. The geotechnical borings will be eight inches (8”) in diameter and reach depths up to 120 feet; the combined geotechnical/column borings will range from 24 inches to 84 inches in diameter and may reach depths up to 100 feet. There will be above-ground utility infrastructure removals in the form of abandoned fuel lines that cross the Channel, the lighted freeway billboard along South Firestone Boulevard on Caltrans property is proposed to be relocated/replaced, and a power pole in the northwest quadrant at South Firestone Boulevard would require relocating.

SOURCES CONSULTED

SUMMARY OF METHODS AND RESULTS

A cultural resource records search was conducted on February 18, 2020, at the South Central Coastal Information Center (SCCIC), California State University, Fullerton, to assess the extent of previous survey coverage and identify known historical/archaeological resources in the vicinity of the APE.

The results of the records search indicate that within a half-mile radius of the APE four cultural resources have been recorded. All four are recorded historic-era cultural resources, one of which includes possible paleontological resources. These sites were described and discussed in the original 2020 ASR (see **SHPSR Attachment B, Part 1**).

Within a half-mile radius of the Study Area, SCCIC records indicated 20 cultural resources studies have been conducted. Ten of these studies are located outside of the project boundary while the remaining ten of them intersect the project site itself. These studies were described and discussed in the original 2020 ASR (see **SHPSR Attachment B, Part 1**).

The SPRR and the ATSF are among the previously recorded sites identified through the records search, both crossing into the APE; they are presumed eligible for listing in the National Register of Historic Places for the purposes of this undertaking because of the limited potential for effects (see **SHPSR Attachment B, Parts 2-4**). First recorded during the 2020 survey, during the present study, the Coyote Creek (East Fork) Channel was also presumed eligible for the National Register for the purposes of this undertaking with Caltrans CSO approval (see **SHPSR Attachment F**).

SUMMARY OF ADDITIONAL RESEARCH

In conjunction with the records search, a historical background review was conducted on the basis of published literature in local history, historic maps and aerial photographs, and flood control records of the Orange County Flood Control District. Through analysis of these materials, historical themes emerge and establish a context specific to the APE and vicinity that in turn can be placed within comprehensive generalizations in broader trends and events in the region, state, and nation.

Geoarchaeological analysis for this SASR was based on existing literature on surface geology and soil types in the vicinity, pertinent geological and soil maps, and of the natural history of Coyote Creek. The purpose of the analysis was to assess the potential of the Study Area for the deposition and preservation of subsurface cultural deposits from the prehistoric period, which cannot be detected through a standard archaeological survey. Findings from the historical and geoarchaeological researches are incorporated into the discussion in the **Background** section below.

DOCUMENTATION OF CHRIS RESEARCH

See the Confidential Appendix 1 with documentation of the records search, including Reports Listing, Site Records Listing, and related maps, as well as DPR site record forms of resources within the APE.

SUMMARY OF NATIVE AMERICAN CONSULTATION

Because the minor changes in the project designs did not alter the project footprint substantially, it was determined that previous Native American consultation presented in the original HPSR for this undertaking (see **SHPSR Attachment B, Part 1** for the 2020 **HPSR Attachment E**) were suffici9ent.

SUMMARY OF CONSULTATION WITH LOCAL COMMUNITIES

As a part of the research procedures, local historical/archaeological organizations and city government staff in each community along the APE were consulted regarding potential cultural resources of local significance in or near the APE was conducted in 2020 and 2021 for the original and first Supplemental HPSR and may be found there (**SHPSR Attachment B, Parts 1** and **5**).

As a part of the research procedures for the current Supplemental HPSR, Mike O'Grady, Environmental Services Manager for the City of Cerritos Community Development Department, was contacted by electronic mail and telephone by Terri Jacquemain between April 17 and May 9, 2023; no response has been received. The Orange County Historical Society/Heritage Museum were contacted by electronic mail and telephone by Terri Jacquemain between April 19 and May 8, 2023, for information or comment regarding potential local historical interest in buildings under evaluation. No response has been received to date (see **SHPSR Attachment E**).

BACKGROUND

The environmental and historical background overview of the entire APE was presented in the original HPSR for this undertaking (see **HPSR Attachment B, Part 1** [**Attachment C HRER],** and **HPSR: Attachment E Local Community**). The minor expansion of the APE remained within the buffer area of the original CHRIS records search and therefore there would not be any additional site records or prior survey reports to take into account.

DISCUSSION OF POTENTIAL FOR ARCHAEOLOGICAL DEPOSIT

The greater depths of ground disturbance associated with the added Geotechnical Borings and the combined Geotechnical Boring/Bridge Column excavation of up to 120 feet would not result in greater potential disturbance to cultural resources than the original 18.5 feet of potential disturbance. Soil along the Coyote Creek Channel is entirely light grey sandy alluvium which has been extensively graded, with any remaining natural banks cut-and-filled and otherwise disturbed by the early 1960s to allow the complete concrete channelization of the creek along the entire length of the project boundary. The surface (down to approximately 30 feet) geology of the project consists of younger Quaternary Alluvium (Qya) dating to the Holocene and Late Pleistocene (Saucedo et al. 2016). These soils are "…derived as alluvial fan deposits from the Puente Hills to the north via Coyote Creek that currently flows adjacent to almost all of the proposed project area" (McLeod, 2020:1). Past potential prehistoric sites within the project work area would have been subject to disturbance by historic flood events along the banks of Coyote Creek; for example, extensive flooding in the 1860s with four events shifting the course of the adjacent San Gabriel River eastward from emptying into the Los Angeles harbor to the Long Beach harbor, causing Coyote Creek to flow into the San Gabriel River instead of its previous exit within Alamitos Bay (Boxt 2021:5-8). Further disturbance to prehistoric resources would have occurred with the subsequent construction of the Coyote Creek Channel itself with dredging of the creek and cut-and-fill along the banks.

FIELD METHODS

Pedestrian surveys were conducted along the proposed bikeway alignment for the original and first supplemental (see **SHPSR Attachment A, Map 2** and **Map 3**) ASRs on February 6, 2020 and August 14, 2021 by Mr. Stephen O'Neil. A pedestrian field survey was conducted April 6, 2023 to support the current Supplemental ASR, also by Mr. O'Neil. The survey consisted of walking, visually inspecting, and photographing the exposed ground surface and landscaped areas of the project site using standard archaeological procedures and techniques. Access to the channel was through gates at several of the road crossings; this was provided by Mr. Brad Fowler with Orange County Public Works with the temporary loan of a universal lock key.

Survey of the ground surface was conducted in a linear and opportunistic manner; walking transects over the north / west channel embankment (depending on orientation) above the channel itself and in parcels which will be used as TCEs, PMEs, PSEs, PAEs and PSUBEs. The embankment ranged from approximately 20 to 60 feet wide with an asphalt access road approximately ten feet wide along the channel-side edge. The asphalt road was occasionally well maintained, but frequently was not and was more gravely in constitution. There was a boundary chain-link fence along the entire boundary line on the north/west side. The embankment from the access road to the fence was sometimes level, and occasionally sloped up to the fence, and ranged from ten feet to 55 feet away from the access road. This open area was consistently devoid of vegetation. Visibility of the surface was constrained at several locations due to either volunteer vegetation or landscaping – the main four locations are noted below.

The survey started at the southern end of Segment O (see **Maps** below), where the East Fork of the Coyote Creek Channel is joined by the North Fork – Coyote Creek (**Figure 1**). The four residences along Vierra Avenue west of the North Fork that may receive an Indirect Effect (IDE) with the raising of the Cerritos Bridge were observed and photographed for the IDE assessment, and the warehouse parcel at 17641 Fabrica Avenue which will have a TCE was observed and photographed (see **SHPSR Attachment A, Map 3, Sheet 1 of 14**) (**Figure 2**). The west side of the channel was walked northward, observing commercial buildings adjacent to the embankment up to the Valley View Avenue bridge crossing the channel where there would be a bicycle trail undercrossing. The newly added APE properties on either side of Valley View Avenue (see **SHPSR Attachment A, Map 3**, **Sheet 2 of 14**) were observed. The transect continued eastward. Structures lining the channel boundary between Valley View Avenue and the end of Segment O at Artesia Boulevard are industrial and commercial businesses.

The area at the Artesia Boulevard bridge over the Channel (**Figure 3**) at the junction of Segments O and P (see **SHPSR Attachment A, Map 2**, central green portion; and **Map 3 Sheets 4** and **5 of 14**) was observed. Properties at the Artesia Boulevard undercrossing were observed. The planned tunnel area under Artesia Boulevard to the west of the Coyote Creek Channel, and the embankment entrances for construction access were also surveyed.

The entire Caltrans property (APN 7003-009-909) (**Figure 4** and **Figure 5**) was surveyed because of the several new design elements that will be placed here. However, temporarily, this parcel is currently being used as a truck transportation storage lot with trucks and cargo bins covering more than half of the surface. The entire surface is now graded level and covered with a thin layer of asphalt which obscures visibility of the ground.

Because of the revised design which now includes reconfigured bikeway bridge alignment, plus added PE and TCE, this area between the UPRR bridge and South Firestone Boulevard was surveyed again (**Figure 6**).

Immediately north of the Caltrans property (APN 7003-009-909) is the bicycle pathway undercrossing entrance at South Firestone Boulevard that crosses the I-5 Freeway and exits at Firestone Boulevard adjacent to the freeway on the north side. The areas of additional PEs for the undercrossing itself and on the north side at North Firestone Boulevard and Trojan Way were surveyed.

The APE at Knott Avenue was expanded approximately 100 feet and 200 feet to the north and south of the at-grade crossing (see **HPSR Attachment A, Map 3 Sheet 8** of **14**) including the road and adjacent landscaping, and this area was surveyed.

The pedestrian survey continued on to Segment Q (see **SHPSR Attachment A, Map 2**, eastern purple portion), which starts at the Knott Avenue bridge. Beyond Knott Avenue within approximately 425 feet there is a small BNSF spur railroad line that crosses the channel (see **SHPSR Attachment A, Map 3 Sheet 9** of **14**) (**Figure 7**). This point where the bicycle trail has been redesigned to remain at the Channel bank elevation for an undercrossing at the railroad bridge, as well as a TCE on either side of the railroad bridge, was observed. Approximately 350 feet to the east a new PE will be situated using one of two alternative parcels (southeastern segment of APN 066-010-53 or a southwestern segment of APN 066-010-48) at Dolly Avenue (**Figure 8**) that are now either paved parking space or landscaped obscuring the ground surface; these were observed during the survey.

The survey continued along the west channel embankment as the channel turns to the northeast. In this area, commercial buildings line the west side of the channel fencing. The BNSF mainline, or Metrolink line, bridge crosses the channel on this stretch (**Figure 9**) (see **SHPSR Attachment A, Map 3 Sheet 11** of **14**) where the new bicycle pathway design will incorporate an overcrossing. At this point on the west side of the channel there is a single large commercial building, the Orange Courier (APN 7001-020-039) which will have a new PE, as well as a TCE at the northeast edge of the property (APN 066-581-05) belonging to the LACFCD where the loop bridge will be constructed. The triangular LACFCD property here is fully covered with volunteer weeds (**Figure 9**) which generally obscured ground visibility. The PE area, the TCE and the LACFCD property were surveyed at this time, as well as the land on the north (west) side of the BNSF crossing / proposed bridge and its path to the east side of the Channel.

Approximately 450 feet to the north of the railroad bridge the channel is crossed by Stage Road. Directly before the street bridge the bicycle trail would cross to the east side of the Channel on a redesigned pathway prefabricated truss bridge. The redesigned bridge will result in a new TCE along the western edge of the Amberwood Apartments (APN 066-584-09) (**Figure 10**) (see **SHPSR Attachment A, Map 3 Sheet 13** of **14**). This area was resurveyed in August 2021 as well as during the present survey. Also surveyed along the area of new TCEs on both sides of Stage Road west and east of the Channel bridge.

The bikeway pathway would leave the channel embankment at La Mirada Boulevard, entering the sidewalk along the east-bound lane of the street (see **SHPSR Attachment A, Map 3 Sheet 14** of **14**). Along the south and north sides of the street there is ornamental landscaping between the sidewalk

and a retail building on the south (northeast edge of APN 066-584-04) and residences on the north (sidewalk strip within APN 006-601-64). Because of the planned relandscaping, the ground surface here was closely observed (**Figure 11**), though current landscaping obscures much the ground. The bike pathway would cross La Mirada Boulevard at the signaled intersection and then continue on the northside sidewalk west to the existing bicycle trail along the Coyote Creek Channel's west embankment. This is the northern terminus of Segment Q.

The multiple Geotechnical Borings and Geotechnical Boring/Bridge Column testing locations in Segments O, P and Q (see above for specific locations) were all observed and documented.

All homeless encampments observed in 2020 and 2021 were no longer present.

The result of the pedestrian survey was negative for both prehistoric and historic archaeological resources. Photographs of the project site were taken during the cultural resources survey to document the observations.



Figure 1. Start of Segment O at North-Fork of Coyote Creek Channel, Location of Future Bridge (View to the West). (Photograph Taken on April 6, 2023.)



Figure 2. Channel Embankment Looking at TCE at 17641 Fabrica Avenue (View to the North). (Photograph Taken on April 6, 2023.)



Figure 3. Artesia Boulevard Overcrossing, South Side (View to the South). (Photograph Taken on April 6, 2023.)



Figure 4. Caltrans Property at S. Firestone Boulevard, Interior Lot (View to the Southeast). (Photograph Taken on April 6, 2023.)



Figure 5. Caltrans Property at S. Firestone Boulevard, East Edge Along Channel (View to the North). (Photograph Taken on April 6, 2023.)



Figure 6. Undercrossing Entrance at S. Firestone Boulevard (View to the Northeast). (Photograph Taken on April 6, 2023.)



Figure 7. TCE on North Side of BNSF Spur for Undercrossing (View to the North). (Photograph Taken on April 6, 2023.)



Figure 8. Area of Permanent Easement at Dolly Avenue (View to the South). (Photograph Taken on April 6, 2023.)



Figure 9. LACFCD Parcel Overcrossing Area, Metrolink Tracks to the Left (View to the Southeast). (Photograph Taken on April 6, 2023.)



Figure 10. TCE Area at Amberwood Apartments (View to the Northeast). (Photograph Taken on April 6, 2023.)



Figure 11. Permanent Easement Along South Side of La Mirada Boulevard Showing Trees to be Removed (View to the East). (Photograph Taken on April 6, 2023.)

STUDY FINDINGS AND CONCLUSIONS

The result of the archaeological field survey was negative for both prehistoric or historical archaeological features or artifact deposits. Based on the results of the records search, tribal consultation, and the onsite field survey, it is unlikely that prehistoric cultural resources or tribal resources would be adversely affected by construction of the project. Land at the Study Area along the Coyote Creek Channel is entirely light grey sandy alluvium which has been extensively graded, with any remaining natural banks cut-and-filled by the early 1960s to allow the complete concrete channelization of the creek along the entire length of the project boundary. However, grading activities associated with construction of the project would cause new subsurface disturbance and potentially could result in the unanticipated discovery of disturbed archaeological resources dating to the natural free-flow of Coyote Creek when its immediate area may have been used by Native Americans for resource gathering and travel. Since the undertaking is confined within the extensively disturbed rights-of-way of existing channel and access roads, and slope created by historic alluvial action, the subsurface soils within the vertical APE are determined to be low in sensitivity for buried archaeological remains.

For built-environment features of historical origin, there are four single-family residences dating from the 1970s (late historic period) that were identified in the supplemental APE for indirect effects and evaluated in the **SHRER** (see **SHPSR Attachment D**). There is one commercial building also dating from the 1970s (late historic period) that was identified in the supplemental APE and the ADI and evaluated in the **SHRER**. All five buildings have been found not to be eligible for the National Register of Historic Places, as discussed in the **SHRER**.

Three linear features from the historic period were noted as lying partially within the APE during the 2020 and 2021 surveys for his undertaking, namely the former southern Pacific Railroad (SPRR; now UPRR) system (19-186110/30-176630), the former Atchison, Topka and Santa Fe Railway (ATSF; Now BNSF) system (19-186804/30-176663), and the Coyote Creek (East Fork) Channel (primary number pending; see **SHPR Attachment B**, **Parts 1**, **5**). All three of these were also found to be located in the additional APE and ADI.

Pursuant to Stipulation VIII.C.4 of the Section 106 PA, in 2021 the SPRR and the ATSF were presumed eligible for listing in the National Register of Historic Places for the purposes of this undertaking because of the limited potential for effects (see **SHPSR Attachment B, Parts 2-4**). The proposed modifications to the project plans will not alter the nature and extent of the undertaking's impacts on these two linear features and, therefore, the existing conclusions remain valid. During the present study, the Coyote Creek (East Fork) Channel was also presumed eligible for the National Register for the purposes of this undertaking with Caltrans CSO approval (see **SHPSR Attachment F**).

The Caltrans parcel (APN 7003-009-909) was the site of a light industrial/office complex of four buildings that were constructed after 1974 (USGS 1974) and before 1982 (NETROnline 2023). These were extant until late 2018 (NETROnline 2023) and were not observed in the several pedestrian surveys conducted for this project. During the initial 2020 survey this parcel was not within the APE and so was not observed at the time. During the supplemental 2021 survey the parcel surface was obscured with soil; during the current 2023 survey the parcel was surveyed and found to be obscured with soil and asphalt and was generally covered by shipping containers; no building pads were visible

(see **Figure 4**). The structures, being built post-1974, would not be considered historical in age, nor would any foundational remains that may survive under the newly imported soil and asphalt paving.

Based on these findings, this second Supplemental ASR concludes that no archaeological resources will be affected by the proposed undertaking.

UNIDENTIFIED CULTURAL MATERIALS

If previously unidentified cultural materials are unearthed during construction, it is Caltrans' policy that work be halted in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological survey will be needed if project limits are extended beyond the present survey limits.

REFERENCES

Advisory Council on Historic Preservation
2000 *Protection of Historic Properties, Section 106, Step-by-Step*. http://www.achp.gov.

Boxt, Matthew A.
2021 The Archaeology of California State University, Long Beach. *Pacific Coast Archaeological Society Quarterly* 55(4):1-75.

McLeod, Samuel A.
2020 Letter to Stephen O'Neil "Re: Paleontological Records Search for the proposed Orange County Loop Segments O, P and Q Project, UltraSystems Environmental Project No. 7034, in the Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, project area." Vertebrate Paleontology Section, Natural History Museum of Los Angeles County. Dated 13 February 2020.

NETR Online
2023 Aerial photographs of the project vicinity, taken in 1972, 1982, 1988, 2018, and 2020. http://www.historicaerials.com. Accessed December 5, 2023.

Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format*. Department of Parks and Recreation, Office of Historic Preservation: Sacramento.

1997 Instructions for Nominating Historical Resources to the California Register of Historical Resources. Office of Historic Preservation, Sacramento: California.

Saucedo, George J., H. Gary Green, Michael P. Kennedy, and Stephen P. Bezore.
2016 *Geologic Map of the Long Beach 30'x 60' Quadrangle, California, Version 2.0*. 1:100,000 Scale. California Geological Survey. Accessed July 7, 2020.

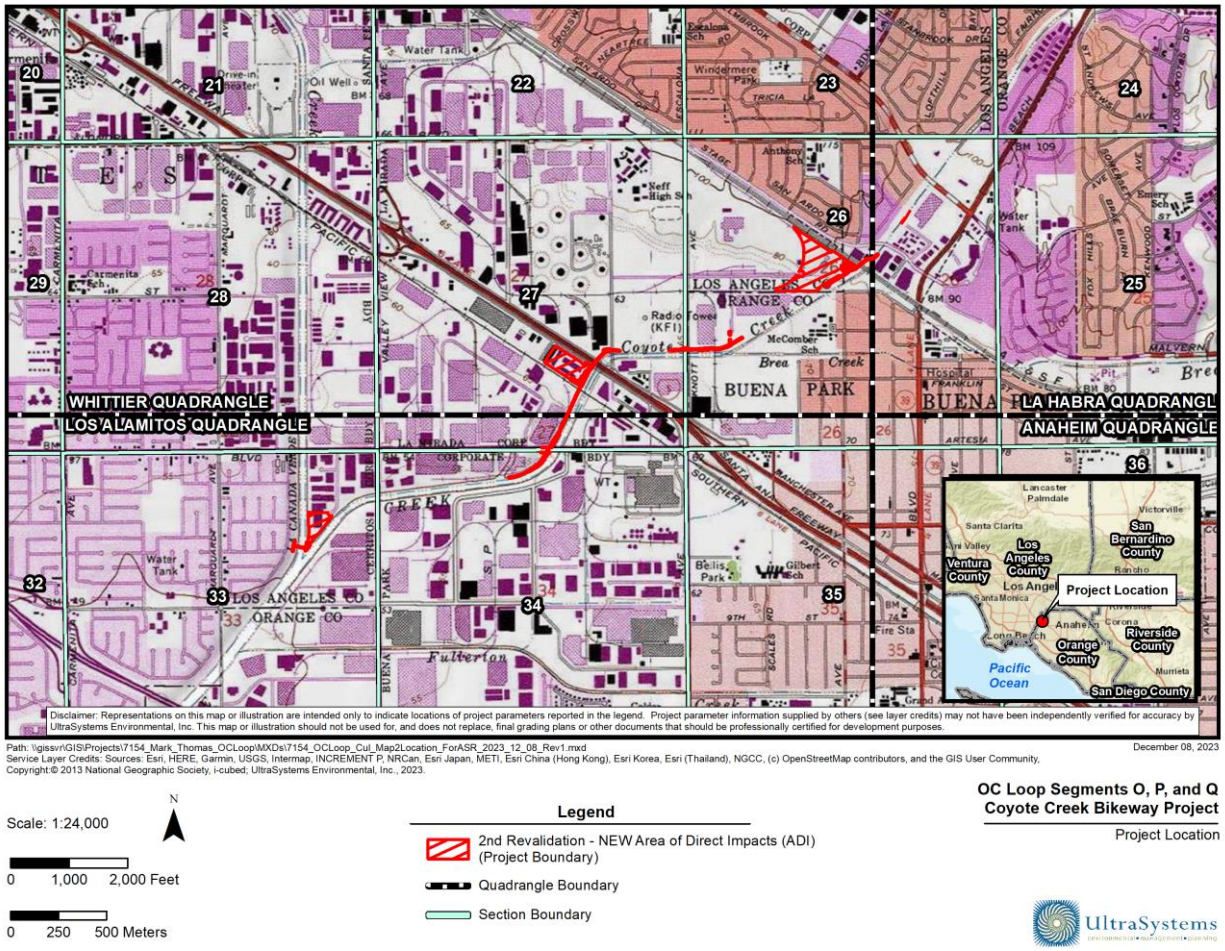
USGS (United States Geological Survey, U.S. Department of the Interior)
1974 *Whittier, Calif*. 7.5', 1:24,00. USGS orthophoto quadrangle. Aerial photographs taken on November 6, 1974.

PREPARERS QUALIFICATIONS

Stephen O'Neil is the principal investigator for this SASR. Mr. O'Neil meets the Professional Qualified Staff (PQS) Standards in Section 106 PA Attachment 1 as a Principal Investigator - Prehistoric Archaeology. He earned a B.A. degree in anthropology from California State University, Long Beach, in 1979; and an M.A. degree in cultural anthropology from California State University, Fullerton, in 2002. He is a Registered Professional Archaeologist (#16104). He has over 40 years of experience as a cultural resource specialist in California, during which time he has prepared seven prior ASRs for Caltrans Districts 6, 7, 8 and 12. Megan B. Doukakis, Co-Principal Investigator - Prehistoric Archaeology, assisted Mr. O'Neil in the preparation of this SASR. Ms. Doukakis earned a B.A. degree in anthropology from California State University, Long Beach, in 2011; and an M.A. degree in public archaeology from California State University, Northridge, in 2018. She has over nine years of experience as a cultural resource specialist in California. Other components of the study, including historical background research and consultation with local community representatives, were carried out by Project historian Terri Jacquemain (M.A., public history, University of California, Riverside, 2004).

MAPS

The Study Vicinity Map is provided in **SHPSR Attachment A, Map 1**, and the Study Location Map is provided in **SHPSR Attachment A, Map 2**.



Survey Coverage Map

SITE RECORDS

The DPR site record for the Coyote Creek Channel (see **Sources Consulted** above) may be found in **SHPSR Attachment B, Part 1** [**HPSR Attachment E: HRER]**.

ATTACHMENT C
ARCHAEOLOGICAL SURVEY REPORT

OC LOOP SEGMENTS O, P, AND Q
COYOTE CREEK BIKEWAY PROJECT

Appendix 1
CHRIS Records Search Documentation
(Confidential)

Report List

7034 GHD_OCLoop

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-03356		1982	Romani, John F.	Archaeological Survey Report for the Route I-5 Santa Ana Transportation Corridor Route 405 in Orange County to Route 605 in Los Angeles County P.m. 21.30/44.38 0.00/6.85	Caltrans	
LA-03371		1996	Maki, Mary K	Negative Phase 1 Archaeological Survey of 3.4 Acres West of Trojan Way Street From Desman Road to Firestone Boulevard, City of La Mirada, Los Angeles County, California	Fugro West, Inc.	
LA-04152		1998	Mason, Roger D. and Bonner, Wayne H.	Cultural Resources Records Search and Survey Report for a Pacific Bell Mobile Services Telecommunications Facility: La-316-03 City of La Mirada, California	Chambers Group, Inc.	
LA-04834		1999	Ashkar, Shahira	Cultural Resources Inventory Report for Williams Communications, Inc. Proposed Fiber Optic Cable System Installation Project, Los Angeles to Anaheim, Los Angeles and Orange Counties	Jones & Stokes Associates, Inc.	19-186110, 19-186111, 30-176630
LA-05199		2001	Duke, Curt	Cultural Resource Assessment Cingular Wireless Facility No. Sm 083-02 Los Angeles County, Ca	LSA Associates, Inc.	
LA-06174		2001	Duke, Curt	Cultural Resource Assessment Cingular Wireless Facility No. Sm 083-02 Los Angeles County, California	LSA Associates, Inc.	
LA-07730		2006	Hudlow, Scott M.	A Phase I Cultural Resources Survey for Kfi Tower Project, City of La Mirada, California	Hudlow Cultural Resource Associates	19-187549
LA-07844		1998	Kane, Diane	Historic Architectural Survey Report for I-5 Hov Lane Improvement Project	California Department of Transportation, District 7	

Report List

7034 GHD_OCLoop

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-07871		2003	Tang, Bai "Tom" and Teresa Woodard	Historical Resource Compliance Report - Third Main Track and Grade Seperation Project Hobart (mp 148.9) to Basta (mp 163.3), Bnsf/metrolink East-west Main Line Railroad Track, Vernon to Fullerton, Los Angeles and Orange Counties, California	CRM Tech	19-186753, 19-186754, 19-186755, 19-186756, 19-186757, 19-186758, 19-186759, 19-186760, 19-186761, 19-186762, 19-186763, 19-186764, 19-186765, 19-186766, 19-186767, 19-186768, 19-186769, 19-186770, 19-186771, 19-186772, 19-186773, 19-186774, 19-186775, 19-186776, 19-186777, 19-186778, 19-186779, 19-186780, 19-186781, 19-186782, 19-186783, 19-186784, 19-186785, 19-186786, 19-186787, 19-186788, 19-186789, 19-186790, 19-186791, 19-186792, 19-186793, 19-186794, 19-186795, 19-186796, 19-186797, 19-186798, 19-186799, 19-186800, 19-186801, 19-186804, 30-176663
LA-08255		2006	Arrington, Cindy and Nancy Sikes	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and Ii	SWCA Environmental Consultants, Inc.	
LA-09117		2007	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for Royal Street Communications, LLC Candidate LA0858D (Messe, Inc.), 16404 Knott Avenue, La Mirada, Las Angeles County, California	Michael Brandman Associates	19-186804, 19-187549
LA-11498		2011	Meyer, Donna	Section 106 Consultation for Installation of Communications Equipment for Integrated Public Alert and Warning System, La Mirada, Los Angeles County	Federal Emergency Management Agency	
OR-00121		1976	Desautels, Roger J.	Archaeological Survey Report on a Parcel of Land Located in the City of La Palma, Orange County	Scientific Resource Surveys, Inc.	
OR-00424	Paleo -	1979	Desautels, Roger J.	Cultural Resources Report on an Archaeological, Historical and Paleontological Records Search and Survey of Approximately 3 Acres of Property Located in Buena Park, California	Scientific Resource Surveys, Inc.	

Report List

7034 GHD_OCLoop

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
OR-00814		1982	Romani, John F.	ARCHAEOLOGICAL SURVEY REPORT for the Route I-5 Santa Ana Transportation Corridor, Route 405 in Orange County to Route 605 in Los Angeles County Pm 21.30/44.38; 0.00/6.85	Caltrans	
OR-01671		1997	Mason, Roger D.	Cultural Resources Records Search and Literature Review Report for a Pacific Bell Mobile Services Telecommunications Facility: Cm 085-04, in the City of La Palma, Ca.	Chambers Group, Inc.	
OR-02094		1999	Ashkar, Shahira	Cultural Resources Inventory Report for Williams Communications, Inc. Proposed Fiber Optic Cable System Installation Project, Los Angeles to Anaheim, Los Angeles and Orange Counties	Jones & Stokes Associates, Inc.	19-186110, 19-186111, 30-176630
OR-02608		2003	Duke, Curt	Cultural Resource Assessment Cingular Wireless Facility No. Cm 085-04 Orange County, California	LSA Associates, Inc.	
OR-02609		2003	Duke, Curt	Request for Shpo Review of Fcc Undertaking 5600 Fresca Dr., La Palma, California	LSA Associates, Inc.	
OR-02793		2001	Bonner, Wayne H.	Records Search Results for Sprint PCS Facility OG54XC458A (Gordon Square Shopping Center), 5301 Beach Blvd., Buena Park, Orange County, California	Michael Brandman Associates	
OR-02806		2002	Duke, Curt	Cultural Resource Assessment at & T Wireless Services Facility No. 13018a Orange County, California	LSA Associates, Inc.	
OR-03045		2005	Demcak, Carol R.	Report of Archaeological Assessment for Beach Boulevard/malvern Avenue Intersection Improvement, City of Buena Park, California	Archaeological Resource Management Corp.	
OR-03276		1998	Kane, Diane	Historic Architectural Survey Report for I-5 Hov Lane Improvement Project	California Department of Transportation, District 7	
OR-03298		2003	Tang, Bai "Tom" and Teresa Woodard	(see LA7871) Historical Resource Evaluation Report Third Main Track and Grade Seperation Project Hobart (mp 148.9) to Basta (mp 163.3), Bnsf/metrolink East-west Main Line Railroad Track, Vernon to Fullerton, Los Angeles and Orange Counties, California	CRM Tech	

Report List

7034 GHD_OCLoop

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
OR-03373		2006	Arrington, Cindy and Nancy Sikes	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and Ii	SWCA Environmental Consultants, Inc.	

2/18/20

7034 GHD OCLoop 11:30 -

La Habra.

OR-424	19-186804 } train
OR-3045	30-176663
2793	120020
3298	
2806	

Los Alamitos

OR 814 } 1 Record	30-176630
LA 3356	
OR 3373 } 1 Record	
LA 8255	
LA 5199	
OR 121	
OR 1671 } same?	
OR 2608	
OR 3276 } 1 Record.	
LA 7844.	
OR 2609	
OR 2094 } 1 Record	
LA 4834	
LA 6174	

Whittier Quad

LA 4834 2094	30-176663 continued
LA 8255 same as OR 3373	187549
LA 7844 } 1 Record	186110
OR 3276	
OR 3298 } 1 Record	
LA 7871	
LA 3356 814	
LA 4152	
LA 7730 } same	
LA 11498	
LA 9117	
LA 3371	

Hard copies Needed:

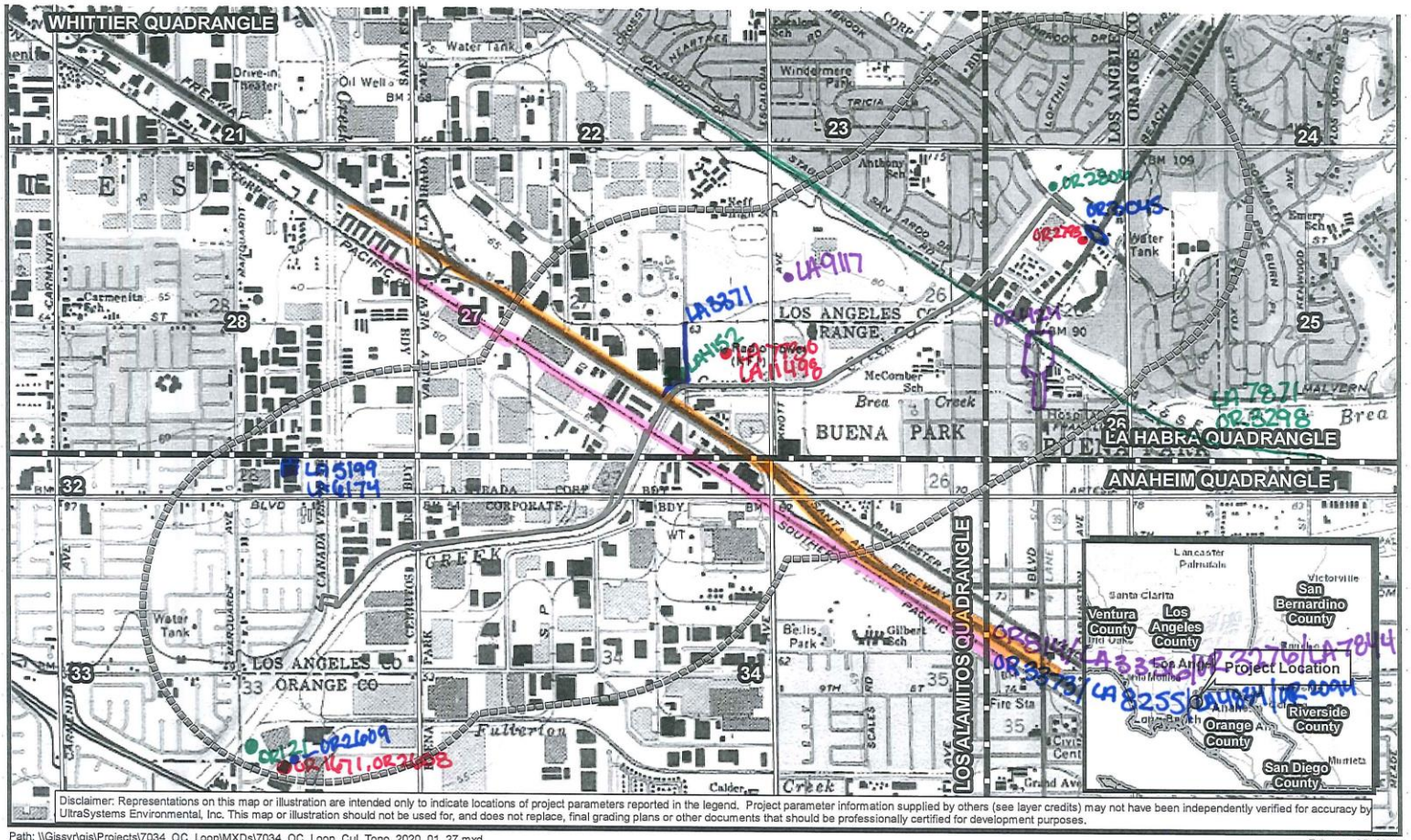
OR-3045	~~OR~~ 2609	~~LA~~ 5199
~~OR~~ 2793		~~LA~~ 6174
~~OR~~ 2806		
~~OR~~ 1671		
~~OR~~ 2608		

Whittier Quad

LA 4834 2094	30-176663 continued
LA 8255 same as OR 5273	187549
LA 7844 } 1 Record	186110
OR 3276	
OR 3298 } 1 Record	
LA 7871	
LA 3356 814	
LA 4152	
LA 7730 } same	
LA 11498	
LA 9117	
LA 3371	

Hard copies Needed:

OR-3045 ~~OR~~ 2609	~~LA~~ 5199
~~OR~~ 2793	~~LA~~ 6174
~~OR~~ 2806	
~~OR~~ 1671	
~~OR~~ 2608	



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Cul_Topo_2020_01_27.mxd

February 05, 2020

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community,
Copyright:© 2013 National Geographic Society, i-cubed; CA Dept. of Conservation, 2011; UltraSystems Environmental, Inc., 2020

N

Scale: 1:24,000

0 1,000 2,000 Feet

0 250 500 Meters

Reports 25

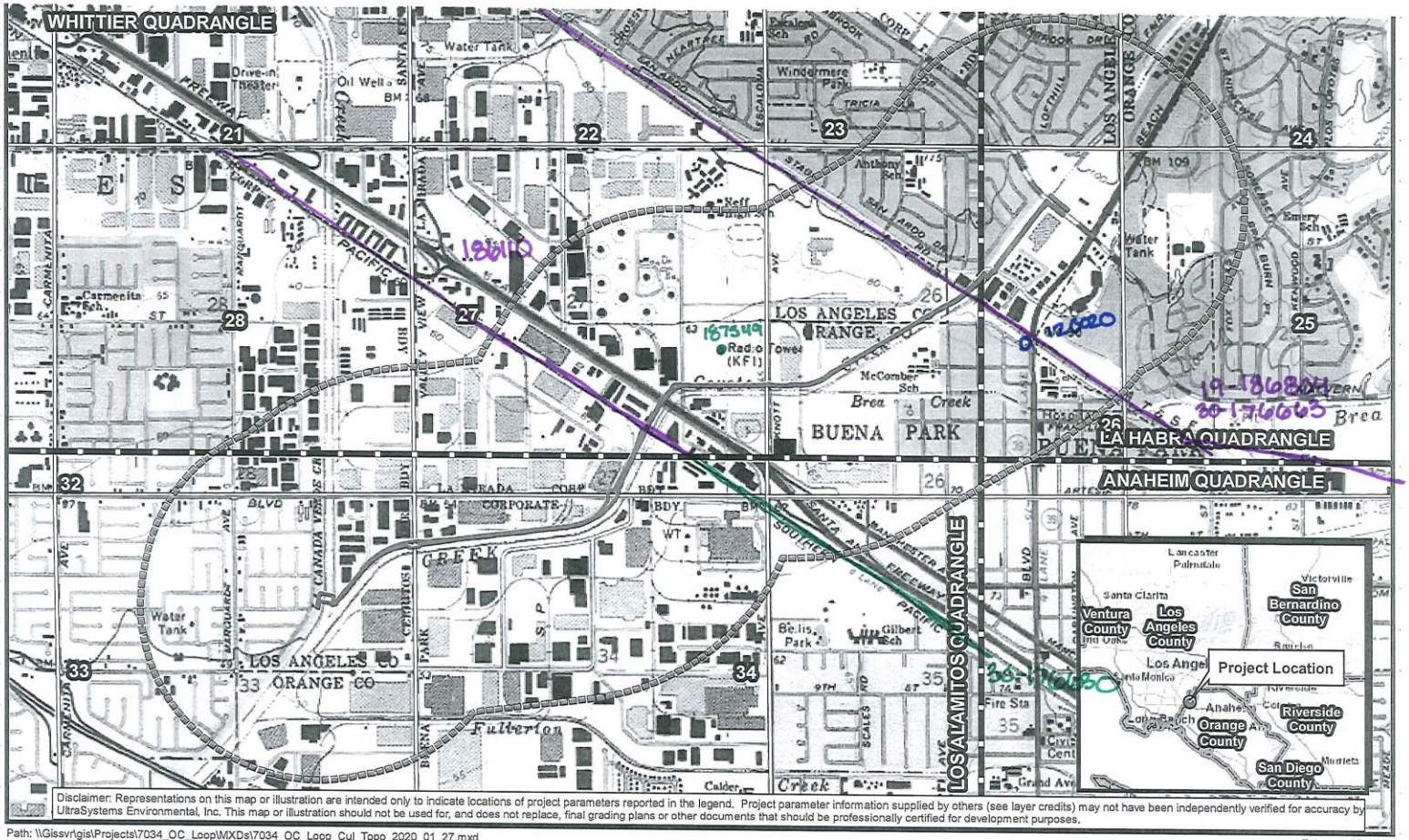
Legend

- Project Boundary
- Half-Mile Radius
- Quadrangle Boundary
- Section Boundary

OC Loop Segments O, P, and Q

Topographic Map
USGS Quadrangle: La Habra, Los Alamitos, Whittier
Township: 3S Range: 11W
Sections 26, 27, 33, 34

UltraSystems



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\Gissvr\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Cul_Topo_2020_01_27.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community,
Copyright:© 2013 National Geographic Society, i-cubed; CA Dept. of Conservation, 2011; UltraSystems Environmental, Inc., 2020

February 05, 2020

N

Scale: 1:24,000

0 1,000 2,000 Feet

0 250 500 Meters

Legend

- Project Boundary
- Half-Mile Radius
- Quadrangle Boundary
- Section Boundary

OC Loop Segments O, P, and Q

Topographic Map
USGS Quadrangle: La Habra, Los Alamitos, Whittier
Township: 3S Range: 11W
Sections 26, 27, 33, 34

UltraSystems

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 19-186110
HRI #
Trinomial 30-176630
NRHP Status Code
Other Listings
Review Code _____ Reviewer _____ Date _____

Page 1 of 14 *Resource Name or #: (Assigned by Recorder) C-Los Angeles-A-1

P1. Other Identifier: Union Pacific Railroad

*P2. Location: ☐ Not for Publication ☒ Unrestricted *a. County Los Angeles and Orange

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad see below Date _____ T _____; R _____; ____ ¼ of ____ ¼ of Sec ____; _____ B.M.

c. Address _____ City _____ Zip _____

d. UTM: (Give more than one for large and/or linear resources) Zone: _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)

This segment of the railroad is located on the following USGS quads: Los Angeles (1966, PR 1981), South Gate (1964, PR 1981), Whittier (1965, PR 1981), Los Alamitos (1964, PR 1981), and Anaheim (1965, PR 1981).

*P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

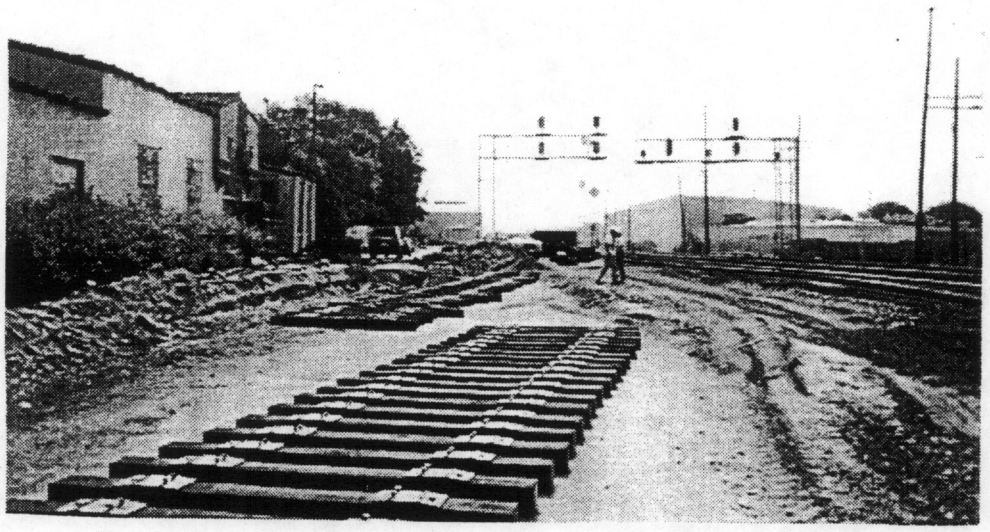
The Union Pacific Railroad is a standard gauge railroad which runs through the Los Angeles area. It is part of a larger resource, the Union Pacific Railroad line. Numerous associated features include railroad stations, sidings, spurs, and railyards.

The rail lines that were included in our survey areas were all acquired by Union Pacific, but were originally other railroad lines. These include the Southern Pacific, the Pacific Electric, the Los Angeles and San Pedro railroad, and the Los Angeles and Salt Lake Railroad. The Southern Pacific through Los Angeles area was constructed in the 1870s, and originally ran south from Los Angeles through Watts and Compton to Willmington, and east from Los Angeles through Alhambra, San Gabriel, Puente, Pomona and on through Colton before heading toward Yuma. (See continuation sheet.)

*P3b. Resource Attributes: (List attributes and codes) HP39. Other - Railroad

*P4. Resources present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (View, date, accession #) Railroad overview, Los Angeles

*P6. Date Constructed/Age and Sources: ☒ Historic ☐ Prehistoric ☐ Both
1870s-present

*P7. Owner and Address:
Union Pacific Railroad

*P8. Recorded by: (Name, affiliation, and address) S. Ashkar
Jone s & Stokes Associates, Inc.
2600 V Street, Suite 100
Sacramento, CA 95818

*P9. Date Recorded: 6/22/99

*P10. Survey Type: (Describe)
Cursory and Intensive pedestrian surveys

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Jones & Stokes. 1999. Cultural Resources Inventory Report for Williams Communications, Inc. Proposed Fiber Optic Cable System Installation Project, Los Angeles to Anaheim, Los Angeles and Orange Counties

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List): _____

DPR 523A (1/95) *Required Information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 19-186110
HRI # 30-176630

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 14

*NRHP Status Code

*Resource Name or # (Assigned by recorder) C-Los Angeles-A-1

B1. Historic Name: Southern Pacific Railroad

B2. Common Name: Union Pacific Railroad

B3. Original Use: railroad B4. Present Use: railroad

*B5. Architectural Style:

*B6. Construction History: (Construction date, alterations, and date of alterations)

Major portion of track and associated spurs, sidings, and station were constructed between 1869 and 1905. The tracks are currently in use and maintenance and replacement continue.

*B7. Moved? [X] No [ ] Yes [ ] Unknown Date: Original Location:

*B8. Related Features:

Numerous sidings, spurs, stations and railyards

B9a. Architect: b. Builder:

*B10. Significance: Theme: Railroad Area: California, U.S.

Period of Significance: 1869 to present Property Type: railroad Applicable Criteria: A, B

(Discuss imporance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Portions of this railroad are additions to the first transcontinental railroad. Other portions were instrumental in the development of Los Angeles as a major business center, or other communities. The modern Union Pacific Railroad system is made up of other, often smaller historic railroads that helped to form the economy and population of Southern California. The rail system enabled the transportation of goods to ports and the emmigration of large numbers of people. The railroad is also associated with a number of important historical figures, including the Big Four (Mark Hopkins, Collis P. Huntington, Leland Stanford, and Charles Crocker). Therefore, the historic railroad is eligible for NRHP listing under Criteria A and B.

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References:

B13. Remarks:

(Sketch Map with north arrow required.)

*B14.Evaluator: S. Ashkar Jones & Stokes

2600 V Street, Suite 100 Sacramento, CA 95818-1914

*Date of Evaluation: 6/22/99

(This space reserved for official comments.)

P3a. Description

Another Southern Pacific Line headed southeast from Watts through Norwalk and Buena Park to Santa Ana.

The Pacific Electric was formed in 1902 by Henry E. Huntington, the nephew of railroad mogul Collis P. Huntington. In direct competition with the Southern Pacific Railroad, the Pacific Electric conntected 42 incorporated cities within a 35 mile radius of Los Angeles. The trains were know as the Big Red Cars, and prior to the popularization of automobiles provided the preferred means of transportation. At it's peak in 1926, the company operated 1,164 miles of track throughout the Los Angeles area. Henry Huntington sold his shared to Southern Pacific in 1910, and in 1911 Southern Pacific merged with other local railways to create the Pacific Electric Railway, which provided expanded the system. With the rise of the automobile, the Pacific Electric sold its passenger service to Metropolitan Coach Lines, which operated busses in 1953. Service between Los Angeles and Long Beach officially ended on April 8, 1961, signaling the end of the Big Red Cars. The rail line located within our project areas included the portion that rund down the center of Alhambra Avenue, though some of the rails have been removed. (Crump 1970.)

The Los Angeles and San Pedro Railroad was incorporated in February 1868 to build the first railroad in Southern California and construction began in 1869. The line connected the port of Wilmington and the city of Los Angeles. When the Southern Pacific was built through Los Angeles, the Southern Pacific received subsidies and the stock of the Los Angeles and San Pedro Railroad. The Southern Pacific consolidated with the Los Angeles and San Pedro Railroad in 1874 and the track became the Harbor Division of the Southern Pacific. (Dunscomb 1967; Robinson 1978.)

The San Pedro, Los Angeles and Salt Lake Railroad Company was formed in 1901 for the purpose of constructing a rail line between Los Angeles and Salt Lake City. The line formally opened on May 1, 1905. The line extended north from Los Angeles to Las Vegas and on to Salt Lake City. Other lines ran from Los Angeles south to Wilmington via Bells and Workman, and east from Los Angeles through Pico, Clayton, paralleling the Southern Pacific line through Walnut, Sprada and Ontario and dipping south from there towards Riverside. The name was shortened to the Los Angeles and Salt Lake in 1916. In 1921, the line became the southwestern arm of the Union Pacific. (Fickewirth 1992; Hofsommer 1986; Myrick 1992.)

The Southern Pacific eventually absorbed the smaller rail lines and the Southern Pacific emerged as the name for the system in 1884 when the Southern Pacific Company of Kentucky was incorporated. In the 1990s, the Union Pacific acquire the holdings of the Southern Pacific Company.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

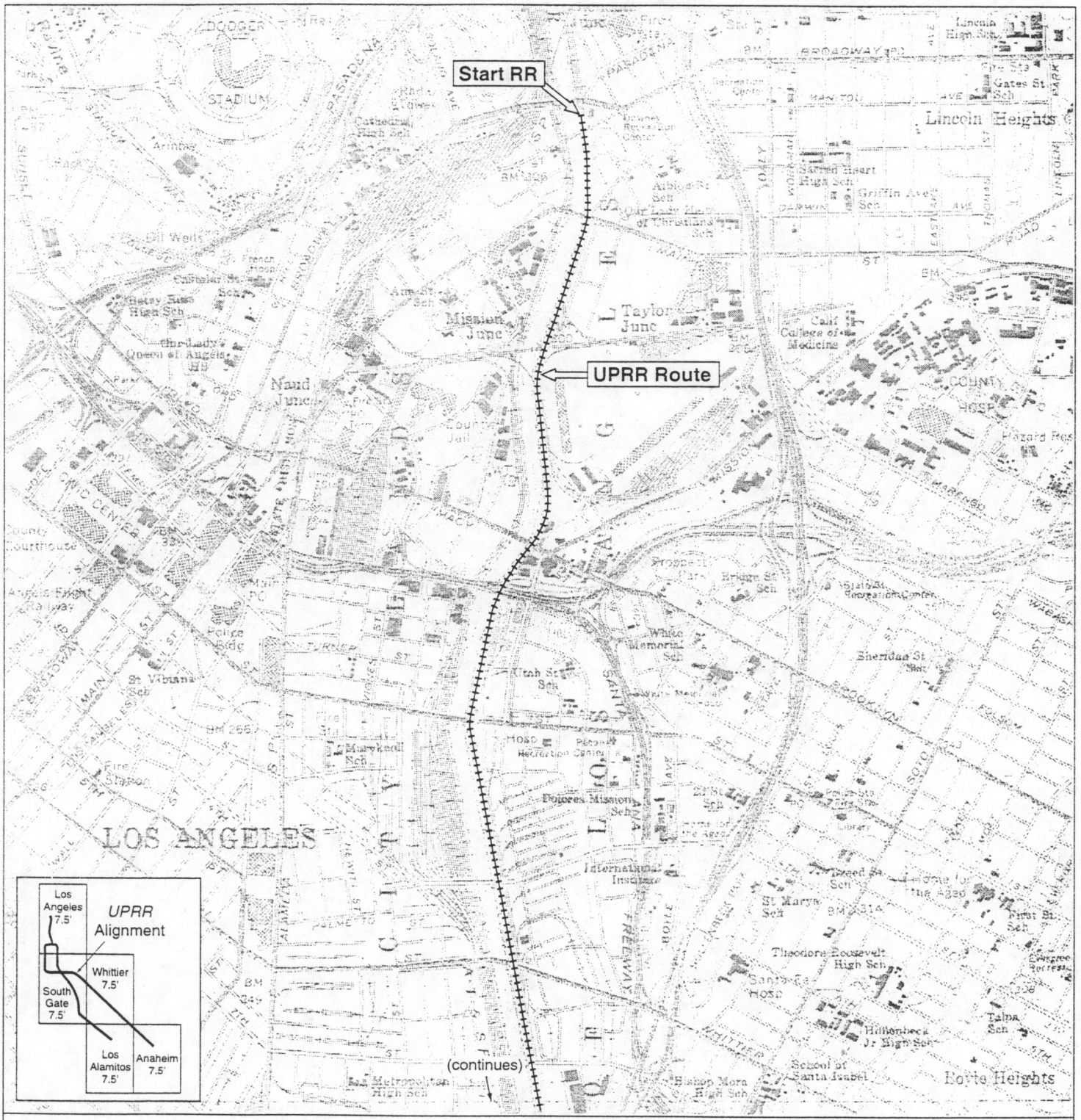
LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

Page 4 of 14

*Resource Name or #: UPRR Route

*Map Name: Los Angeles, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

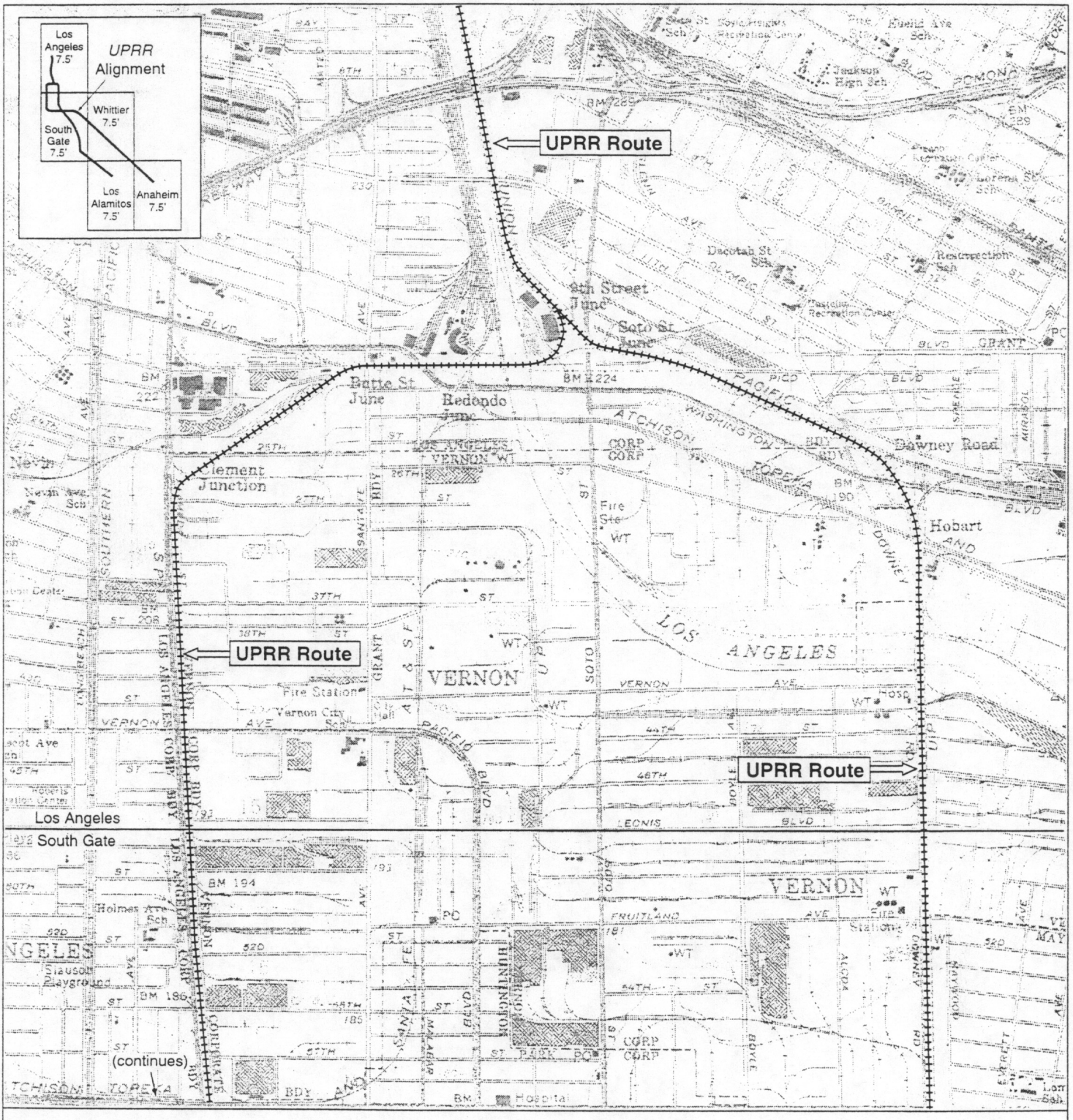
LOCATION MAP

Primary # 19-186110
HRI #
Trinomial 30-176630

Page 5 of 14

*Resource Name or #: UPRR Route

*Map Name: Los Angeles and South Gate, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



Base map: USGS 7.5'-series Los Angeles (1966, PR 1981), and South Gate, (1964, PR 1981) California quadrangles

DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

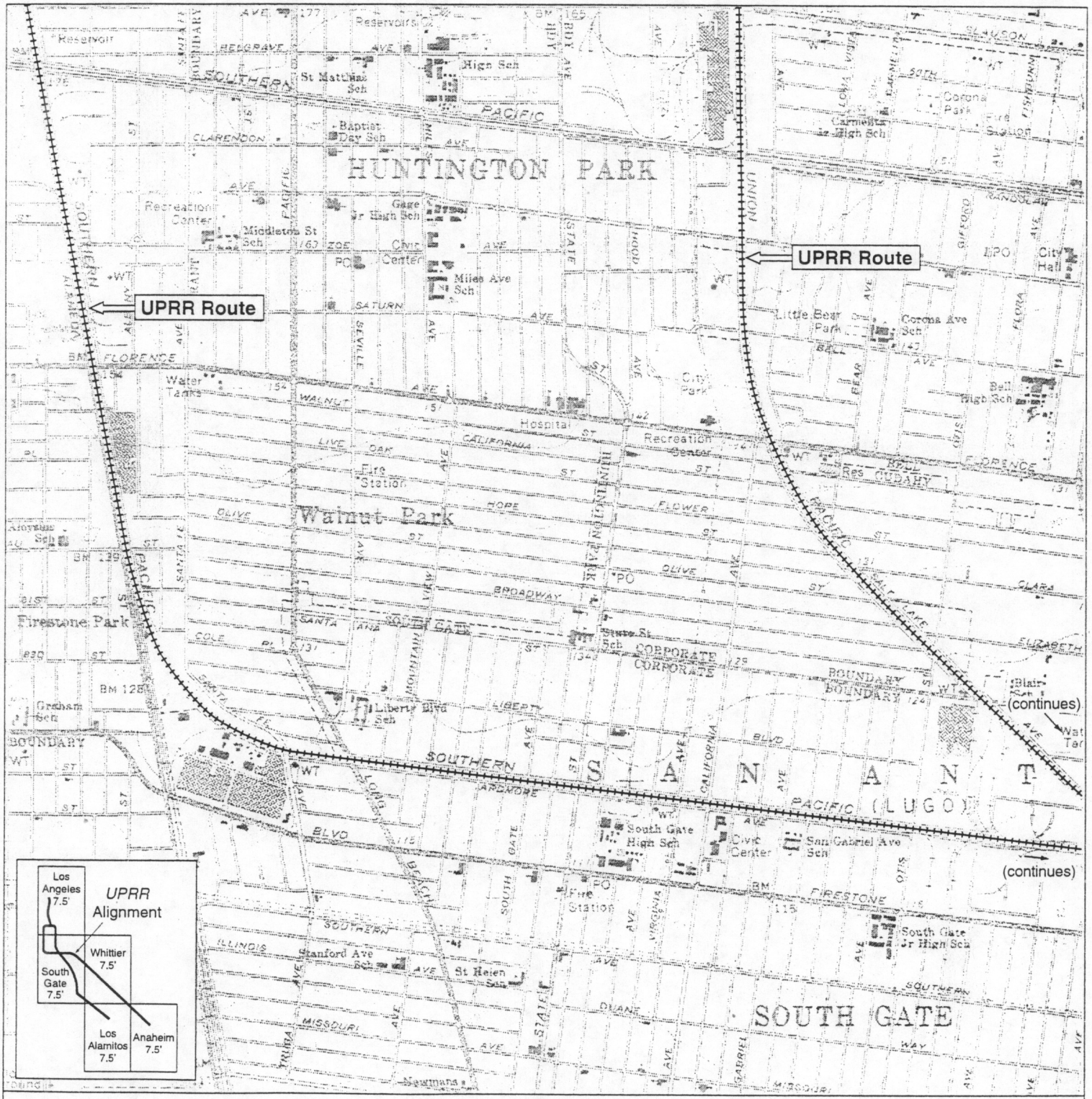
LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

Page 6 of 14

*Resource Name or #: UPRR Route

*Map Name: South Gate, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



Base map: USGS 7.5'-series South Gate, California quadrangle (1964, PR 1981)

DPR 523J (1/95)

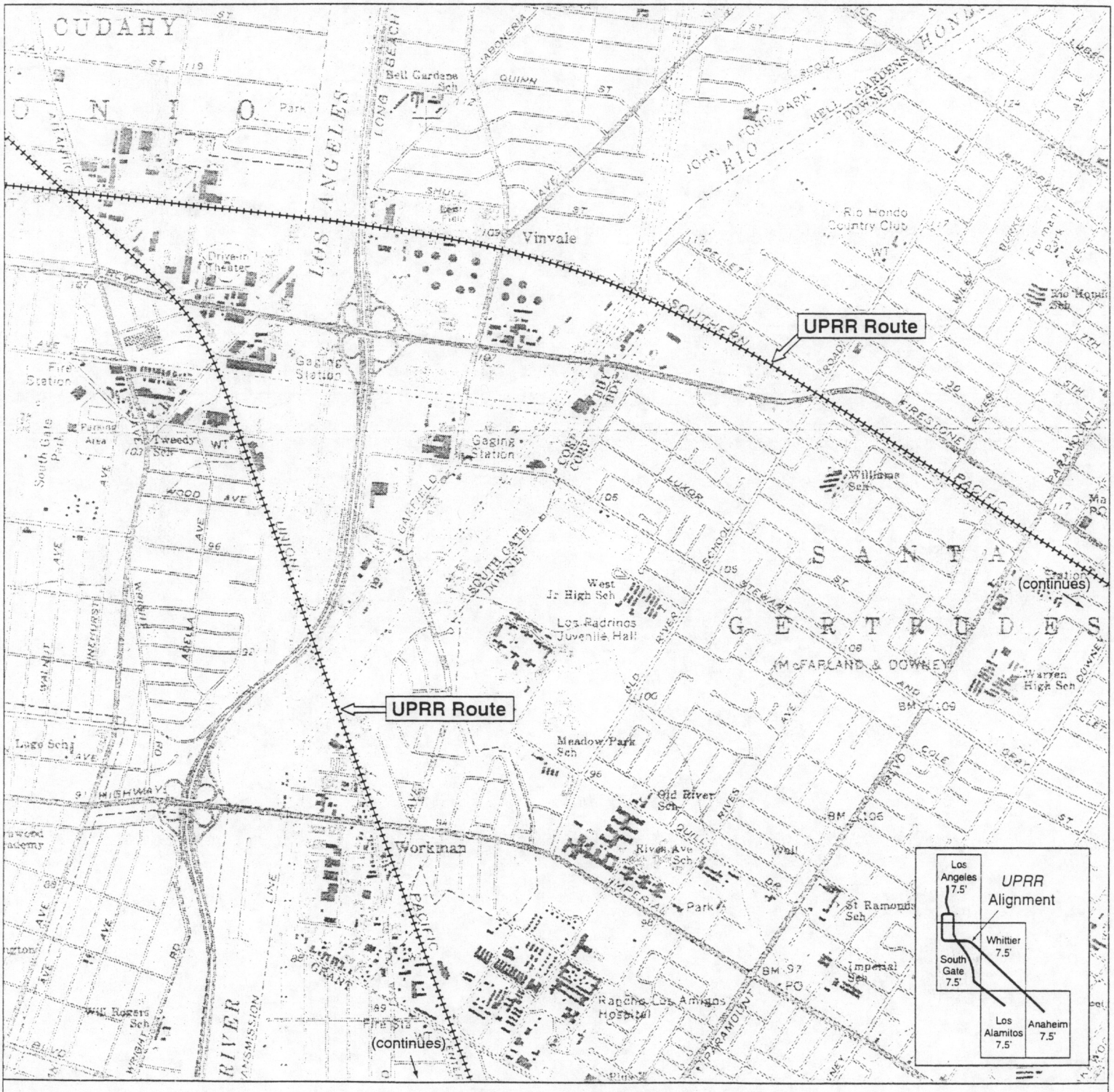
*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186110
HRI #
Trinomial 30-176630

Page 7 of 14
*Resource Name or #: UPRR Route
*Map Name: South Gate, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



Base map: USGS 7.5'-series South Gate, California quadrangle (1964, PR 1981)

DPR 523J (1/95)

*Required information

19-186110

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

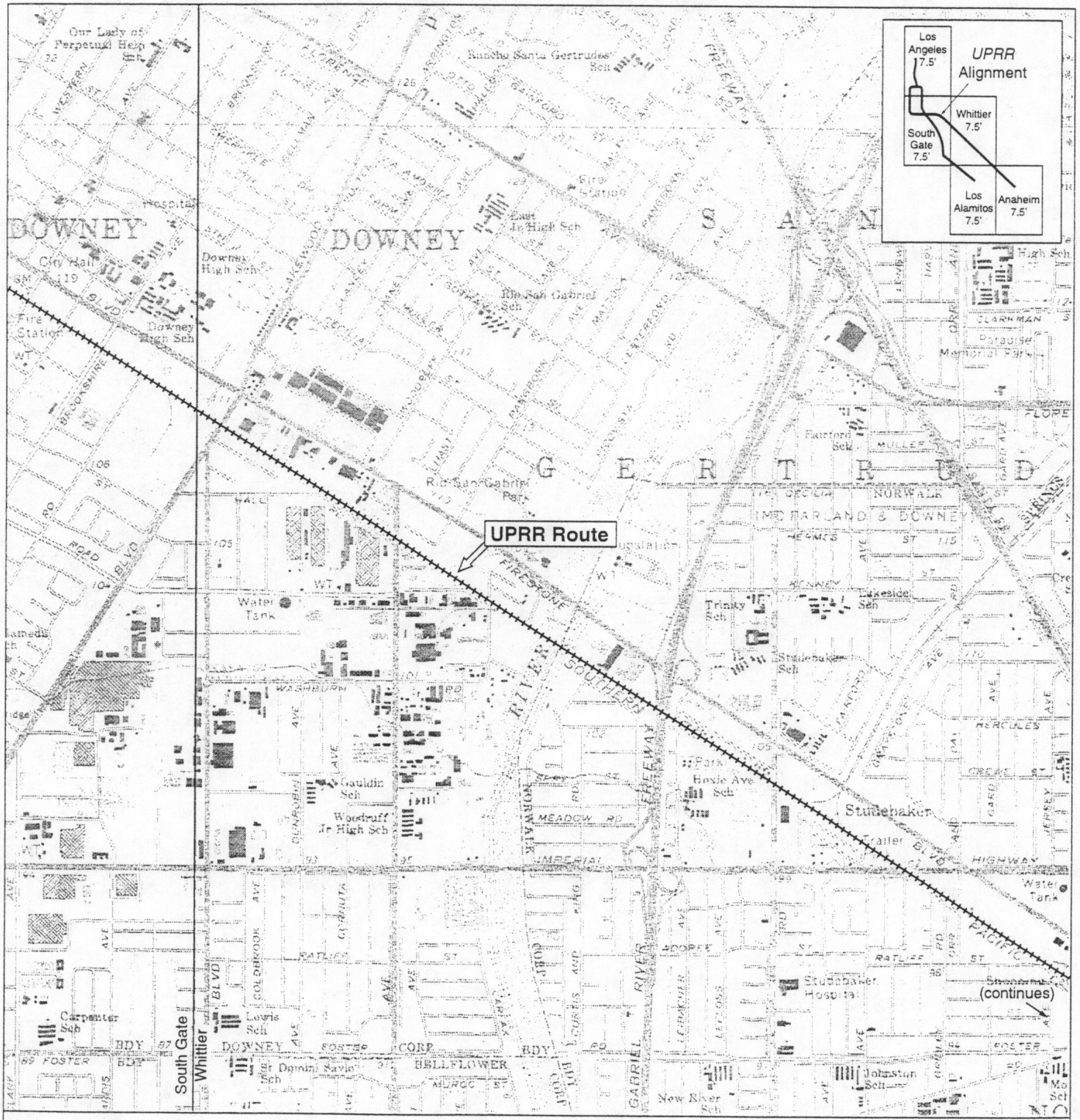
LOCATION MAP

Primary # 30-176630
HRI #
Trinomial

Page 8 of 14

*Resource Name or #: UPRR Route

*Map Name: South Gate and Whittier, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



0 1,000 2,000 3,000 4,000 5,000
feet
Scale = 1:24,000

Base map: USGS 7.5'-series South Gate (1964, PR 1981), and Whittier (1965, PR 1981), California quadrangles

TN 14i mN

DPR 523J (1/95)

*Required information

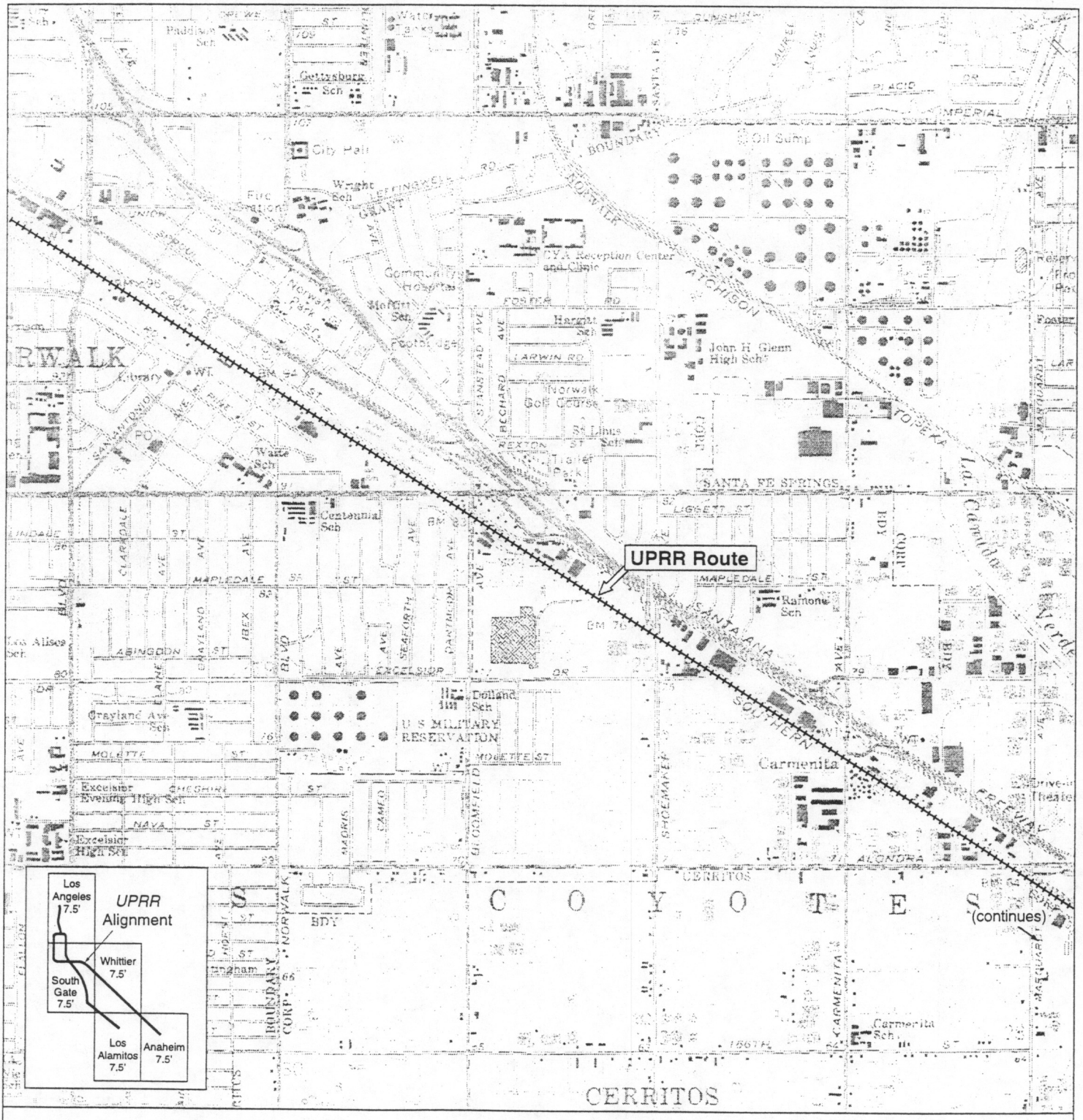
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

*Resource Name or #: UPRR Route

*Map Name: Whittier, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981


UPRR Route
(continues)
Los Angeles 7.5'
UPRR Alignment
Whittier 7.5'
South Gate 7.5'
Los Alamitos 7.5'
Anaheim 7.5'
SANTA FE SPRINGS
CERRITOS
Carmenita
U S MILITARY RESERVATION
Norwalk Golf Course
Joan H Glenn High Sch
Centennial Sch
Dolland Sch
Ramona Sch
Carmenita Sch
Excelsior Evening High Sch
Excelsior High Sch
Los Alisos Sch
Gettysburg Sch
Wright Sch
Waite Sch
St Linus Sch
Harnett Sch
Foster Sch
Paddison Sch
Library
City Hall
Fire Station
Community Hospital
VA Reception Center and Clinic
Oil Sump
Tiger Park
Golf Course
Grayland Ave Sch
Norwalk Blvd
Santa Ana Freeway
Southern Pacific
Atchison Topeka
Pioneer Blvd
Imperial Hwy
Alondra Blvd
Foster Rd
Larwin Rd
Rosecrans Ave
Marquardt Ave
Carmenita Rd
Maple Dale St
Excelsior Dr
Abingdon St
Molette St
Nava St
Gridley Rd
Pioneer Blvd
Placid Ave
Laurel Ave
Santa Fe Ave
Union Pacific
Norwalk Blvd
Clarkdale Ave
Seaforth Ave
Dartmoor Ave
Shoemaker Ave
Gridley Rd
Bloomfield Ave
Maris Ave
Camino
Elaine
Rex
Bex
Gaylord
Excelsior
Abingdon
Molette
Nava
Alondra
Cerritos
Foster
Larwin
Rosecrans
Marquardt
Carmenita
Pioneer
Gridley
Shoemaker
Bloomfield
Maris

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

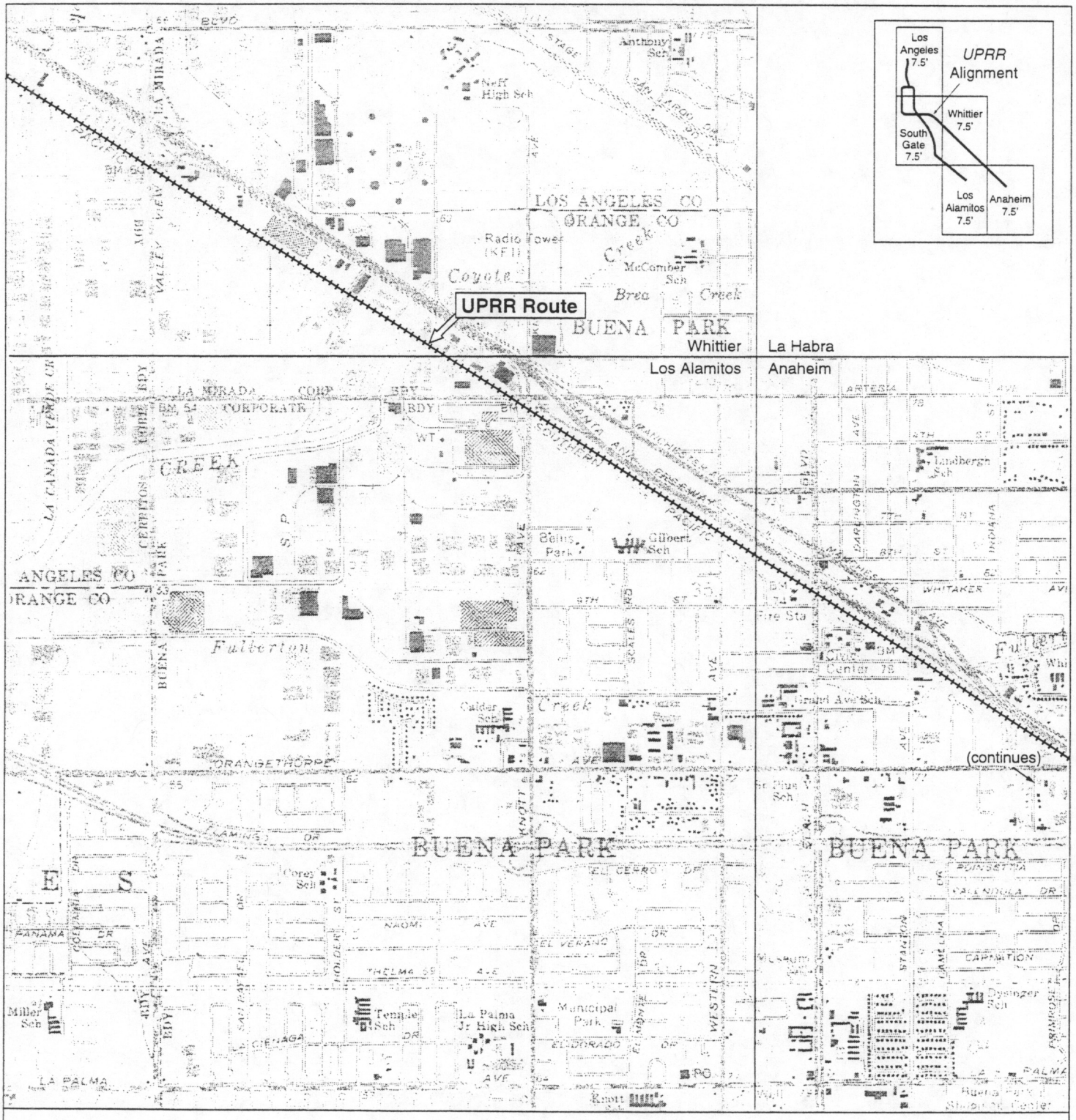
LOCATION MAP

Primary # 19-186110
30-176630
HRI #
Trinomial

Page 10 of 14

*Resource Name or #: UPRR Route

*Map Name: Whittier, Los Alamitos, Anaheim California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



Base map: USGS 7.5'-series Whittier, Los Alamitos, and Anaheim, California quadrangles (PR 1981)

DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

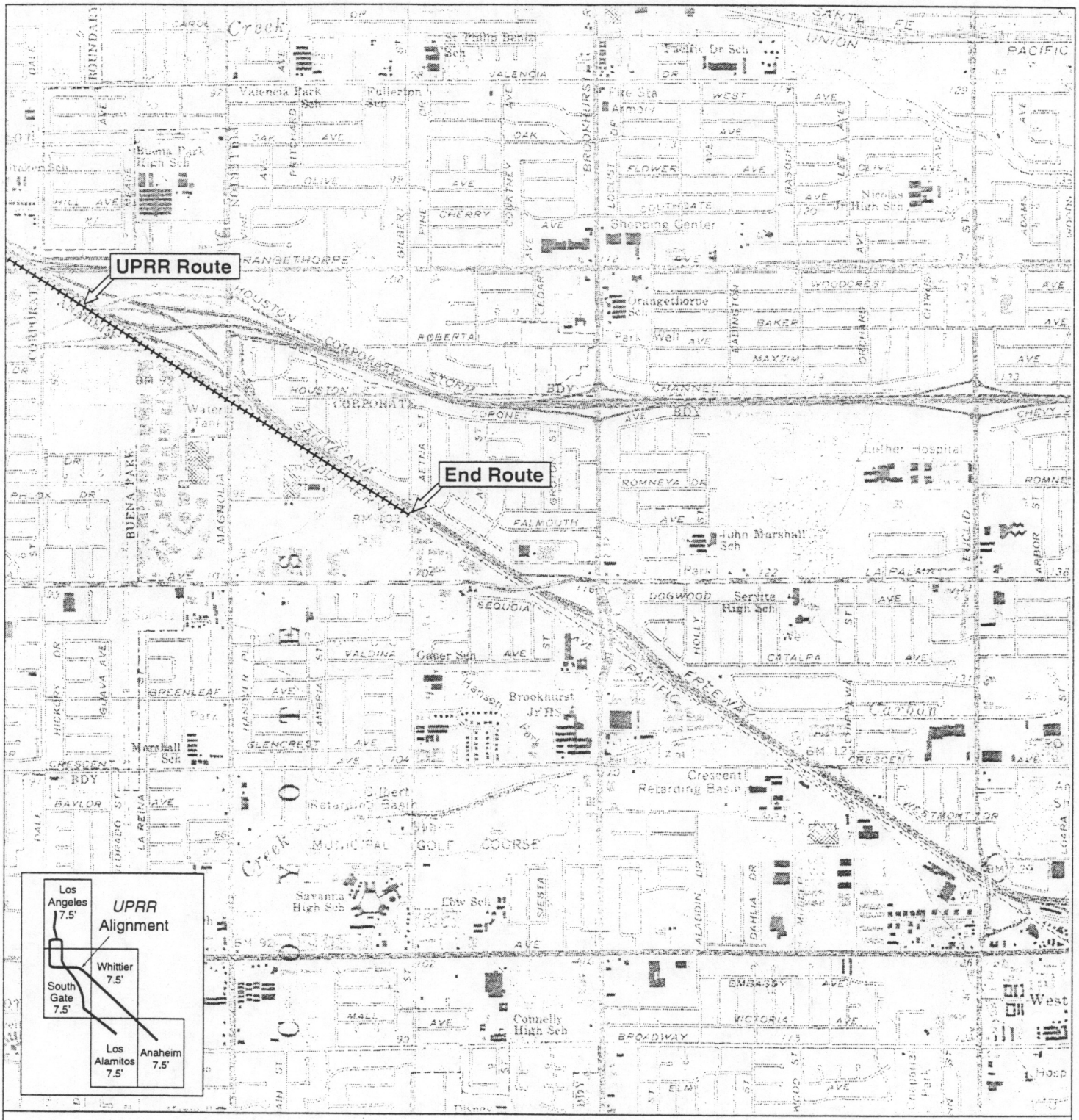
LOCATION MAP

Primary # 19-186110
HRI #
Trinomial 30-176630

Page 11 of 14

*Resource Name or #: UPRR Route

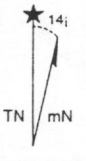
*Map Name: Anaheim California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981





0 1,000 2,000 3,000 4,000 5,000
feet
Scale = 1:24,000

Base map: USGS 7.5'-series Anaheim, California quadrangle (1965; PR 1981)



DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

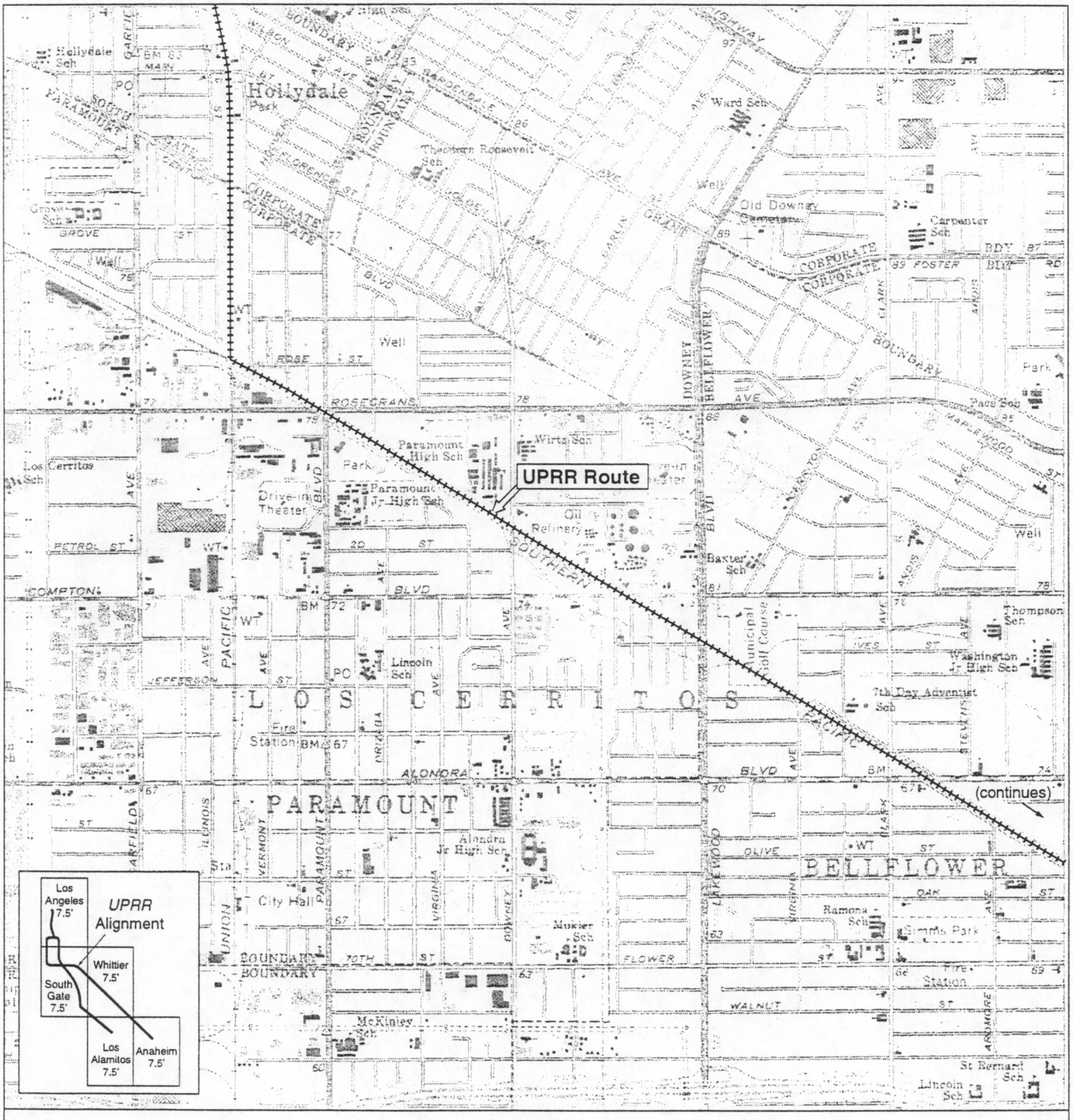
LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

Page 12 of 14

*Resource Name or #: UPRR Route

*Map Name: South Gate, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



0 1,000 2,000 3,000 4,000 5,000
feet
Scale = 1:24,000

Base map: USGS 7.5'-series South Gate, California quadrangle (1964, PR 1981)

TN mN

DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

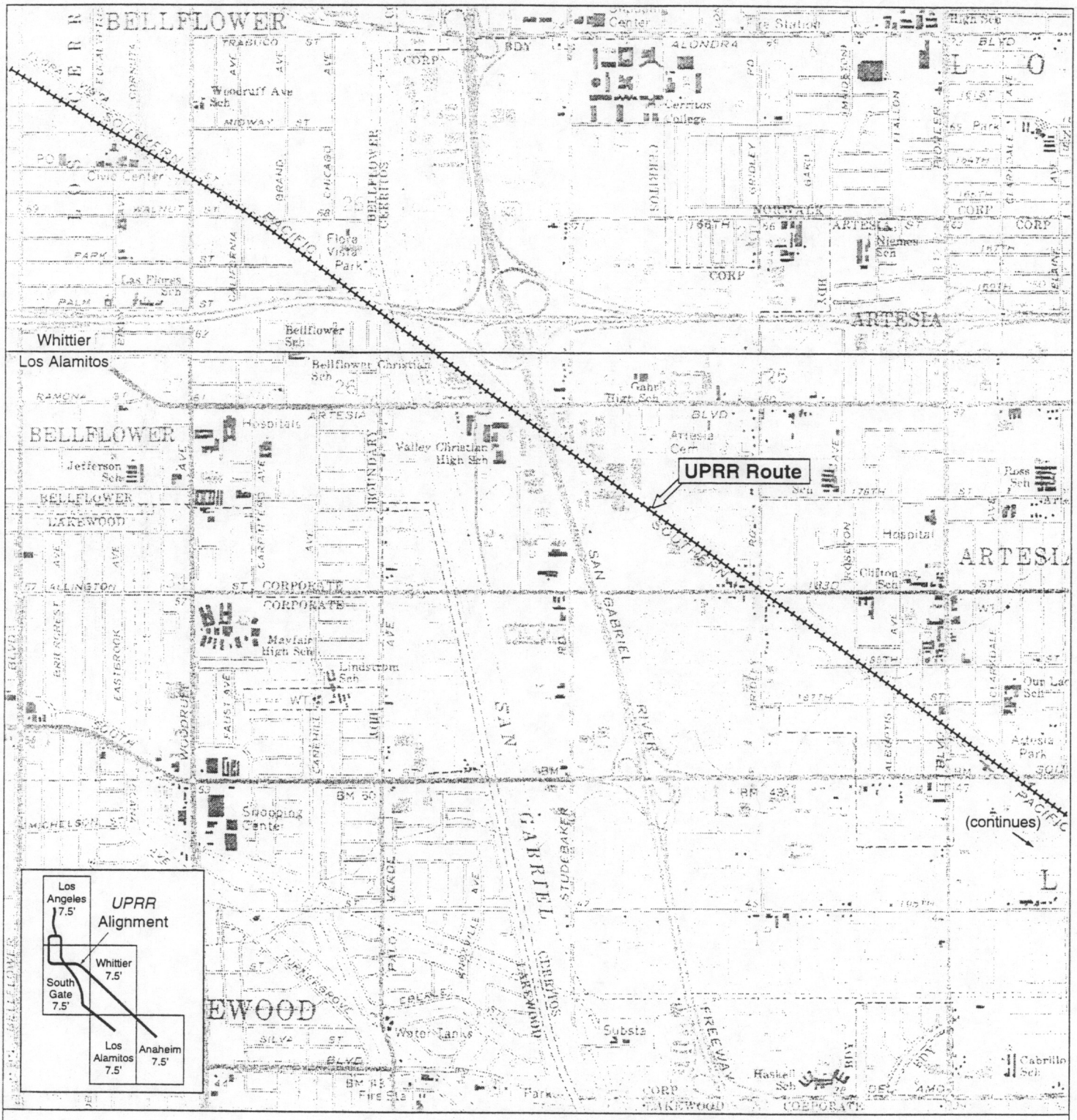
LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

Page 13 of 14

*Resource Name or #: UPRR Route

*Map Name: Whittier and Los Alamitos, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



0 1,000 2,000 3,000 4,000 5,000
feet
Scale = 1:24,000

Base map: USGS 7.5'-series Whittier (1965, PR 1981), and Los Alamitos (1964, PR 1981),California quadrangles

TN mN 14i

DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

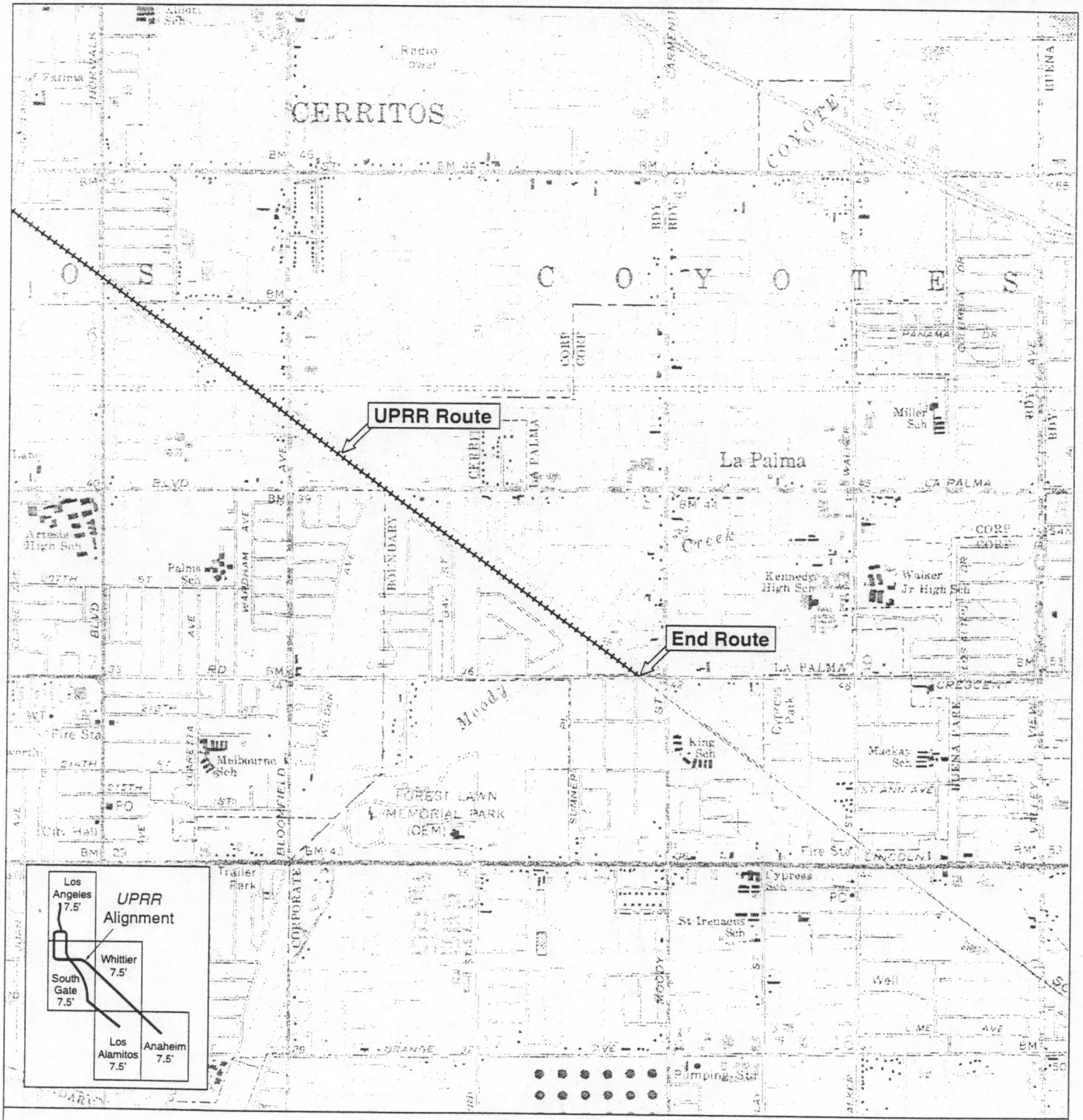
LOCATION MAP

Primary # 19-186110
HRI # 30-176630
Trinomial

Page 14 of 14

*Resource Name or #: UPRR Route

*Map Name: Los Alamitos, California *Scale: 1:24,000 (1"=2,000') *Date of Map: PR 1981



Base map: USGS 7.5'-series Los Alamitos, California quadrangle (1964, PR 1981)

DPR 523J (1/95)

*Required information

Applied EarthWorks, Inc.

PRIMARY RECORD

Primary # 19-186110 Supplement
HRI # 30-176630
Trinomial
NRHP Status Code

Other Listings Union Pacific Railroad/Hobart Tower
Review Code **Reviewer** **Date**

P1. Temporary Number/Resource Name: Hobart Tower

P2. Location: **a. County** Los Angeles , California ☐ Not for publication ☒ Unrestricted
b. USGS 7.5' Quad Los Angeles, CA. **Date** 1966, photorevised 1981, 1994
T. 2S, **R.** 13W ; **of** **of** **of** **Sec.** Not sectioned
c. Address: **City** **Zip**
d. Zone 11 , 3763940 **mE/** 388860 **mN**
e. Other Locational Data (e.g., parcel #, legal description, directions to resource, additional UTMs, etc., when appropriate): The segment of the Union Pacific Railroad recorded previously under this Primary Number is located on the following USGS quads: Los Angeles, (1966, photorevised 1981); South Gate (1964, photorevised 1981); Whittier (1965, photorevised 1981); Los Alamitos (1964, photorevised 1981); and Anaheim (1965, photorevised 1981). The Hobart Tower is specifically located east of Downey Road and north of E. 26th St., west of the Hobart Yard and east of the Union Pacific Railroad line; the Burlington Northern Santa Fe Railroad is located south of the Hobart Tower.

P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): The Union Pacific Railroad is a standard gauge railroad that runs through the Los Angeles area. It is part of a larger resource, the Union Pacific Railroad line. Numerous associated features include railroad stations, sidings, spurs, and rail yards. This supplemental record is specifically for the Hobart Tower (see Building, Structure, Object Record).

P3b. Resource Attributes (List attributes and codes): HP 39 – other: Railroad; HP 17– Railroad Switching Tower

P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of district ☐ Other:

P5. Photograph or Drawing: (Photograph required for buildings, structures, and objects.) See Site Record dated 6/22/99.

P6. Date Constructed/Age and Source: ☐ Prehistoric ☒ Historic ☐ Both

P7. Owner and Address: Union Pacific Railroad.

P8. Recorded by (Name, affiliation, address): D. Livingstone and C. Hamilton, Applied EarthWorks, Inc. 3292 E. Florida Ave., Suite A, Hemet, CA 92544.

P9. Date Recorded: 19 June 2002

P10. Type of Survey: ☐ Intensive ☐ Reconnaissance ☒ Other:
Describe: Recordation of Hobart Tower.

P11. Report Citation (Provide full citation or enter "none"): *The Alameda Corridor Hobart Tower 1926–2002, Hobart Junction, Los Angeles, CA.* Prepared by Applied EarthWorks, Inc. for the Alameda Corridor Transportation Authority, April 2002.

***Attachments:** ☐ None ☒ Location Map ☒ Site Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☒ Photograph Record ☒ Other: Building, Structure, and Object Record.

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: Hobart Tower
B2. Common Name: Hobart Tower
B3. Original Use: Railroad Signal Tower **B4. Present Use:** Signal Communication
***B5. Architectural Style:** Mediterranean
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Hobart Tower began operation in September 1926; it is the last operating signal tower west of Omaha, Nebraska. Hobart is an interlocking tower, so named for the interlocking machine or interlocker, an electro-mechanical device used to control signals and tracks switching. Hobart Tower retains the original interlocker, as well as its original architectural integrity.

***B7. Moved?** ☒ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
***B8. Related Features:** Features related to the Hobart Tower consisted of tracks, cantilever signal light bridges, and track switches, all of which were renovated or removed in 2001. The cantilever lights and track switches operated 350 to 1,000 ft north, south, east, and west of Hobart Tower. The original tracks abutted Hobart Tower approximately 12–15 ft to the west and 20–30 ft to the south and east.

B9a. Architect: Los Angeles & Salt Lake Railroad Co. **b. Builder:** Los Angeles & Salt Lake Railroad Co.
***B10. Significance: Theme** Railroad Transportation **Area** Los Angeles, California.
Period of Significance 1926–2001 **Property Type** Railroad Tower **Applicable Criteria** HP17
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
Hobart Tower is an architectural feature of the Union Pacific Railroad (Site No. 19-186110/30-17660), a historic railroad considered eligible for listing on the NRHP. Hobart Tower is the last officially operating signal tower west of Omaha, Nebraska. For more than 75 years, Hobart Tower controlled signal and switching operations for freight and passenger trains of the Los Angeles & Salt Lake, Union Pacific, Atchison Topeka & Santa Fe, Burlington Northern Santa Fe, Metrolink and Amtrak railways. With the closure of nearby Dayton, Mission, and Redondo Junction towers, Hobart Tower became the last of its kind. Beginning January 2002, Hobart's signal and switching functions shifted to the authority of the regional operating center in San Bernardino. Hobart's geographical scope included most of the main railroad lines between the Port of Los Angeles and Hobart Yard, freight shipping facilities considered to be among the busiest in North America.

B11. Additional Resource Attributes: (List attributes and codes) HP11 – Engineering Structure

***B12. References:**

Gustafson, Lee, and Phil Serpico
1992 *Coast Lines Depots*. Omni Publications, Palmdale, California.
Robertson, Donald
1998 *Encyclopedia of Western Railroad History, Vol. 4.* Caxton Printers, Ltd., Idaho.
Alameda Corridor Transportation Authority (ACTA) and Applied EarthWorks, Inc. (Æ)
2002 *Hobart Tower, 1926–2002.* Alameda Corridor Transportation Authority, Carson, California.
Jones & Stokes
1999 Cultural Resources Inventory Report for Williams Communications, Inc. Site record for 19-186110/30-176630.

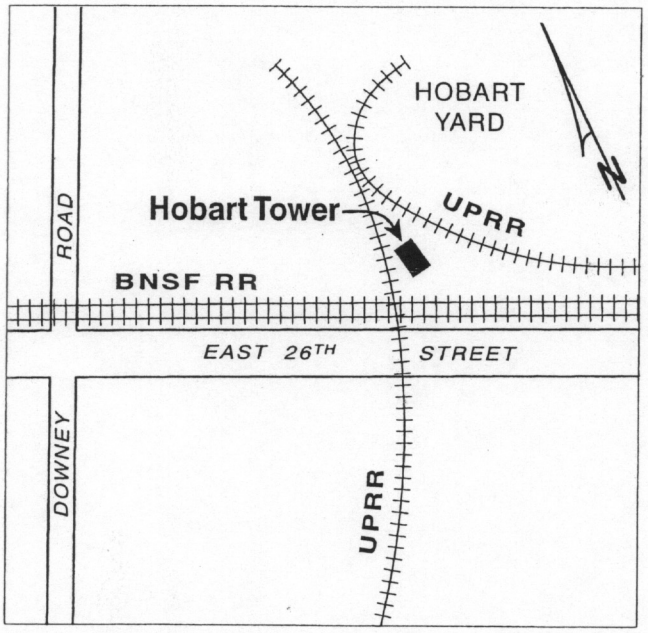
B13. Remarks: Hobart Tower ceased formal signaling operations January 2002. There is no immediate plan to preserve or relocate the building and its equipment. Hobart Tower is in imminent danger of neglect.

(This space reserved for official comments.)

B14. Evaluator: M.C. Hamilton, Senior Historical Archaeologist and Architectural Historian, Applied EarthWorks, Inc., 3292 East Florida Ave., Suite A, Hemet, CA 92544

***Date of Evaluation:** January 2002

Temporary Number/Resource Name: Hobart Tower



Applied EarthWorks, Inc.

PHOTOGRAPH RECORD

Primary # 19-186110 Supplement
HRI #/Trinomial 30-176630

Temporary Number/Resource Name: Hobart Tower
Project Name: Alameda Corridor **Roll #** Hobart-1 **Photographer:** D. Livingstone
Camera Format: 35 mm **Lens Size:** 28 mm
Film Type and Speed: Color slide **Year:** 2002
Negatives Kept at: 3292 E. Florida Ave., Suite A, Hemet, CA 92544

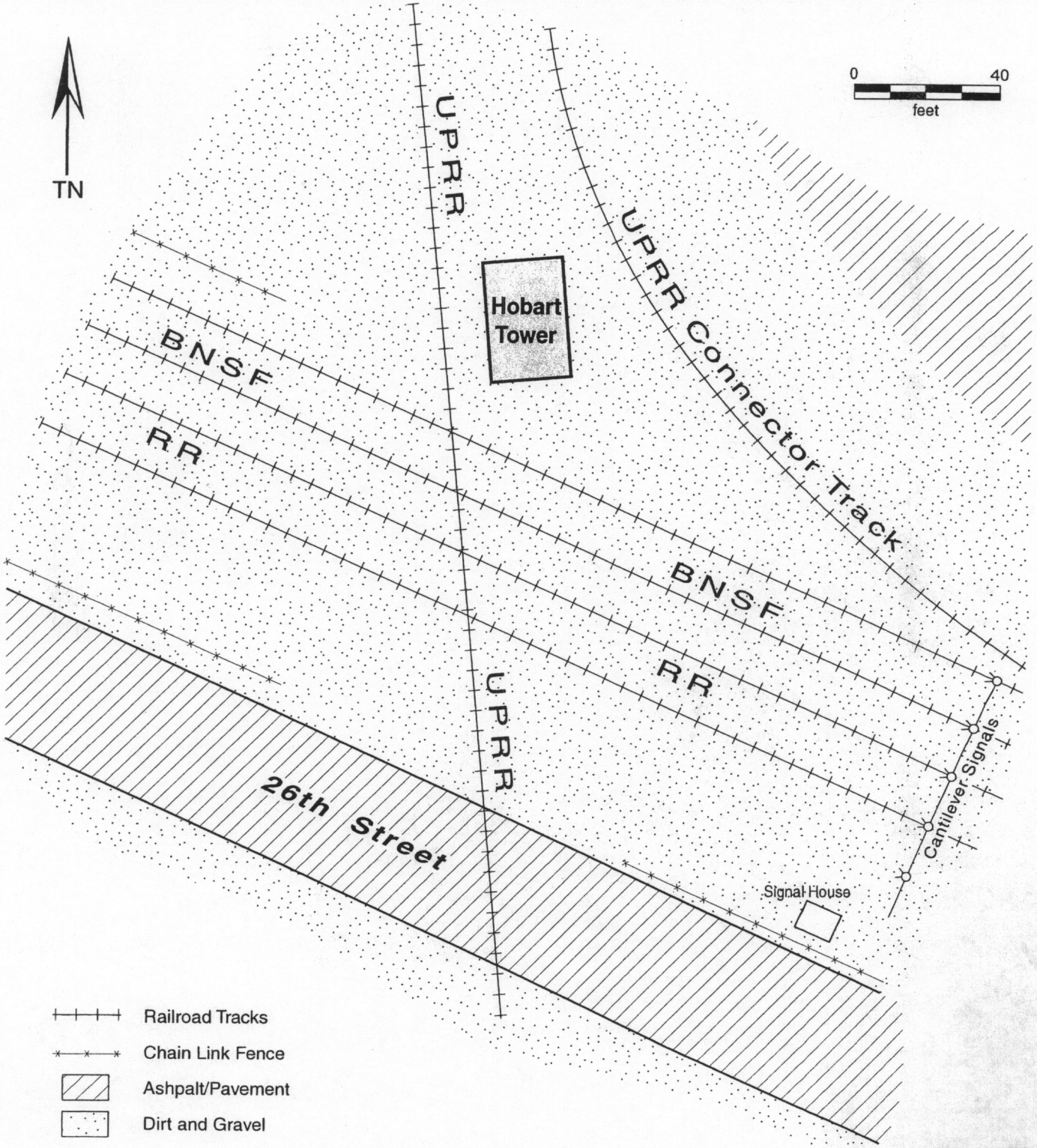
Mo.	Day	Time	Exp./ Frame	Subject/Description	View Toward	Accession #
2	10	1150	2	Hobart Tower: oblique view of southeast corner of tower.	SW	
2	10	1155	3	Hobart Tower: oblique view of southeast corner of tower.	SW	
2	10	1210	14	Hobart Tower: frontal view of west side.	E	
2	10	1212	15	Hobart Tower: frontal view of west side.	E	

Applied EarthWorks, Inc.

SITE MAP SHEET

Primary # 19-186110 Supplement
HRI #/Trinomial 30-176630

Page 5 **of** 6
Temporary Number/Resource Name: Hobart Tower
Map Name: Hobart Tower Site Map **Scale:** 1" = 40' **Date:** June 2002



Applied EarthWorks, Inc.

LOCATION MAP SHEET

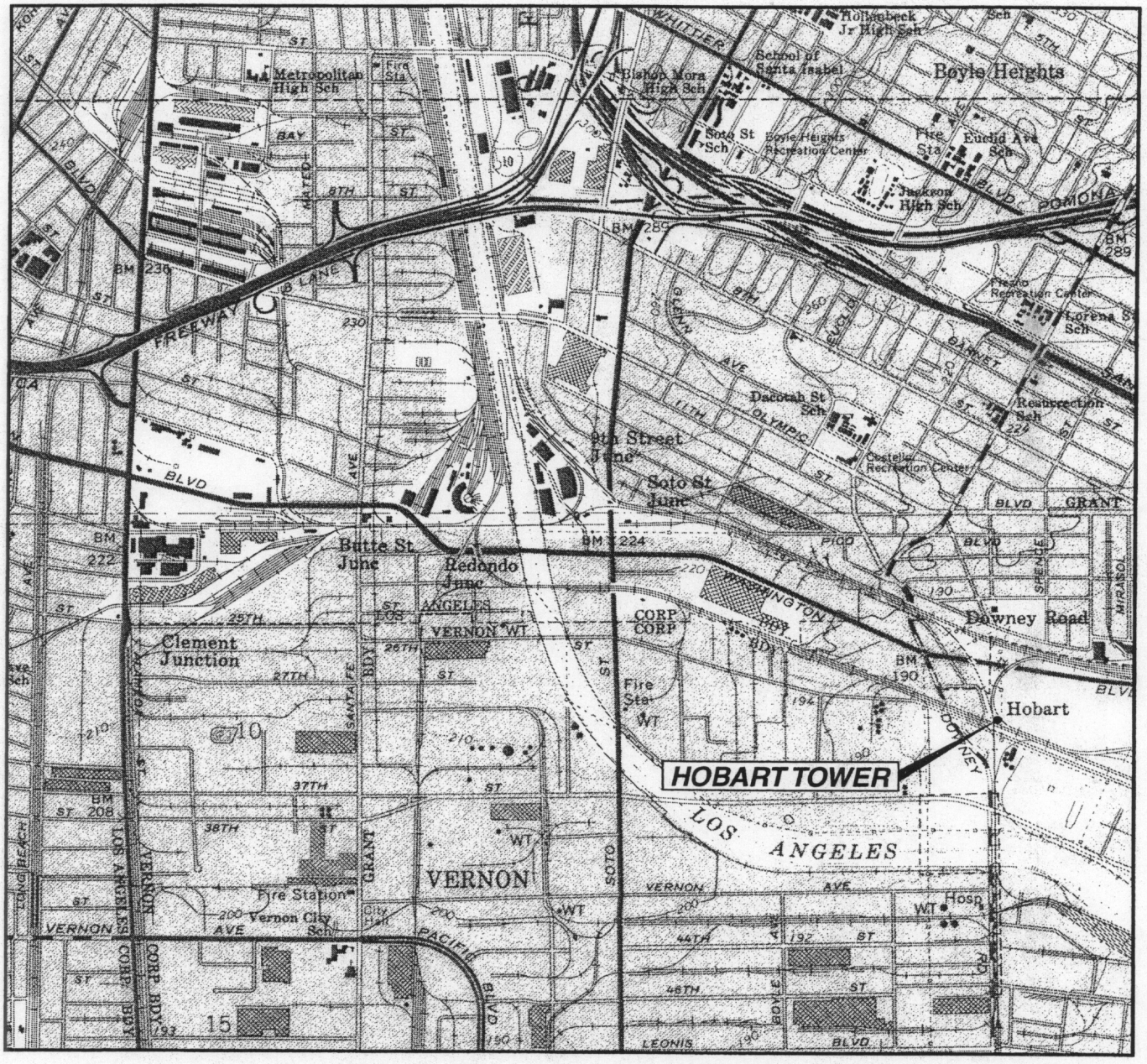
Primary # 19-186110 Supplement

HRI #/Trinomial 30-176630

Page 6 **of** 6

Temporary Number/Resource Name: Hobart Tower

Map Name: Hobart Tower Location Map **Scale:** 1:24,000 **Date:** June 2002



UTM GRID AND 1994 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

Los Angeles, CA 7.5' USGS Quad 1966 (1981, 1994)

State of California — The Resources Agency **Primary #** 19-186110 (Update)
DEPARTMENT OF PARKS AND RECREATION **HRI #**

PRIMARY RECORD

Trinomial
NRHP Status Code

Other Listings
Review Code **Reviewer** **Date**

 ***Resource Name or #:** Union Pacific Railroad (No. 33, 34, and 100)

P1. Other Identifier: Union Pacific Railroad

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Los Angeles **Date:** 1966 (photo revised 1981 and 1994) **T** 1S; **R** 13W; unsectioned; S.B.**B.M.**

c. Address: City: Los Angeles Zip: 90023

d. UTM: Zone: 11 ; mE/ mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: ~245 feet above msl

Tracks located on the east side of the Los Angeles River north and south of the 6th Street Viaduct

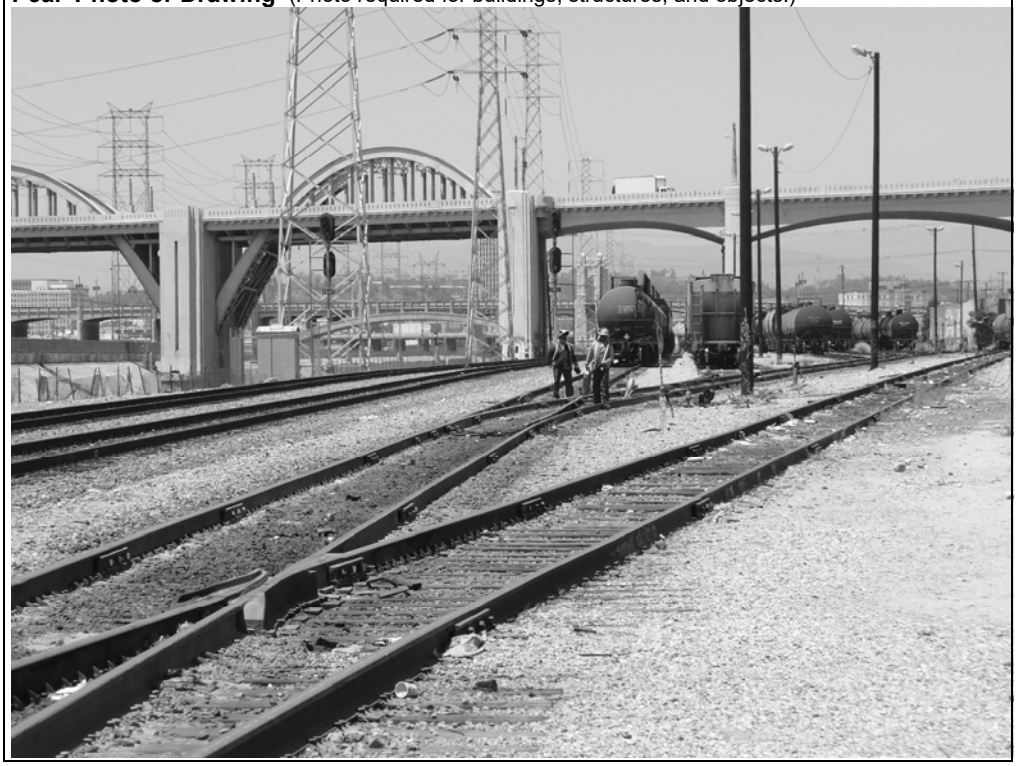
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Union Pacific Railroad (UP) tracks in the project area are comprised of a set of 5 freight tracks, which run roughly north-south on the east side of the Los Angeles River. Two sets of continuous welded rail (tracks) are immediately east of the Los Angeles River, and three converge into a single line south of the 6th Street Viaduct. The sets of continuous welded tracks are arranged in linear configurations, parallel to one another. This segment of tracks is contiguous at the north and south ends to additional portions of railroad track. The tracks are not physically distinguishable from other steel, standard guage, continuous welded freight railroad tracks. This segment of railroad may have been directly associated with the development of the community because of its original connection with the Los Angeles & San Pedro Railroad (1869), Los Angeles Terminal Railway Company (1891), San Pedro, Los Angeles, & Salt Lake Railroad Company (1901), Los Angeles & Salt Lake Railroad (1920), Southern Pacific (c. 1920s), Union Pacific (1997). The trackbed is roughly flat (with berms at tracks), and this segment is bordered by Mission Street on the east side, Metrolink and the chanelized Los Angeles River on the west side. The 6th Street Viaduct notably runs perpendicular to the tracks, overhead.

***P3b. Resource Attributes:** (List attributes and codes) HP11 (Engineering structure); HP39 (Other-railroad)

***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View north from crossover, July 11 2007 07 11 07 46

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Pehistoric
☐ Both
circa 1869-present

***P7. Owner and Address:**
Union Pacific Railway
1400 Douglas Street
Omaha, NE 68179

***P8. Recorded by:** (Name, affiliation, and address)
Francesca G. Smith and
Caprice D. (Kip) Harper
Parsons
100 W. Walnut Street, B-Pod 2nd Fl.
Pasadena, CA 91124

***P9. Date Recorded:** 07/11/07

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")

Historical Resources Evaluation Report: 6th Street Viaduct Seismic Improvement Project, prepared by Francesca G. Smith, 2007.

***Attachments:** ☐ NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z (Segment only)

***Resource Name or #** (Assigned by recorder) Union Pacific Railroad (No. 33, 34, and 100)

B1. Historic Name: Southern Pacific Railroad/San Pedro, Los Angeles & Salt Lake Railroad/Los Angeles Terminal Railroad

B2. Common Name: Union Pacific

B3. Original Use: railroad B4. Present Use: railroad

***B5. Architectural Style:** N/A

***B6. Construction History:** (Construction date, alterations, and date of alterations)

Ongoing maintenance and reconfiguration of tracks for more than 100 years (dates unknown).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features:**

B9a. Architect: N/A b. Builder:

***B10. Significance: Theme:** **Area:**

Period of Significance: **Property Type:** **Applicable Criteria:**

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This segment of railroad tracks, formerly part of the Los Angeles Terminal Railway, San Pedro, Los Angeles & Salt Lake Railroad and Los Angeles & Salt Lake Railroad yard was reduced in size at the turn of the 20th century, a a segment of railroad tracks is modestly recognizable to its original appearance. Now operated by Union Pacific, the linear resource is a series of parallel railroad tracks. The remaining tracks have been maintained for over 100 years, however, no buildings or other substantial railroad-related resources from the former San Pedro, Los Angles & Salt Lake Railroad yard remain. Because of these changes, the property lacks integrity of design, materials, workmanship and location (as it was developed after the 20th century and streets were built). The surrounding landscape has changed over the years and the resource no longer retains integrity of setting. In part because of described alterations to materials, workmanship, location and setting, this property is not eligible for listing in the National or California registers under Criterion C or 3. No evidence was discovered to warrant consideration under Criterion D/4.

A previous evaluation of this railroad system in the greater Los Angeles area found the railroad eligible for the National Register under Criteria A and B (Jones & Stokes, 6/22/99). While the entire railroad line or perhaps the entire Los Angeles Branch may be eligible for the National and California registers, this small segment of the much larger 27,000 mile system no longer retains sufficient integrity to be eligible (Union Pacific *2006 Analyst Fact Book*). It is very short segment of a much longer linear historic resource, parts of which may be historically significant.

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

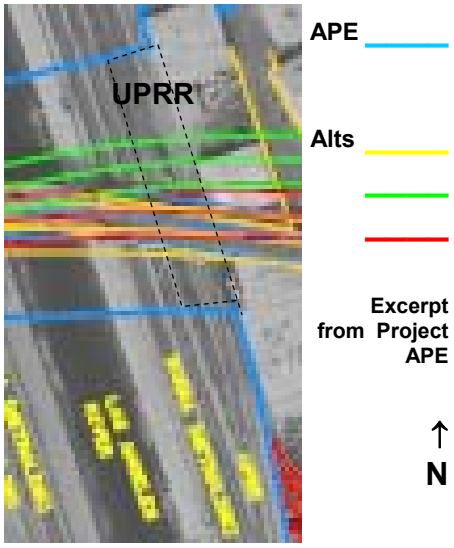
Union Pacific Corporation, *2006 Analyst Fact Book,*
John Signor, *The Los Angeles and Salt Lake Railroad Company: Union Pacific's Historic Salt Lake Route*

B13. Remarks:

***B14. Evaluator:** Francesca G. Smith

***Date of Evaluation:** 07/11/07

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

L1. Historic and/or Common Name:) Union Pacific Railroad

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:**

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) 11S, 386708.15mE/ 3767199.03mN (northernmost point) and 11S, 386750.89mE/3767033.01mN (southernmost point)'

The approximately 450- foot-long segment is located on the east side of the Los Angeles River at the 6th Street Viaduct.

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.) Union Pacific was the third transcontinental railroad to reach Los Angeles in 1905, arriving through its subsidiary, the Los Angeles Terminal Railroad. Los Angeles Terminal Railroad was originally namd for Terminal Island, and subsequently became the San Pedro, Los Angeles & Salt Lake Railroad; shortly after that, it was Los Angeles & Salt Lake Railroad through a series of mergers and acquisitions. By that time, the three main competing railroads were the Southern Pacific (SP), Atchison Topeka & Santa Fe Railway and Union Pacific. In 1910, then-rival, SP was established in Los Angeles on the west side of the river. Agriculture was one of the first industries to benefit from the presence of the railroads, notably the citrus industry after the advent of the refrigerated freight car. As a result of this growth, enormous rail yards like this property once was, (see Continuation Sheet 4) developed on both sides of the Los Angeles River. The current configuration of sets of railroads tracks bears no resemblance to the former LA & SL RR Yards that once occupied the site.

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

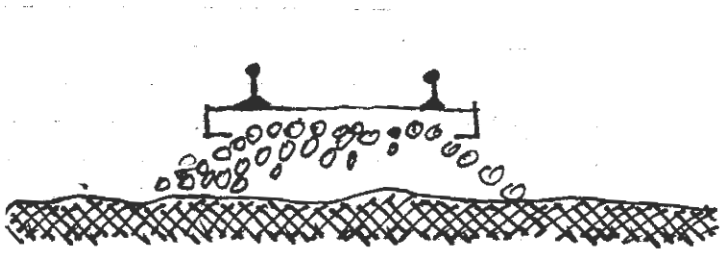
a. Top Width: 4'- 8.5 " (standard guage)

b. Bottom Width: +- 9'-0" per track

c. Height or Depth: 5" (track- top to bottom)

d. Length of Segment: +- 450 feet

L4e. Sketch of Cross-Section (include scale) **Facing:**
sketch of section (no scale)

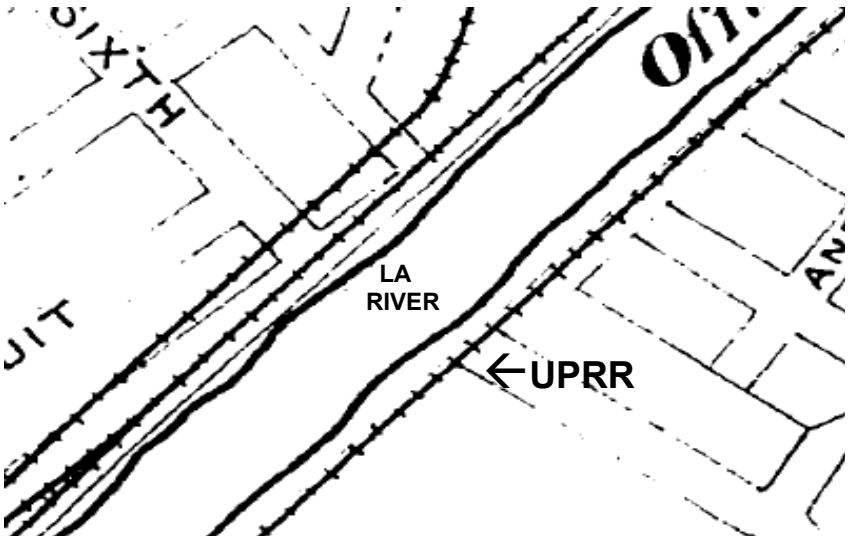


L5. Associated Resources:

6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)
Located on the east side of the Los Angeles River, a channelized flood control channel. Situated north, south and beneath 6th Street Viaduct.

L7. Integrity Considerations: This segment has been subject to ongoing maintenance, the Los Angeles River has been channelized and industrial urban development has greatly altered the integrity of setting of the railroad.

L8a. Photograph, Map or Drawing



Annotated excerpt from *Sanborn Fire Insurance Co. Map of Los Angeles,* Volume 1, Sheet 0, 1894.

N

L8b. Description of Photo, Map, or Drawing (View, scale, etc.)
Excerpt *Sanborn Fire Insurance Co Maps of Los Angeles*, sheet 0
-plan view, no scale

L9. Remarks:
L8 depicts UPRR's predecessor San Pedro, Los Angeles & Salt Lake Railroad

L10. Form Prepared by: (Name, affiliation, and address)
Francesca G. Smith and Caprice D. (Kip) Harper
Parsons
100 W. Walnut Street, B-Pod, 2nd Floor
Pasadena, CA 91124

L11. Date: 07/11/07

L3. Description:

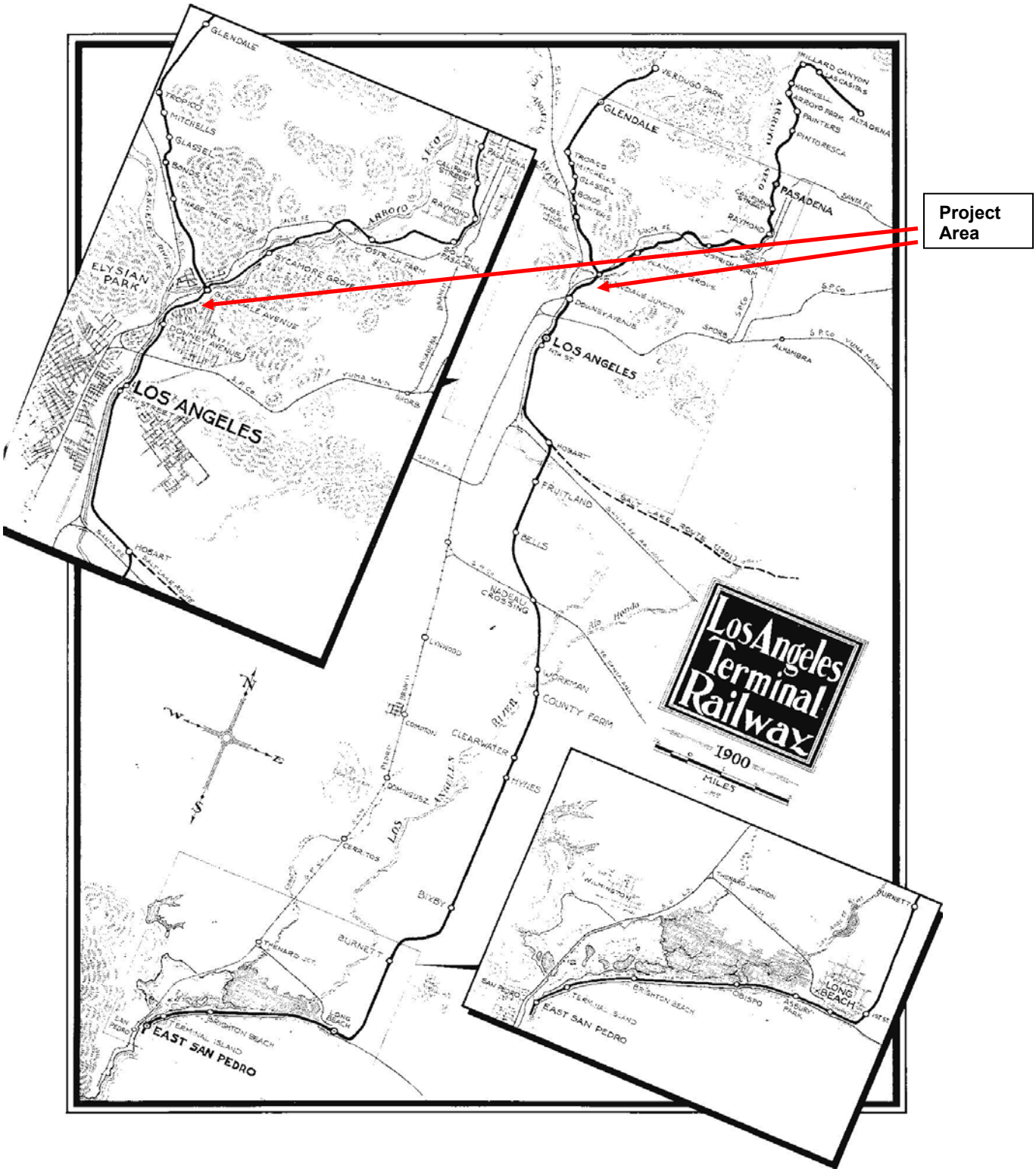
P5a. Drawing:



P5b. Description of Drawing: Annotated excerpt from John Signor's *The Los Angeles & Salt Lake Railroad Company*, depicting the Los Angeles & Salt Lake Railway in 1930. Project area is noted.

***Recorded by:** Francesca G. Smith and Caprice D. (Kip) Harper ***Date:** 05/24/07 ☒ Continuation ☐ Update

P5a. Drawing:



P5b. Description of Drawing: Annotated excerpt from John Signor, *The Los Angeles & Salt Lake Railroad Company*, depicting the Los Angeles Terminal Railway in 1900. Project area is noted.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186110 (Update)
HRI#
Trinomial

Page 6 **of** 6 ***Resource Name or #:** Union Pacific Railroad

***Map Name:** USGS Los Angeles 7.5 Minute Topographic Quadrangle ***Scale:** 1:24,000 ***Date of Map:** 1966 (PR 1981; 1994)



DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 19-186110 (Update)
HRI #
Trinomial
NRHP Status Code: 6Y, 6Z
Other Listings
Review Code ____ Reviewer ____ Date ____

***Resource Name or #:** Union Pacific Railroad segment at I-605 **Caltrans Map Reference No.:** 26
P1. Other Identifier:
***P2. Location:** ____ **Not for Publication** X **Unrestricted**
***a. County** Los Angeles **County/Route/Postmile:**
***b. USGS 7.5' Quad:** Whittier **Date** 1965. rev. 1981 **T** ____;**R** ____ **of** ____ **of Sec** ____; ____ **B.M.**
c. Address NA **City** Downey **Zip**
d. UTM::11 **Zone** 3392298 , ____ **mE/** 11810405 **mN**
***e. Other Locational Data** (APN #, etc.)
***P3a. Description:** (Briefly describe resource below)

This update form is for a 621-foot long segment of the Union Pacific Railroad (UPRR) in the Downey, California area. This segment is a single-track, standard gauge line, traveling on a slightly elevated ballast, directly below Interstate 605 or the San Gabriel River Freeway. The portion evaluated here includes the section that intersects with Hoxie Avenue, south of Nance Street. In addition to rails, ties, ballast, and metal perimeter fencing, this segment contains associated modern gates, signals, and lights at the Hoxie Avenue crossing (See continuation sheet).

***P3b. Resource Attibutes:** HP39. Other
****P4. Resources Present:** ___Building __x__Structure ____Object ____Site ___District ____Elements of District ____Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: Looking northwest from Hoxie Avenue (ICF, 3/26/2018)
***P6. Date Constructed/Age:** 1870s to present (Jones & Stokes, 1999)
__x__ Historic ___Prehistoric ___Both
***P7. Owner and Address:**
Union Pacific Railroad
1400 Douglas Street
Omaha, NE 68179

***P8. Recorded by:**
Jessica B. Feldman
ICF
555 W. Fifth Street
Suite 3100
Los Angeles, CA 90013

***P9. Date Recorded:** 3/26/2018
***P10. Type of Survey:** ___Intensive ___Reconnaissance __X__Other
Describe: Section 106 Compliance

***P11. Report Citation:** HRER for the I-605 Corridor Improvement Project PA/ED, 2019
***Attachments:** ___NONE __X__Map Sheet __x__Continuation Sheet ___Building, Structure and Object Record ___Linear Resource Record ___Archaeological Record ___District Record ___Milling Station Record ____Rock Art Record ___Artifact Record ___Photograph Record Other (List):

Previous evaluations of the railroad line in 1999 and 2007 found that the physical components, such as tracks, ballast, and signal system, have been periodically upgraded over the past century, as a result of routine maintenance or system improvements. In 2007, the evaluator suggested that the entire railroad line, or perhaps the entire Los Angeles Branch of the UPRR, may be eligible for the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR); however, this small segment of a much larger potential linear historic resources lacks integrity within the historic context to be eligible for either the NRHP or the CRHR.

Under Criterion A of the NRHP, the integrity of design, materials, and workmanship is not as important as the integrity of location, setting, feeling, and association to convey the significance of the resource, within the period of significance. Previous documentation and evaluation of this segment of the UPRR established the period of significance as beginning in the late 1860s and continuing through 1905, when the tracks reached Los Angeles. Through review of historic aerials and United States Geological Survey maps, it can be established that while the location and association of this railroad segment appear to remain intact, the segment has lost integrity of setting and feeling. When originally constructed through this part of Los Angeles County, the surrounding countryside was primarily unsettled, and surrounded by cultivated and fallow lands. By the 1950s, housing developments were beginning to pop up along both sides of the San Gabriel River; however, the construction of Interstate 605 rapidly changed the landscape. As a result, the original character of the setting no longer resembles a rural, agricultural late 19th century landscape, not the least of which is the result of a multi-lane freeway being constructed over the tracks. Furthermore, the alteration of physical features in the immediate vicinity, in additional to the intrusion of modern railroad equipment, has diminished the integrity of feeling. Therefore, this small segment of the UPRR is not independently eligible under NRHP Criterion A or CRHR Criterion 1.

Under NRHP/CRHR Criterion B/2, there is no known direct association with any persons considered significant in national, state, or local history. Therefore, this segment of the UPRR is not independently eligible for the NRHP under Criterion B or the CRHR under Criterion 2.

As previously discussed, there is little, if any, direct physical evidence of the original mid- to- late-19th century railroad or associated features located within this transportation corridor and, as a result, it lacks integrity of design, materials, and workmanship. Survey of the corridor did not reveal that this small segment of the railroad displays any important engineering advancement, or creative or innovation design, or unusual construction methods. Therefore, it is not independently eligible for listing in the NRHP under Criterion C or the CRHR under Criterion 3.

Under NRHP Criterion D or CRHR Criterion 4, the railroad segment is not a significant or likely source of important information regarding history or prehistory. It is unlikely to yield any important data regarding original engineering or architectural designs or techniques that would help us understand the construction practices of the day. Therefore, this segment of the UPRR is not eligible for individual listing on the NRHP/CRHR under Criterion D/4.

Following the review of previous evaluations, additional research, and survey of the segment, ICF concurs with the finding that although the portions of the UPRR alignment could be eligible for the NRHP or the CRHR, the subject segment does not contribute to the larger property and lacks significance for eligibility independently. The segment of the UPRR is not a historic property for the purposes of Section 106 of the National Historic Preservation Act and is not a historical resource for the purposes of the California Environmental Quality Act. The property was not evaluated for local designation.

References:

Drury, George. *The Historical Guide to North American Railroads*. Kalmbach Books: Milwaukee, WI. 1985.

Cooley, David J. *California Railroad Maps, Union Pacific/BNSF Railway*. Sonrisa Publications: Auburn, WA. 2005.

Jones & Stokes (Ashkar, S.). *C-Los Angeles-A-1/Southern Pacific Railroad/Union Pacific Railroad*. California Department of Parks and Recreation Primary Record, Building, Structure and Object Record, et al. 1999.

Parsons (Smith, Francesca and Kip Harper). *Union Pacific Railroad (No. 33, 34, and 100)*. California Department of Parks and Recreation Primary Record, Building, Structure and Object Record, et al. 2007.



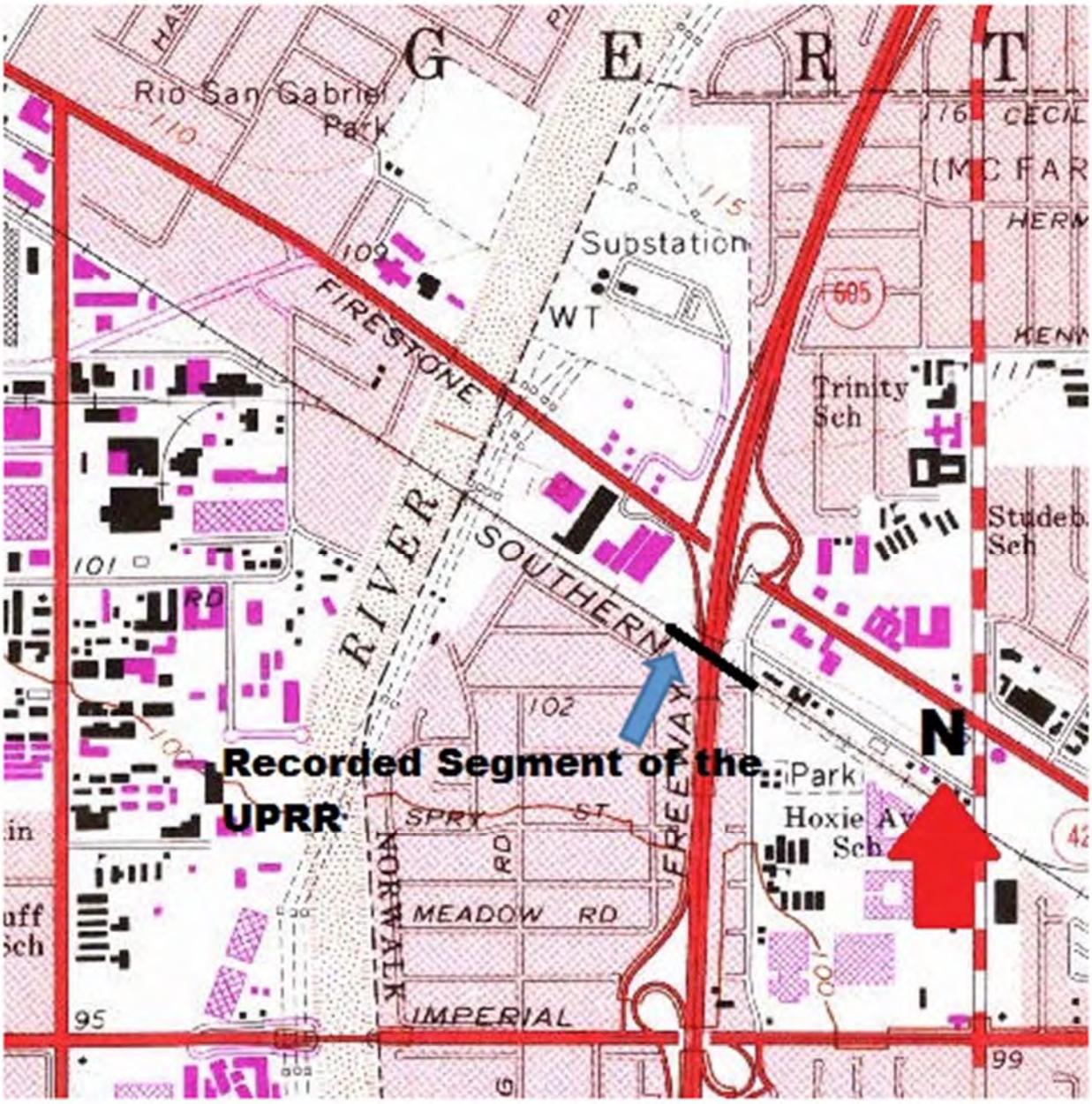
View looking south on Hoxie Avenue, south of Nance Street. ICF, June 27, 2017.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **LOCATION MAP**	Primary # HRI# Trinomial

Resource Identifier: Union Pacific Railroad segment at I-605 **Caltrans Map Reference No.:** 26

County/Route/Postmile:

Map Name: Whittier Quad *Scale: 1:24,000 *Date of Map: 1965, rev. 1981



P3a. Description:

An update to the DPR record for Union Pacific Railroad (former Southern Pacific Railroad) (P-19-186110) was recorded by Jessica B. Feldman, ICF, on March 26, 2018. The update was prepared as part of the Historical Resources Evaluation Report (HRER) for the I-605 Corridor Improvement Project (CIP) in Los Angeles County and documented the segment of the linear resource within the Area of Potential Effects (APE) for the project. The recommended status code for the segment was 6Y, 6Z. The HRER was subsequently reviewed by the State Historic Preservation Officer (SHPO). In a letter dated July 11, 2019, SHPO did not concur with the determination of ineligibility for the segment and recommended that the Union Pacific Railroad (P-19-186110) as a whole should be assumed eligible for the National Register of Historic Places for purposes of the I-605 Corridor Improvement Project only.

B12. References:

GPA Consulting and ICF International. *Historical Resources Evaluation Report for the I-605 Corridor Improvement Project*. March 2019. Prepared for Metro and Caltrans.

Polanco, Julianne. *Julianne Polanco, Office of Historic Preservation to Kelly Ewing-Toledo, Caltrans: Determinations of Eligibility for the Proposed Interstate 605 Corridor Improvement Project, Los Angeles County, CA*. Letter dated July 11, 2019.

B14. Evaluator: Jenna Kachour, GPA Consulting. Date of evaluation: (Update) July 25, 2019.

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 19-186804/30-176663
HRI # * See also 30-176064
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

Page 1 of 11 *Resource Name or # (Assigned by recorder) CRM TECH 789-50H

P1. Other Identifier: Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe) Railway

*P2. Location: √ Not for Publication ___ Unrestricted *a. County Los Angeles/Orange
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quads Los Angeles, Calif. Date 1966, photorevised 1981
South Gate, Calif. Date 1964, photorevised 1981
Whittier, Calif. Date 1965, photorevised 1981
La Habra, Calif. Date 1964, photorevised 1981
Anaheim, Calif. Date 1965, photorevised 1981

T2-3S R10-13W, S.B. B.M. [Within the boundaries of the San Juan Cajon de Santa Ana, Los Coyotes, Santa Gertrudes (McFarland and Downey), Santa Gertrudes (Colima), Paso de Bartolo (Sepulveda), Paso de Bartolo (Guirado), and San Antonio (Lugo) land grants]
Elevation: Ca. 80-190 feet above mean sea level

c. Address N/A City Fullerton, Buena Park, La Mirada, Santa Fe Springs, Norwalk, Pico Rivera, Montebello, City of Commerce, and Vernon Zip Code N/A

d. UTM: Zone 11; NW end: 388830 mE/ 3763880 mN; SE end: 417800 mE/ 3747600 mN
UTM Derivation: √ USGS Quad ___ GPS

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The recorded segment of the railroad extends from Basta (BNSF Mile Post 163.3) in the City of Fullerton to Hobart (M.P. 148.9) in the City of Vernon

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The site consists of an approximately 14.7-mile segment of the Burlington Northern Santa Fe (formerly Atchison, Topeka and Santa Fe) Railway surveyed between Hobart (MP 148.9) and Basta (MP 163.3). Most of the rail line dates originally to the 1880s. Like the many other historic-period rail lines that remain in use today, this segment of the former ATSF Railway demonstrates little historical characteristics due to the numerous modern alterations necessary to keep it in active service, such as the upgrades to and replacement of track, ballast, and signal system. As a result of these alterations, the existing rail line does not exhibit the necessary historic integrity to relate to its period of significance.

*P3b. Resource Attributes: (List attributes and codes) HP37: Railroad

*P4. Resources Present: ___ Building ___ Structure ___ Object √ Site ___ District ___ Element of District
___ Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

(See p. 10)

P5b. Description of Photo: (view, date, accession #) Photos taken on June 21, 2002

*P6. Date Constructed/Age of Sources:
√ Historic ___ Prehistoric ___ Both 1885-1888 (see Items B6 and B12 for detail)

*P7. Owner and Address:
Burlington Northern Santa Fe Railway Company, 2650 Lou Menk Drive, Fort Worth, TX 76131

*P8. Recorded by: (Name, affiliation, and address)
Daniel Ballester/Bai "Tom" Tang, CRM TECH, 4472 Orange Street, Riverside, CA 92501

*P9. Date Recorded: June-July 2002

*P10. Survey Type: CEQA-compliance survey

(*Continued on p. 2*)

*P11. **Report Citation:** (Cite survey report and other sources, or enter "none.") Bai Tang, Michael Hogan, and Mariam Dahdul (2002): Historical Resources Compliance Report: Third Main Track and Grade Separation Project, Hobart (MP 148.9) to Basta (MP 163.3), BNSF/Metrolink East-West Main Line Railroad Track, Vernon to Fullerton, Los Angles and Orange Counties, California. On file, South Central Coastal Information Center, California State University, Fullerton.

Bai "Tom" Tang, Michael Hogan, Deirdre Encarnación, and Josh Smallwood (2006, revised 2008): Historical Resources Evaluation Report: Passons Boulevard Grade Separation Project, BNSF/Metrolink East-West Main Line Railroad Track (MP 151.45), City of Pico Rivera, Los Angeles County, California; 07-LA-0-PRV, EA 992081. On file, South Central Coastal Information Center, California State University, Fullerton.

*Attachments: ____None __√__ Location Map __√__ Continuation Sheet __√__ Building, Structure, and Object Record
____Archaeological Record____District Record____Linear Resource Record____Milling Station Record
____Rock Art Record____Artifact Record____Photograph Record____Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 19-186804/30-176663
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z
*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

B1. Historic Name: Atchison, Topeka and Santa Fe Railway
B2. Common Name: Burlington Northern Santa Fe Railway
B3. Original Use: Railroad B4. Present Use: Railroad
*B5. **Architectural Style:** N/A
*B6. **Construction History:** (Construction date, alterations, and date of alterations) Most of the railroad line within this site was constructed in 1885-1888 by the Riverside, Santa Ana and Los Angeles Railway Company, an ATSF subsidiary, as a part of the ATSF main line from Los Angeles to Orange and San Diego. The easternmost segment, measuring approximately 1.5 miles in length, was built in 1910 as a part of the "Fullerton Cutoff," which straightened and shortened the ATSF line between Los Angeles and Riverside. During the heyday of the railroad age, the line was a part of the ATSF's famed "Kite-Shaped Track," one of the most popular tourist attractions in southern California in the 1890s-1910s. The rails, ties, and ballast have been replaced numerous times since its original construction in the late 1880s.
*B7. **Moved?** √ No ___ Yes ___ Unknown **Date:** ___ **Original Location:** ___
*B8. **Related Features:** Bridges, culverts, and other common railroad features (see p. 11)
B9a. Architect: N/A b. Builder: Riverside, Santa Ana and Los Angeles Railway Company
*B10. **Significance: Theme** Railroad transportation **Area** California
Period of Significance 1880s **Property Type** Railroad **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) The ATSF Railway appears to meet Criterion A for the National Register of Historic Places and Criterion 1 for the California Register of Historical Resources because it is closely associated with an important event in 19th-century California history, namely the coming of a second transcontinental railroad. This event marked the beginning of the end of the Southern Pacific Railway Company's transportation monopoly and contributed directly to the southern California land boom of the 1880s. The rail line is also associated with the emergence of southern California as a favored tourist destiny in the late 19th and early 20th centuries. However, due to the loss of historical integrity, it is no longer eligible for listing in the National Register or the California Register.

As a working component of the modern transportation infrastructure, the existing railroad line and its associated components are substantially altered and do not retain sufficient historic integrity, other than the aspect of location, to relate to the site's period of significance. The field inspection and consultation with Don Lozano, Assistant Director of Structural Design at BNSF, confirmed that all of the physical components of this segment of the railroad, including track, ballast, and signal system, have been upgraded or replaced over the years as a result of routine maintenance and improvement projects. For the same reason, the segment of the BNSF railroad recorded during this study appears to be exempt from further study under Caltrans' Section 106 Programmatic Agreement, Attachment 4, as Property Type 6.

B11. Additional Resource Attributes: (List attributes and codes) HP19: Bridges/culverts
*B12. **References:** Donald Duke (1991): Kite-Shaped Track Excursion (in *The Branding Iron* [Los Angeles] Summer 1991:8-12); Lee Gustafson and Philip Serpico (1992): *Santa Fe Coast Lines Depots, Los Angeles Division* (Omni Publications, Palmdale, California); Lozano, Don (2008): personal communication between CRM TECH and Mr. Lozano, Assistant Director of Structural Design, BNSF Railway Company.

(*Continued on p. 4*)

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 19-186804/30-176663
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z
*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

B13. Remarks:
*B14. Evaluator: Bai "Tom" Tang
*Date of Evaluation: November 2002/May 2008

(Sketch Map with north arrow required.)

(See pp. 5-10)

(This space reserved for official comments.)

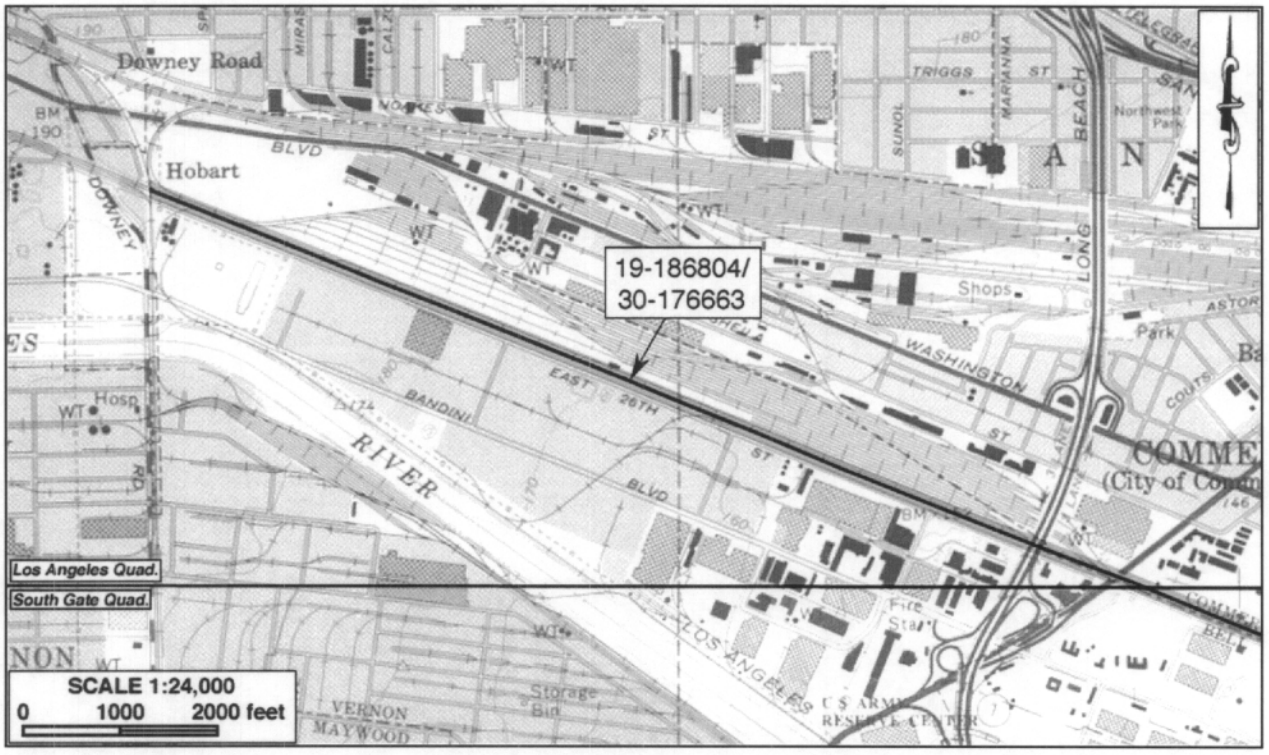
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

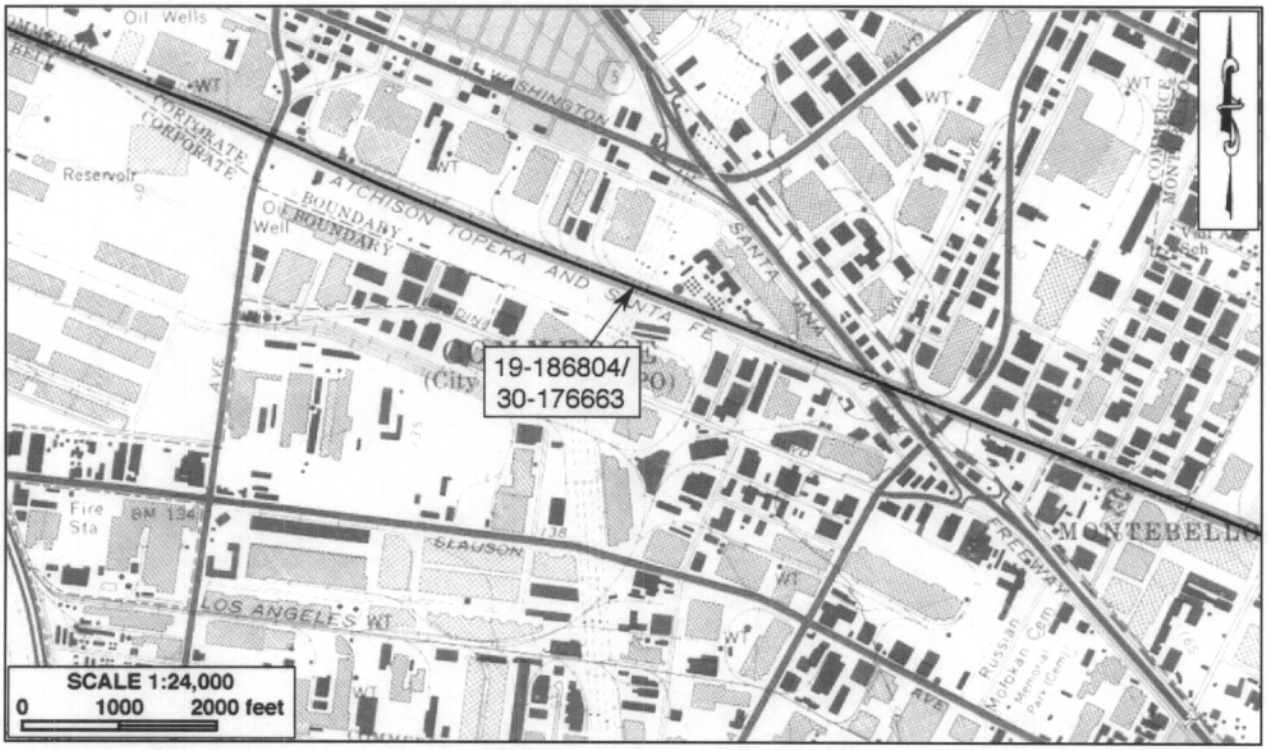
LOCATION MAP

Primary # 19-186804/30-176663
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: Los Angeles and South Gate, Calif.
*Scale: 1:24,000
*Date of Map: 1964/1966, photorevised 1981





*Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

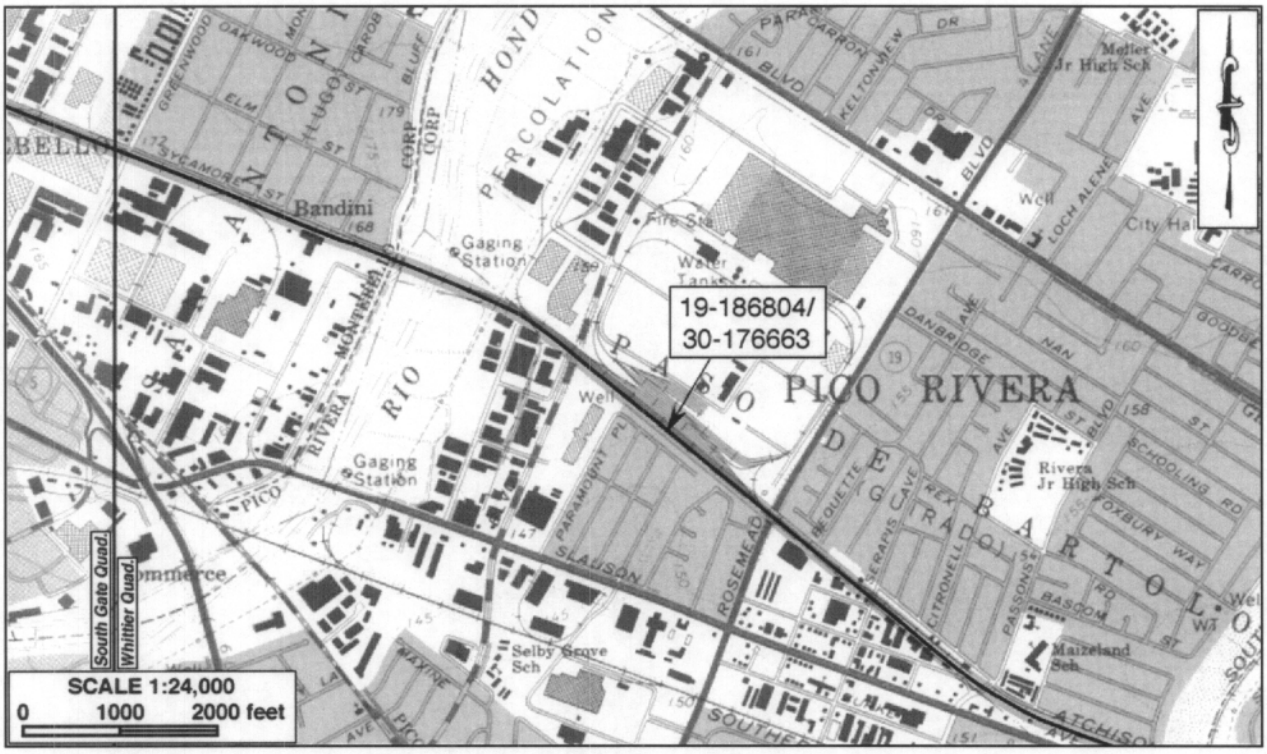
Primary # 19-186804/30-176663
HRI #
Trinomial

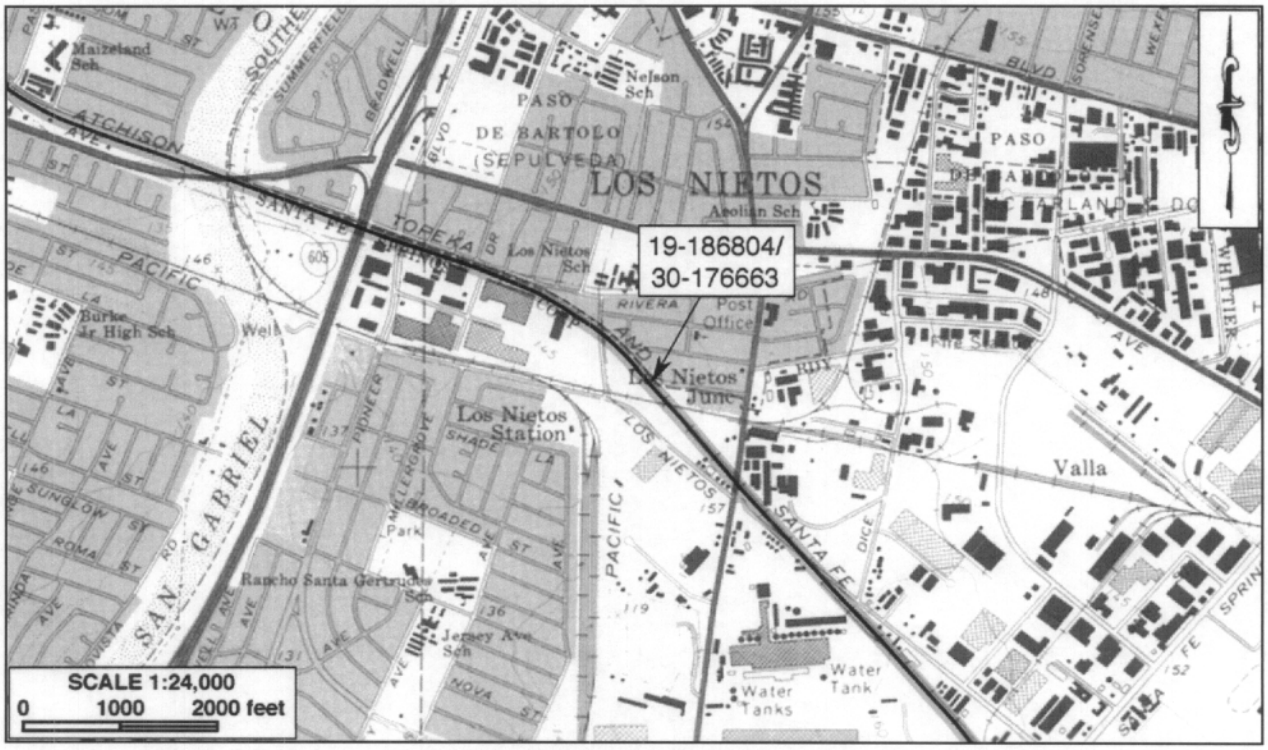
Page 6 of 11

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: South Gate and Whittier, Calif.
*Date of Map: 1964/1965, photorevised 1981

*Scale: 1:24,000





DPR 523J (1/95)

*Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-176663
HRI #
Trinomial

Page 7 of 11

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: Whittier, Calif.
*Scale: 1:24,000
*Date of Map: 1965, photorevised 1981



DPR 523J (1/95)

*Required information

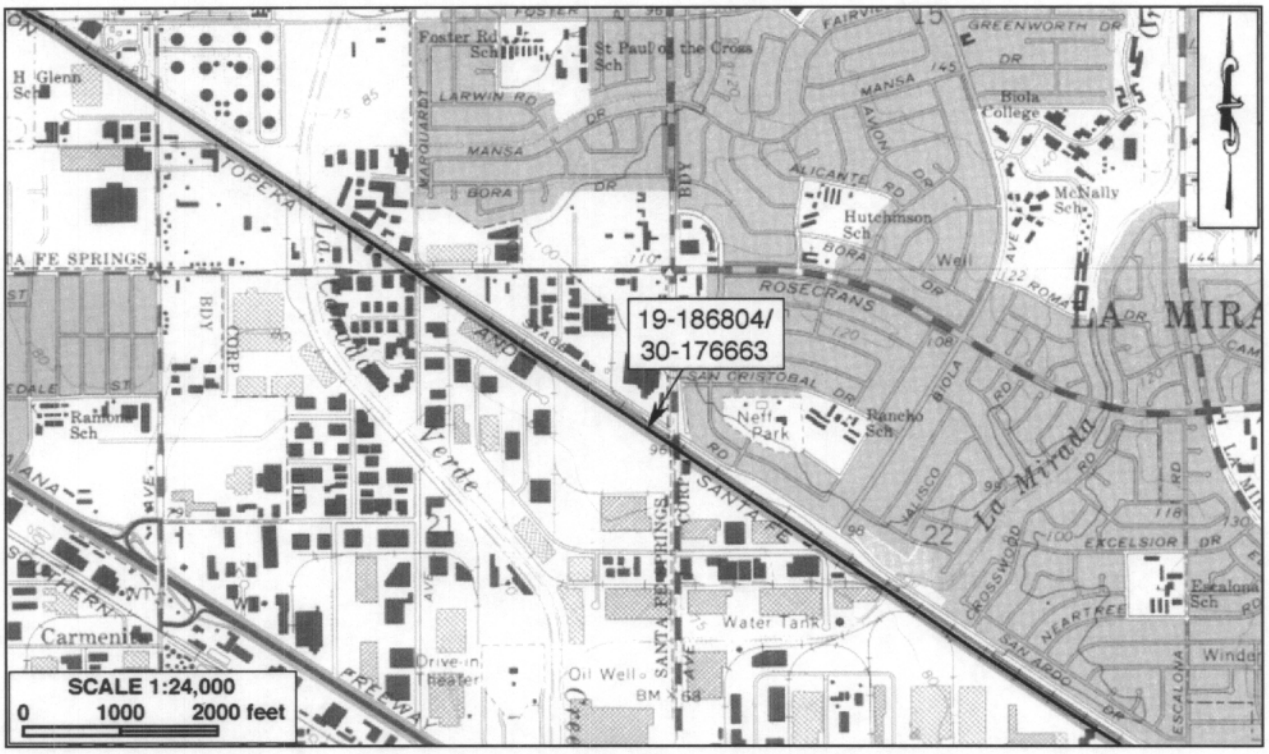
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-176663
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: Whittier, La Habra, Los Alamitos, and Anaheim, Calif.
*Scale: 1:24,000 *Date of Map: 1964/1965, photorevised 1981



*Required information

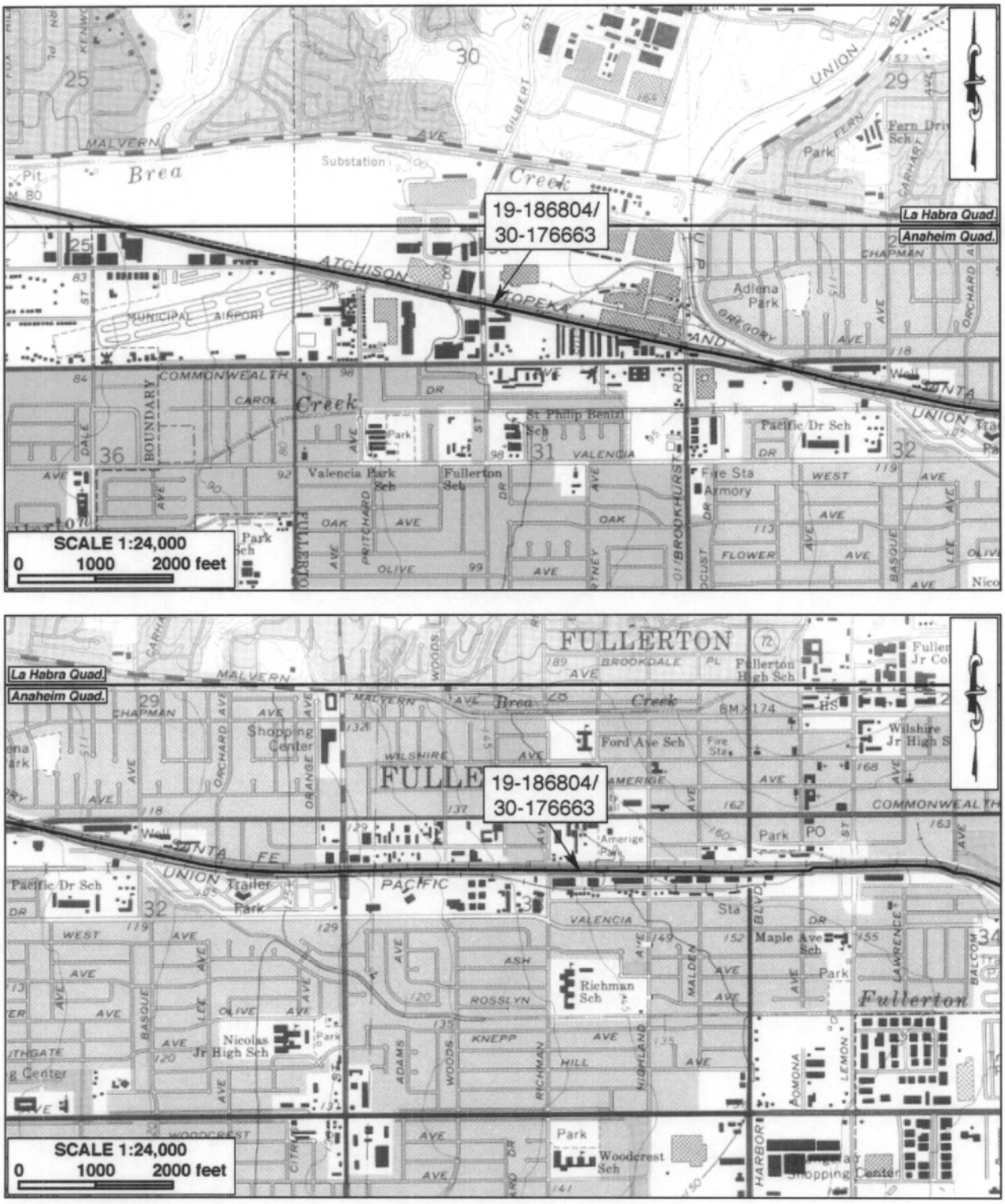
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-176663
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: La Habra and Anaheim, Calif.
*Scale: 1:24,000
*Date of Map: 1964/1965, photorevised 1981



*Required information

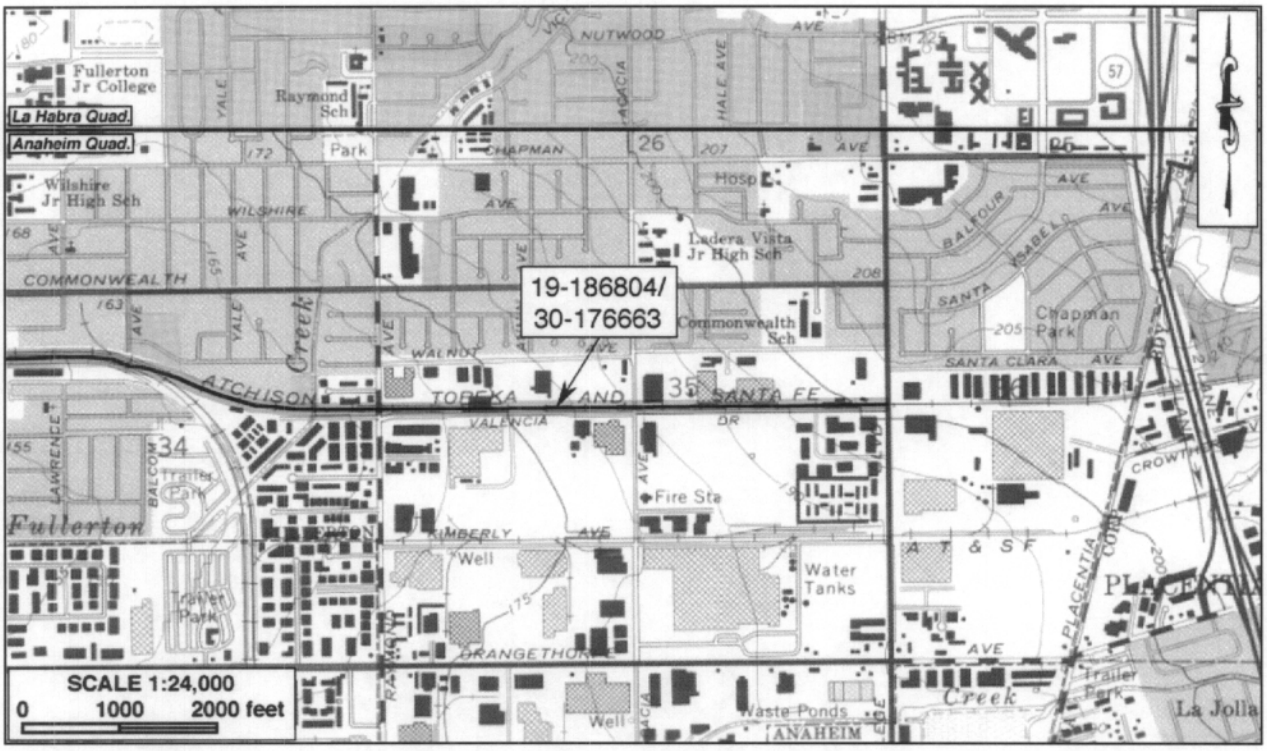
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-176663
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 789-50H

*Map Name: La Habra and Anaheim, Calif.
*Scale: 1:24,000
*Date of Map: 1964/1965, photorevised 1981



*Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # 19-186804/30-176663
HRI #
Trinomial

Page 11 of 11 Resource name or # (Assigned by recorder) CRM TECH 789-50H

Photo Taken by Daniel Ballester *Date June 21, 2002 √ Continuation ___ Update



Typical view of the existing railroad line



Old concrete culvert across the railroad bed

DPR 523L (1/95) *Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 19-186804 (Update)
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

P1. Other Identifier: Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe) Railway

*P2. Location: ____Not for Publication __√__ Unrestricted *a. County Los Angeles and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quads Whittier, Calif. Date 1965, photorevised 1981
T2-3S R11-12W, S.B. B.M. Within the boundaries of the Los Coyotes, Santa Gertrudes (McFarland and Downey), Santa Gertrudes (Colima), Paso de Bartolo (Sepulveda), and Paso de Bartolo (Guirado) land grants
Elevation: Approx. 80-150 feet above mean sea level

c. Address N/A City La Mirada, Santa Fe Springs, Norwalk, and Pico Rivera Zip Code

d. UTM: Zone 11; NW end: 397,960 mE 3,759,830 mN; SE end: 405,500 mE 3,750,660 mN
UTM Derivation: √ USGS Quad ____ GPS

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The recorded segment of the railroad extends from BNSF Mile Post 150.7 in the City of Pico Rivera to M.P. 158.8 in the City of La Mirada.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The site consists of an approximately 8.1-mile segment of the Burlington Northern Santa Fe (formerly Atchison, Topeka and Santa Fe) Railway. Most of the rail line dates originally to the 1880s. However, as a working railroad after more than 100 years of continuous operation, its current physical characteristics reflect very little of the historic origin. The existing tracks and other associated railroad features are mostly modern in origin, and show no particular historical characteristics.

*P3b. Resource Attributes: (List attributes and codes) HP37: Railroad

*P4. Resources Present: ____Building ____Structure ____Object √ Site ____District ____Element of District Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

(See p. 7)

P5b. Description of Photo: (view, date, accession #) Photos taken on June 21, 2002

*P6. Date Constructed/Age of Sources:
√ Historic ____Prehistoric ____Both 1885-1888 (see Items B6 and B12 for detail)

*P7. Owner and Address:
Burlington Northern Santa Fe Railway Company, 2650 Lou Menk Drive, Fort Worth, TX 76131

*P8. Recorded by: (Name, affiliation, and address)
Daniel Ballester, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

*P9. Date Recorded: June-July 2002

*P10. Survey Type: Project-related survey for CEQA- and Section 106-compliance purposes (intensive-level)

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang and Josh Smallwood (2009): Historical Resources Evaluation Report: Third Main Track Project, Segments 6, 7, and 8, Pico Rivera (MP 150.7) to La Mirada (MP 158.8), BNSF/Metrolink East-West Mainline, Los Angeles County, California, Caltrans District 7. On file, South Central Coastal Information Center, California State University, Fullerton.

*Attachments: ____None __√__ Location Map __√__ Continuation Sheet __√__ Building, Structure, and Object Record
____Archaeological Record ____District Record ____Linear Resource Record ____Milling Station Record
____Rock Art Record ____Artifact Record ____Photograph Record ____Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 19-186804 (Update)
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z
*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

B1. Historic Name: Atchison, Topeka and Santa Fe Railway
B2. Common Name: Burlington Northern Santa Fe Railway
B3. Original Use: Railroad B4. Present Use: Railroad
*B5. **Architectural Style:** N/A
*B6. **Construction History:** (Construction date, alterations, and date of alterations) The railroad line at this location was constructed in 1885-1888 by the Riverside, Santa Ana and Los Angeles Railway Company, an ATSF subsidiary, as a part of the ATSF main line from Los Angeles to Orange and San Diego. During the heyday of the railroad age, the line was a part of the ATSF's famed "Kite-Shaped Track," one of the most popular tourist attractions in southern California in the 1890s-1910s. Almost all of the physical components of the railroad, however, have been replaced over the years.
*B7. **Moved?** √ No ___ Yes ___ Unknown **Date:** ___ **Original Location:** ___
*B8. **Related Features:** Bridges, culverts, and other common railroad features (see p. 7)
B9a. Architect: N/A b. Builder: Riverside, Santa Ana and Los Angeles Railway Company
*B10. **Significance:** **Theme** Railroad transportation **Area** California
Period of Significance 1880s **Property Type** Railroad **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) The railroad line at this site is closely associated with an important event in 19th-century California history, namely the coming of a second transcontinental railroad, which marked the beginning of the end of the Southern Pacific Railway Company's transportation monopoly and contributed directly to the southern California land boom of the 1880s. It is also associated with the emergence of southern California as a favored tourist destiny in the late 19th and early 20th centuries. However, the existing railroad line and its associated features that constitute the site, as working components of the modern transportation infrastructure, do not retain sufficient historic integrity to relate to the site's period of significance. Therefore, the site does not appear eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.
B11. Additional Resource Attributes: (List attributes and codes) HP19: Bridges/culverts
*B12. **References:** Donald Duke (1991): Kite-Shaped Track Excursion, in *The Branding Iron* (Los Angeles) Summer 1991:8-12; Lee Gustafson and Philip Serpico (1992): *Santa Fe Coast Lines Depots, Los Angeles Division*, Omni Publications, Palmdale, California.
B13. Remarks:
*B14. **Evaluator:** Bai "Tom" Tang
***Date of Evaluation:** November 2002

(Sketch Map with north arrow required.)

(See pp. 3-6)

(This space reserved for official comments.)

*Required information

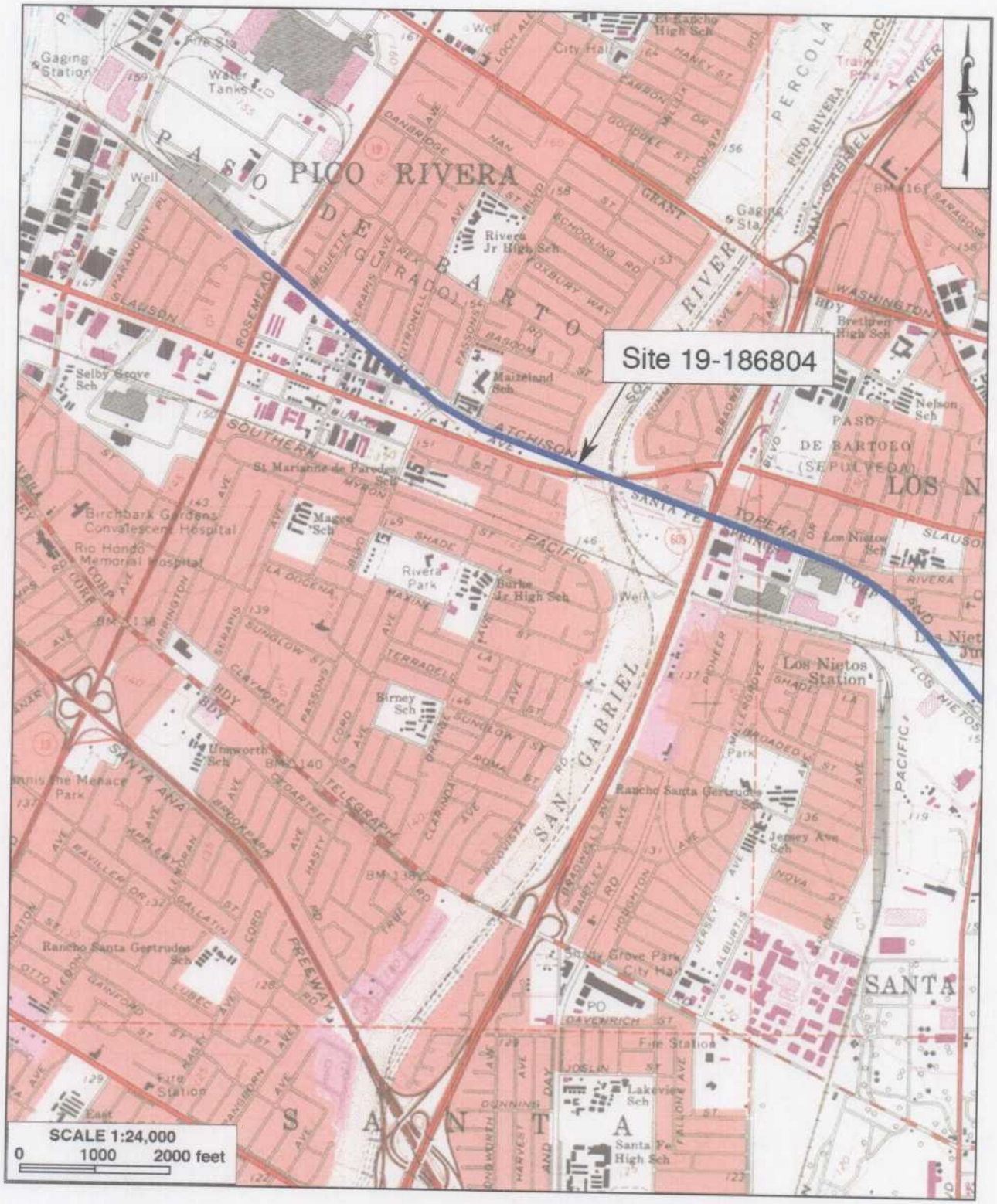
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804 (Update)
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

*Map Name: Whittier, Calif. *Scale: 1:24,000 *Date of Map: 1965, photorevised 1981



*Required information

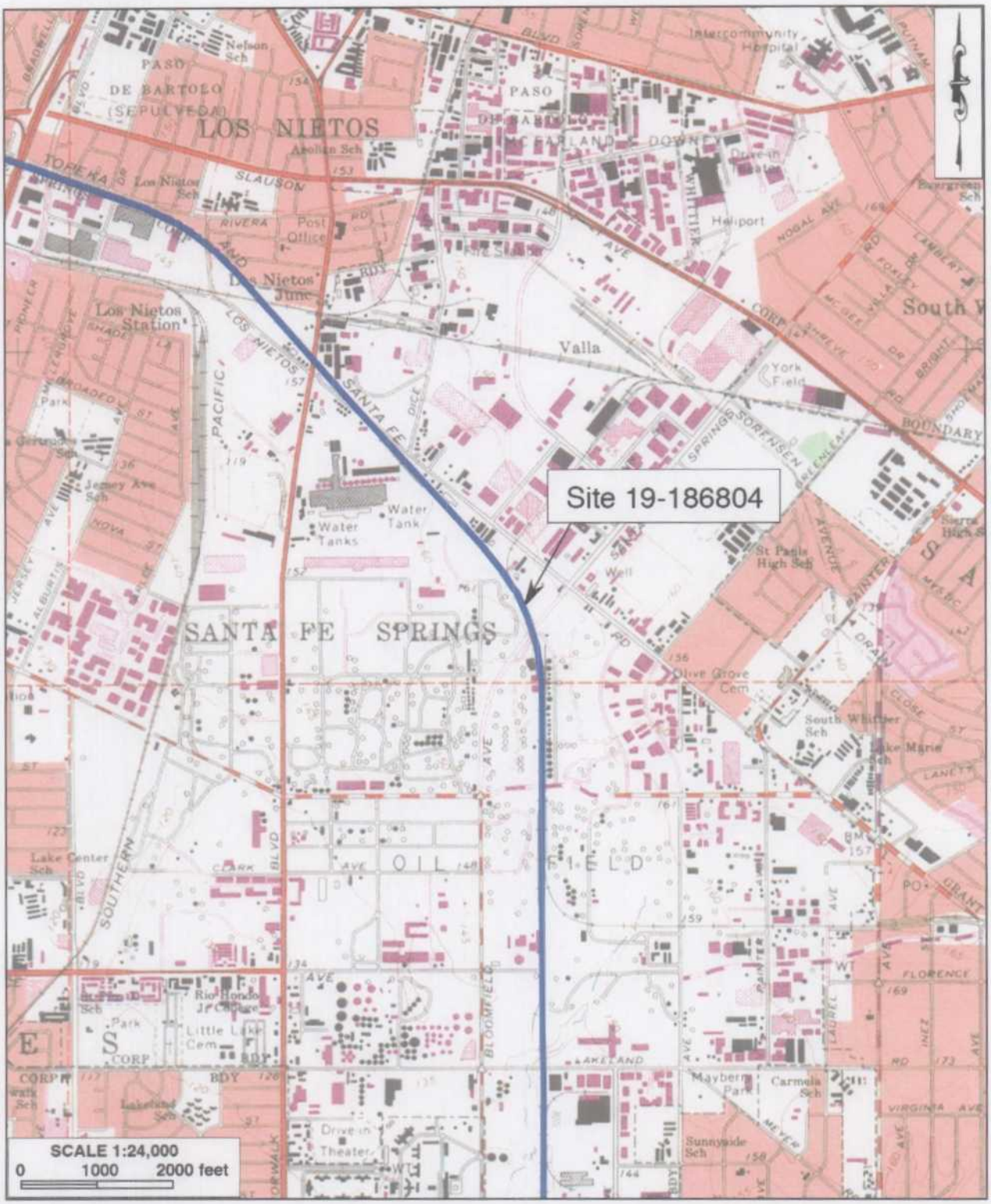
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804 (Update)
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

*Map Name: Whittier, Calif. *Scale: 1:24,000 *Date of Map: 1965, photorevised 1981



*Required information

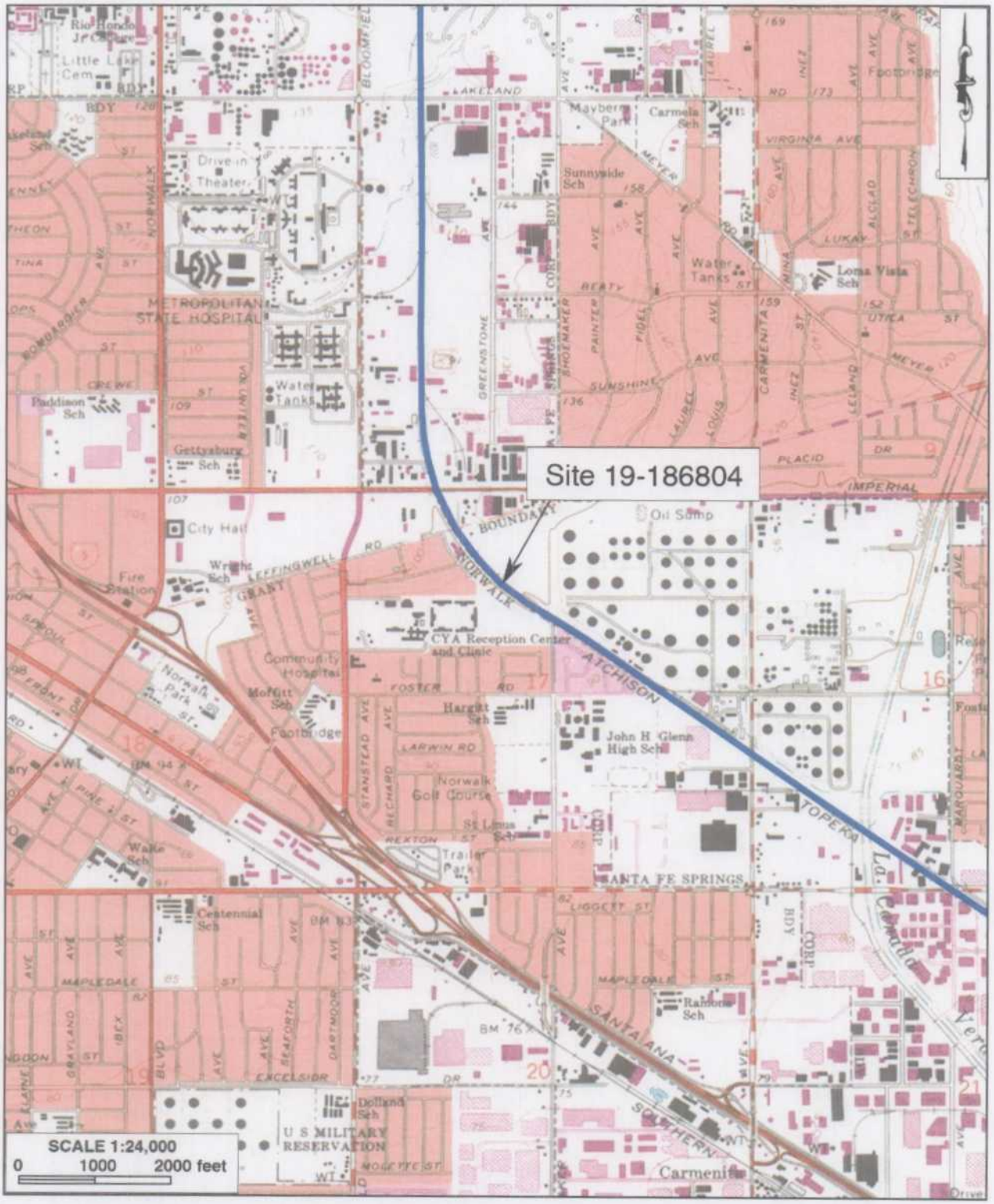
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804 (Update)
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

*Map Name: Whittier, Calif. *Scale: 1:24,000 *Date of Map: 1965, photorevised 1981



*Required information

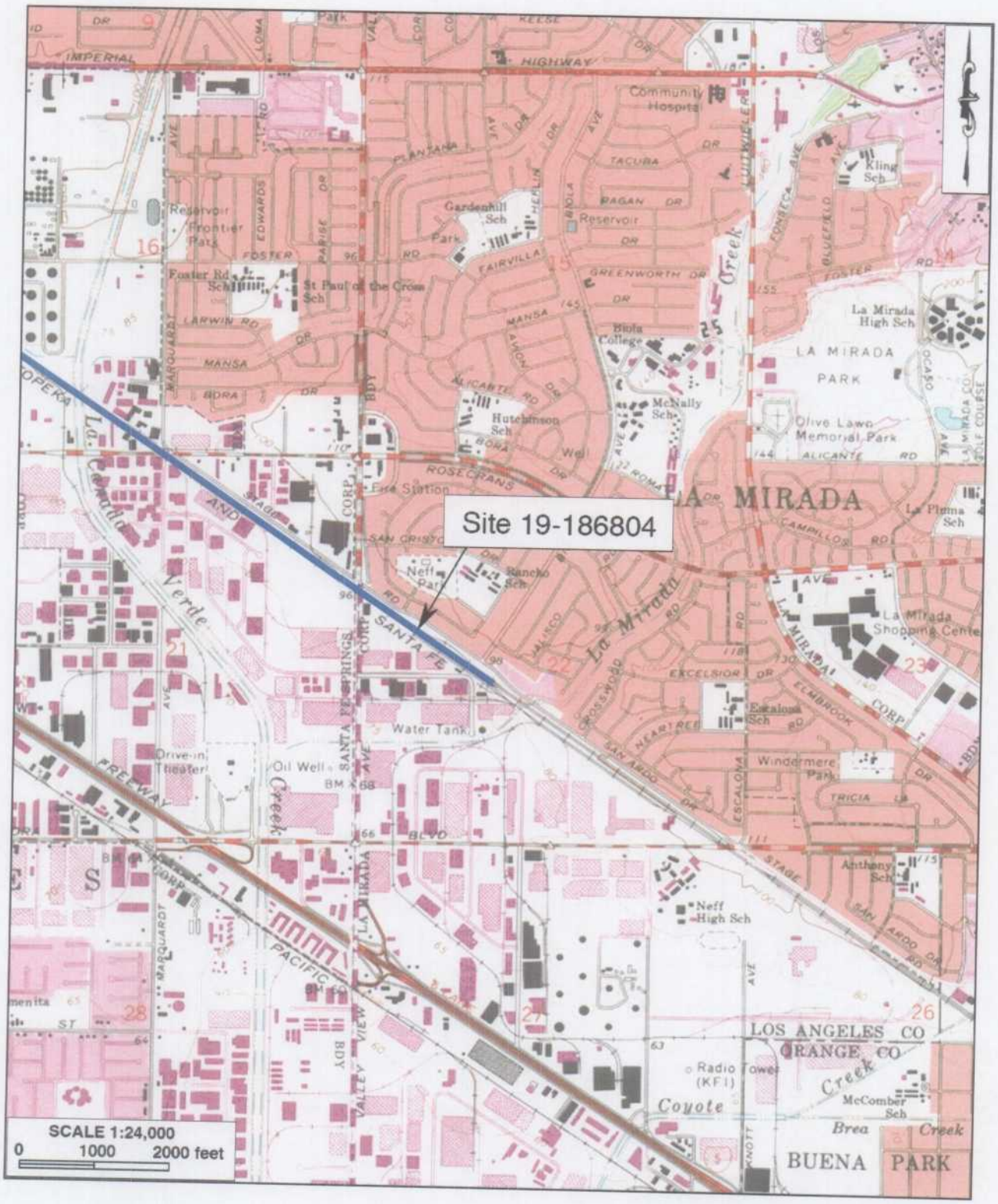
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804 (Update)
HRI #
Trinomial

*Resource Name or # (Assigned by recorder) CRM TECH 2334-1H

*Map Name: Whittier, Calif. *Scale: 1:24,000 *Date of Map: 1965, photorevised 1981



DPR 523J (1/95)

*Required information

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary # 19-186804 (Update)
HRI #
Trinomial

Resource name or # (Assigned by recorder) CRM TECH 2334-1H

Photos Taken by Daniel Ballester *Date June 21, 2002 √ Continuation ___ Update



Typical view of the existing railroad line



Concrete culvert across the railroad bed

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # 19-186804/30-176663
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD UPDATE

Page 1 of 27

*NRHP Status Code

*RESOURCE NAME OR # Burlington Northern Santa Fe Railway

B1. Historic Name: Atchison, Topeka and Santa Fe Railway
B2. Common Name: Burlington Northern Santa Fe Railway
B3. Original Use: Railroad**B4. Present Use:** Railroad
*B5. Architectural Style: **NA**
*B6. Construction History: **(Construction date, alterations, and date of alterations)**
Most of the railroad within this site was constructed in 1885-1888 by the Riverside, Santa Ana and Los Angeles Railway Com pany, an ATSF Subsidiary, as part of the ATSF main line from Los Angeles to Orange and San Diego.

*B7. Moved? xNo ☐Yes ☐Unknown Date: Original Location:
*B8. Related Features: Bridge,s culverts and other common railroad features

B9a. Architect: NA. Builder: Santa Fe
*B10. Significance: Theme: Rairoad transportaion
Period of Significance: **1880**
Property Type: **Railroad**
Applicable Criteria: **NA**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) This railroad line at this site is closely associated with the coming of a second transcontinental railroad. This railway helped to contribute to the souther California land boomof the 1880's. This is a operational railway and as such the railway and its associated features do not retain sufficient historic integrity to relate to the sites period of significance and therefor does not apper to be eligible for listing in the National Registor of Historic Places. 1889 Santa Fe built the segment of the railway thru Irvine Ranch.

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: **Orange County Rialroads.**
http://www.anaheimcolony.com/train.htm
2007 Paleontological and Archaeological Assessment Report For The Alton – Bake Layover Facility and El Toro Siding Extenison, City of Irvine, California by Sherri Gust, Steven McCormick and Kim Scott.

B13. Remarks: This is an update to extend the site from Fullerton Station all the way down to the Orange County/ San Diego Border. This segment of the railway is approximately 43 miles

*B14. Evaluator: **Steven McCormick**

*Date of Evaluation: **June 2007**

Sketch map
See series of map sheets attached.

(This space reserved for official comments.)

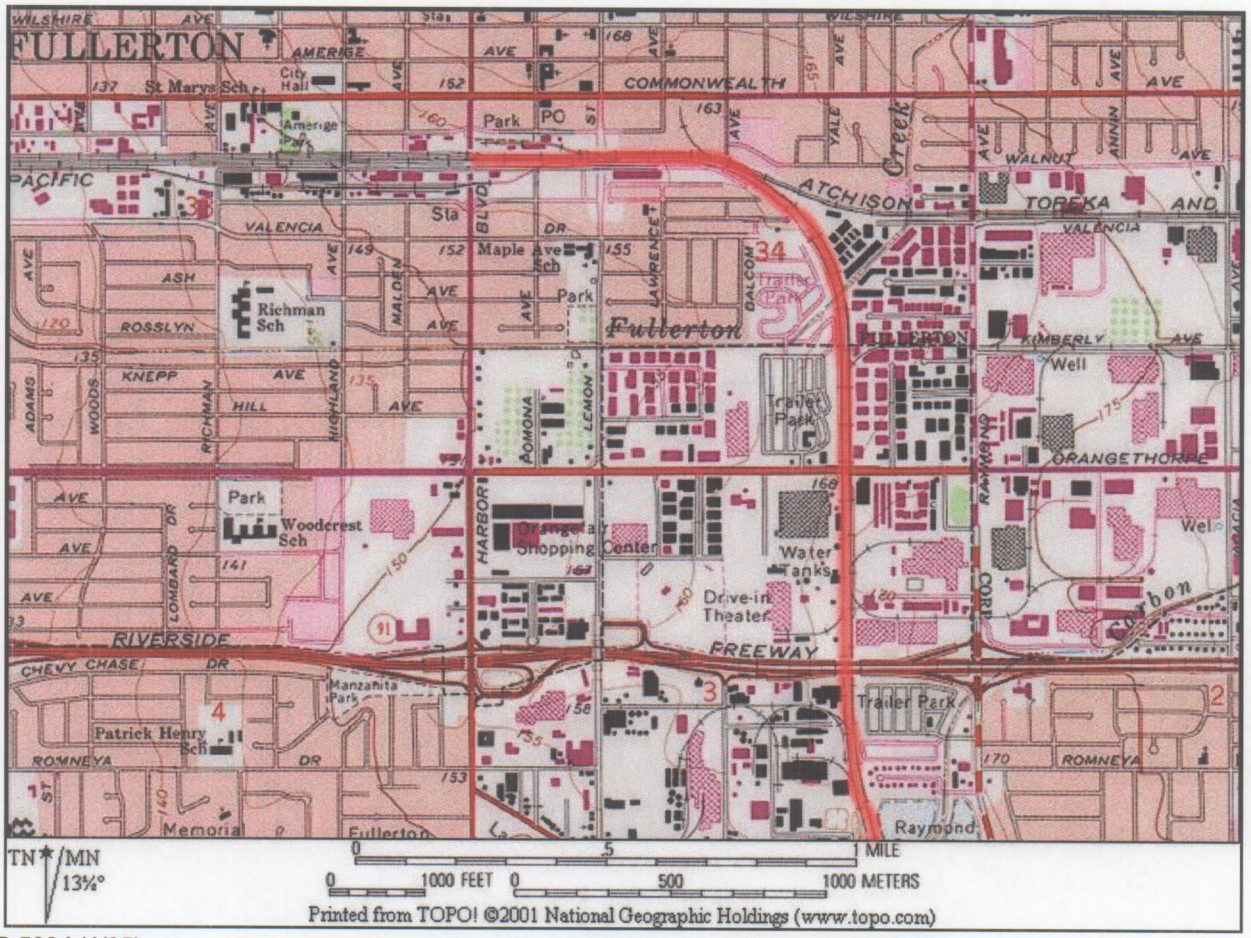
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Anaheim 7.5 Quad *Scale: 1 : 24,000 *Date of Map: 1965 photorevised 1981



DPR 523J (1/95)

*Required information

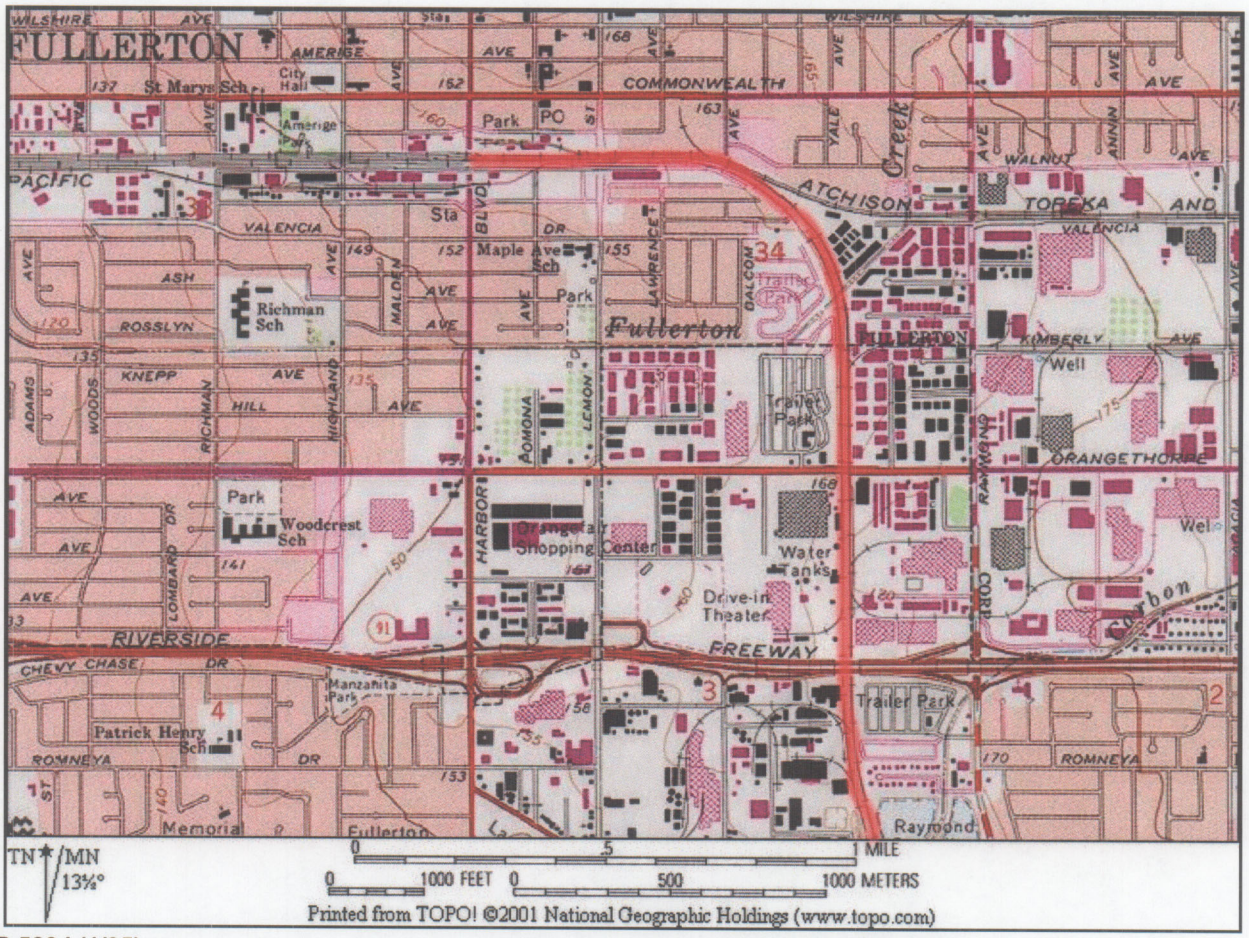
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Anaheim 7.5 Quad *Scale: 1 : 24,000 *Date of Map: 1965 photorevised 1981



Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

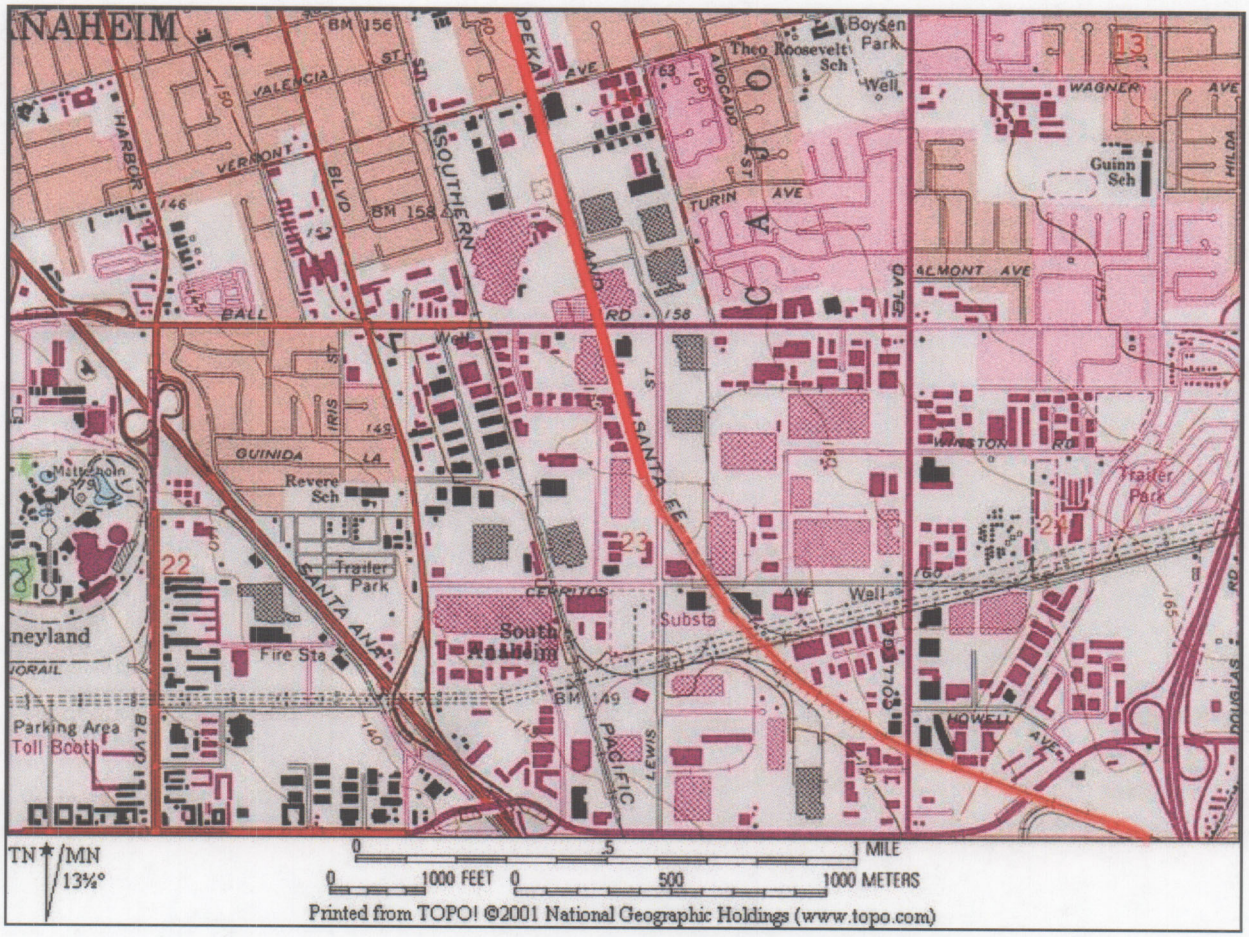
*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Anaheim 7.5 Quad *Scale: 1 : 24,000 *Date of Map: 1965 photorevised 1981



DPR 523J (1/95)

*Required information

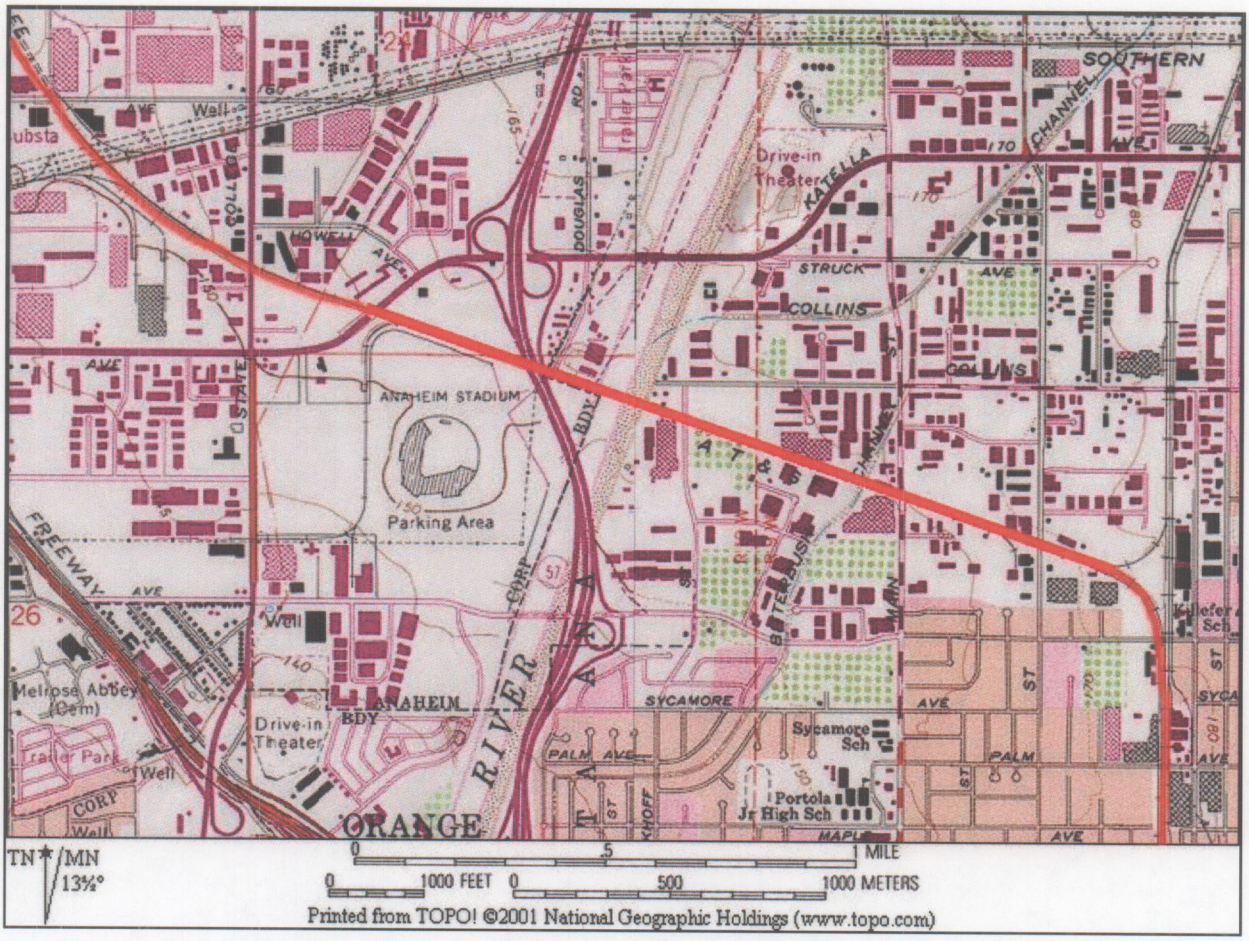
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Anaheim / Orange *Scale: 1 : 24,000 *Date of Map: 1965/1964 photorevised 1981



DPR 523J (1/95)

*Required information

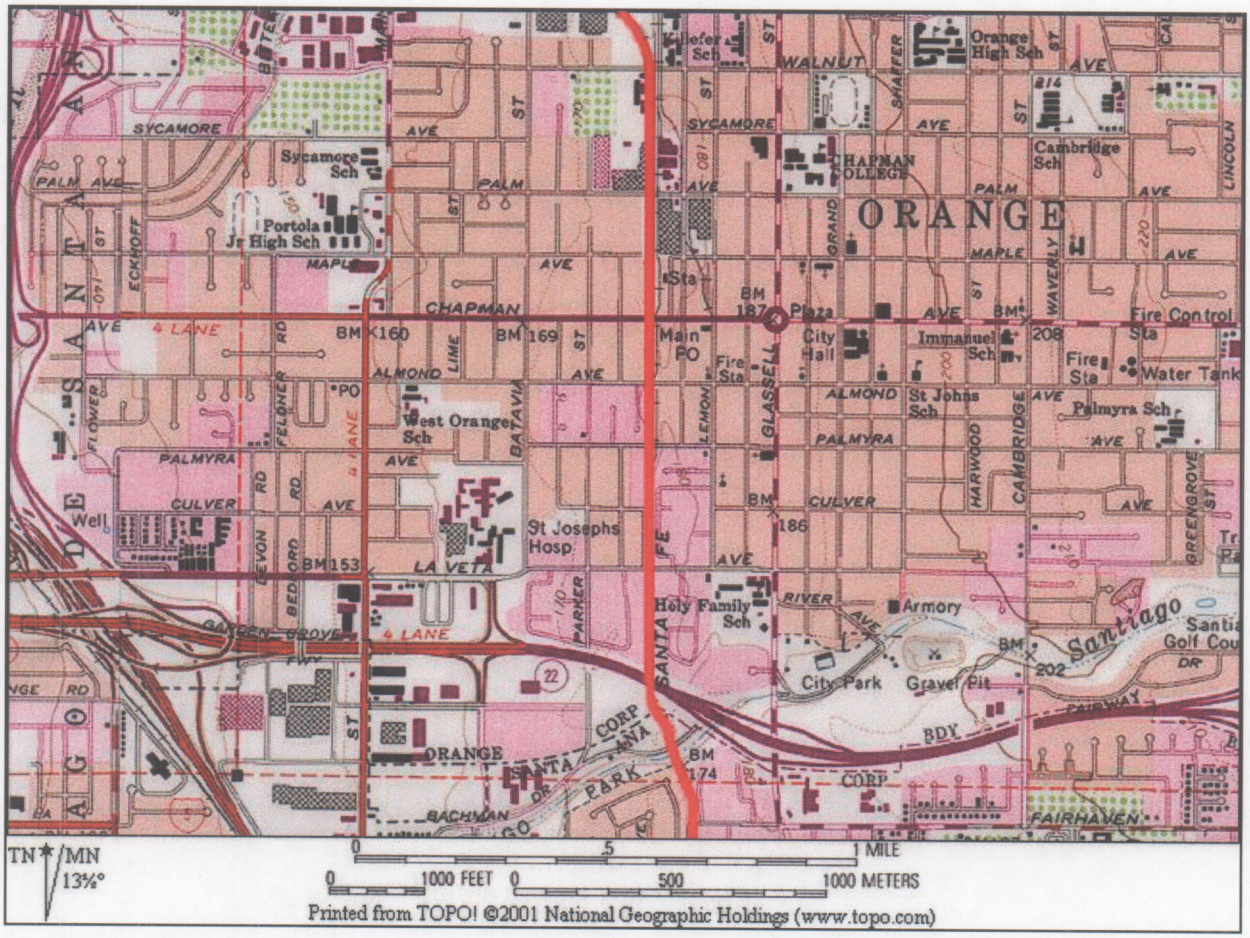
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Orange *Scale: 1 : 24,000 *Date of Map: 1964 photorevised 1981



DPR 523J (1/95)

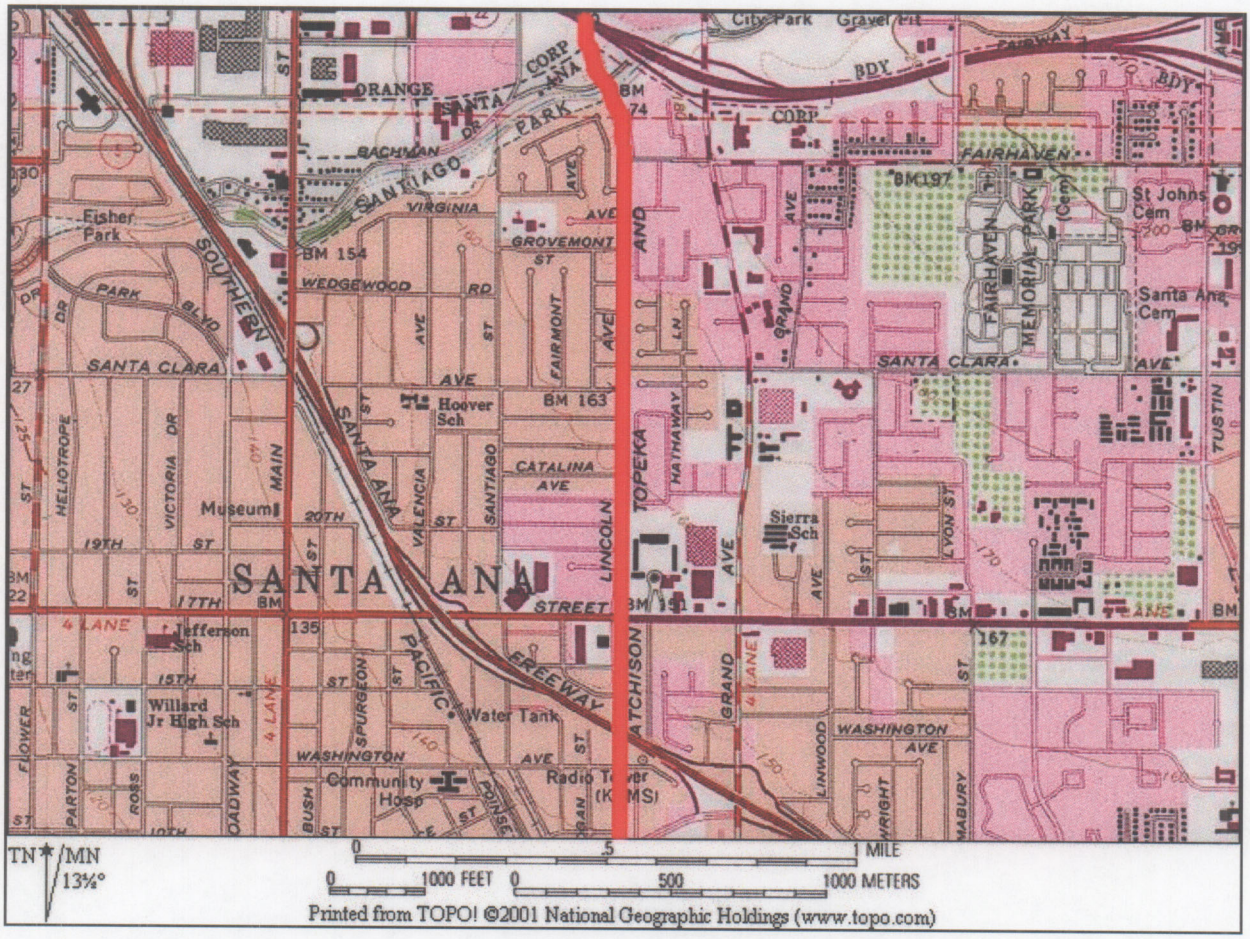
*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Orange *Scale: 1 : 24,000 *Date of Map: 1964 photorevised 1981



DPR 523J (1/95)

*Required information

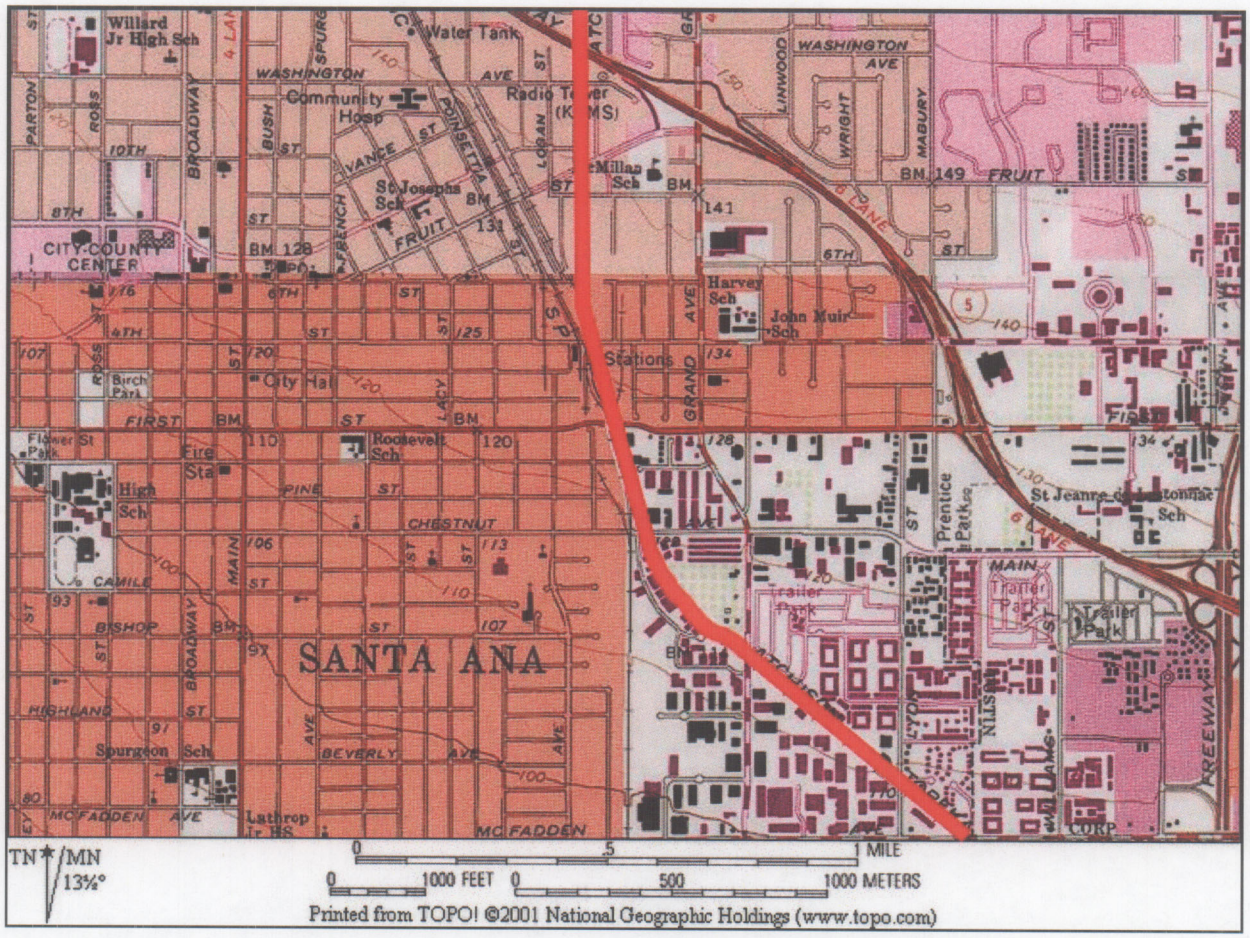
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

Page 8 of 27 *Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Tustin *Scale: 1 : 24,000 *Date of Map: 1965 photorevised 1981



DPR 523J (1/95)

*Required information

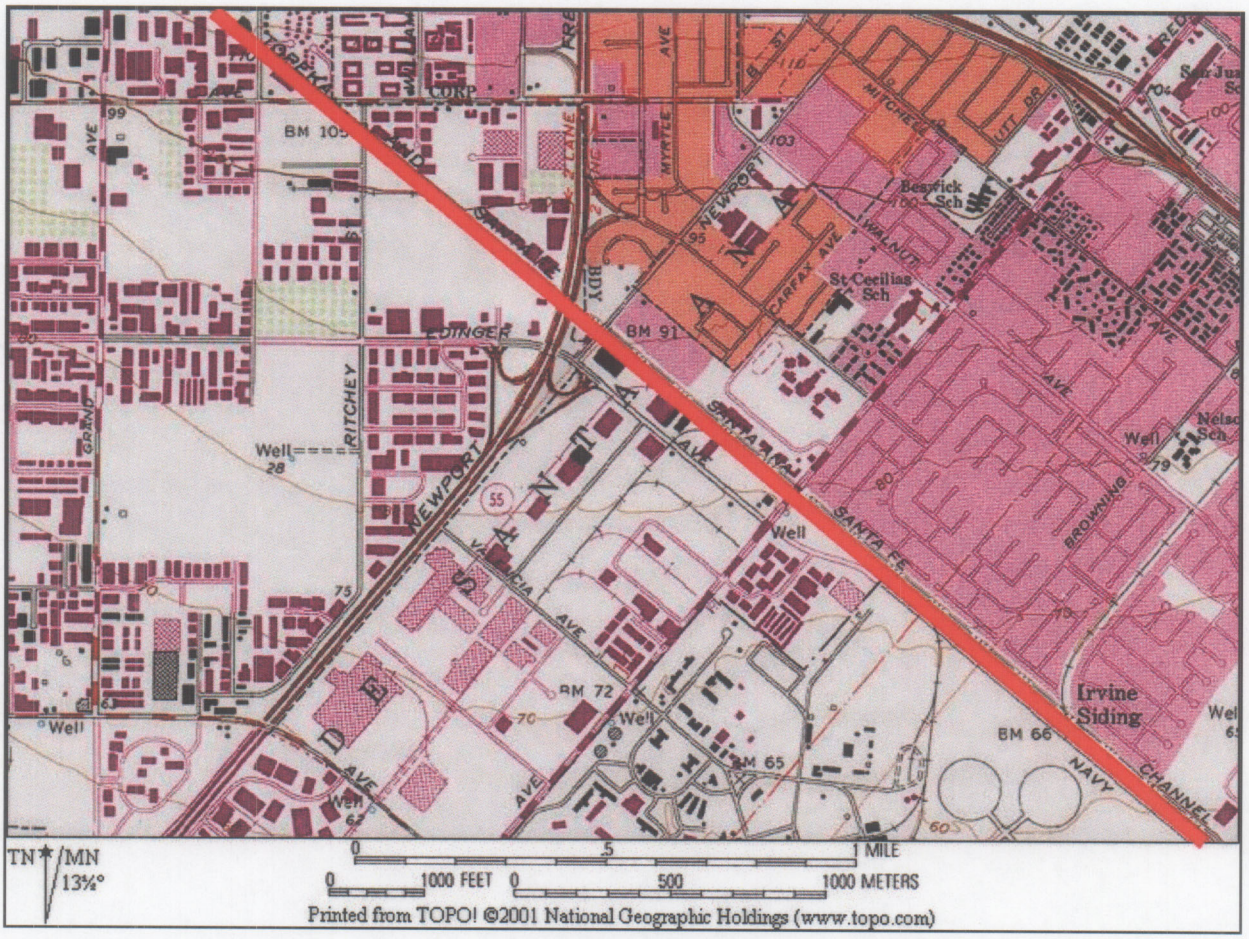
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** Tustin ***Scale:** 1 : 24,000 ***Date of Map:** 1965 photorevised 1981



DPR 523J (1/95)

*Required information

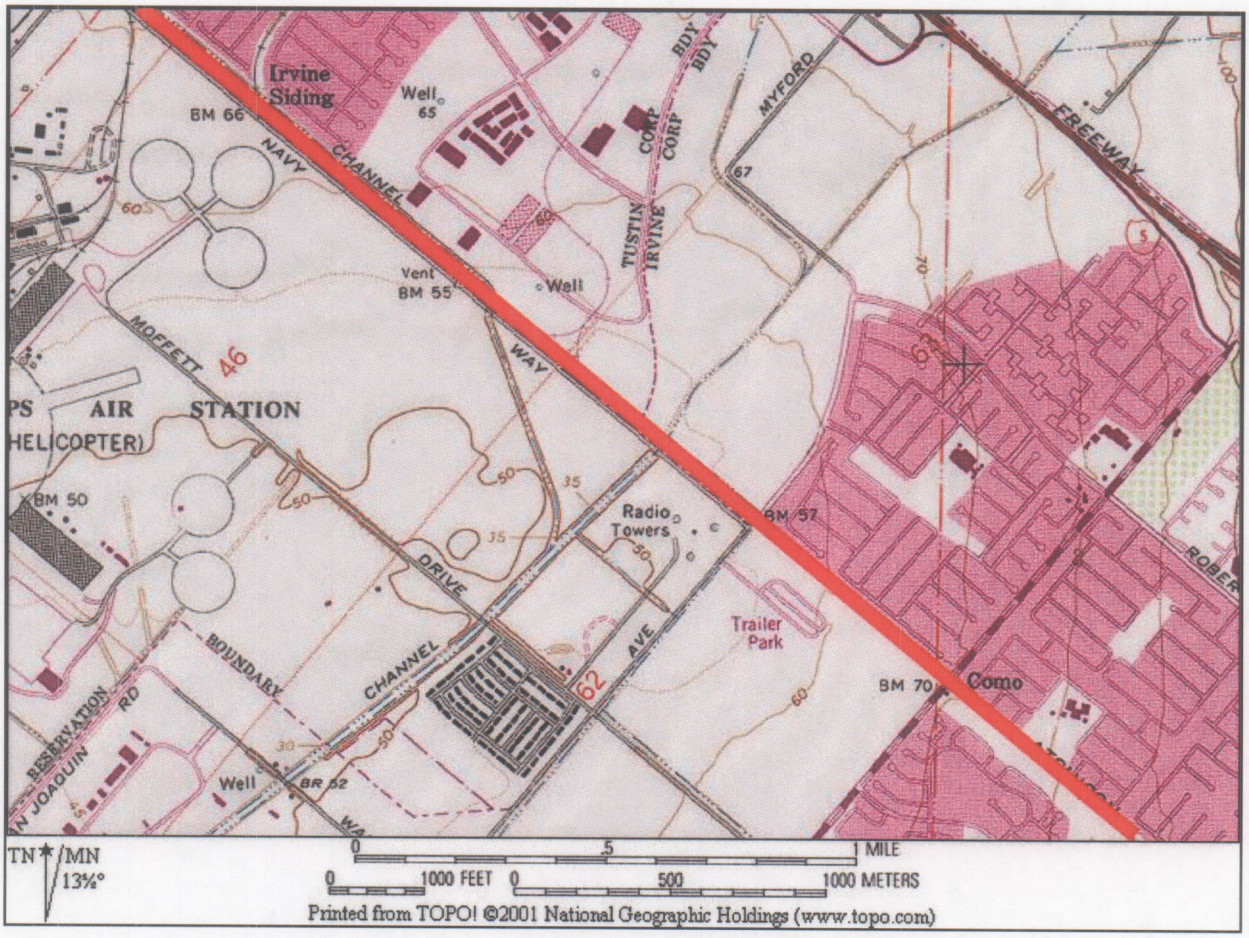
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** Tustin ***Scale:** 1 : 24,000 ***Date of Map:** 1965 photorevised 1981



DPR 523J (1/95)

*Required information

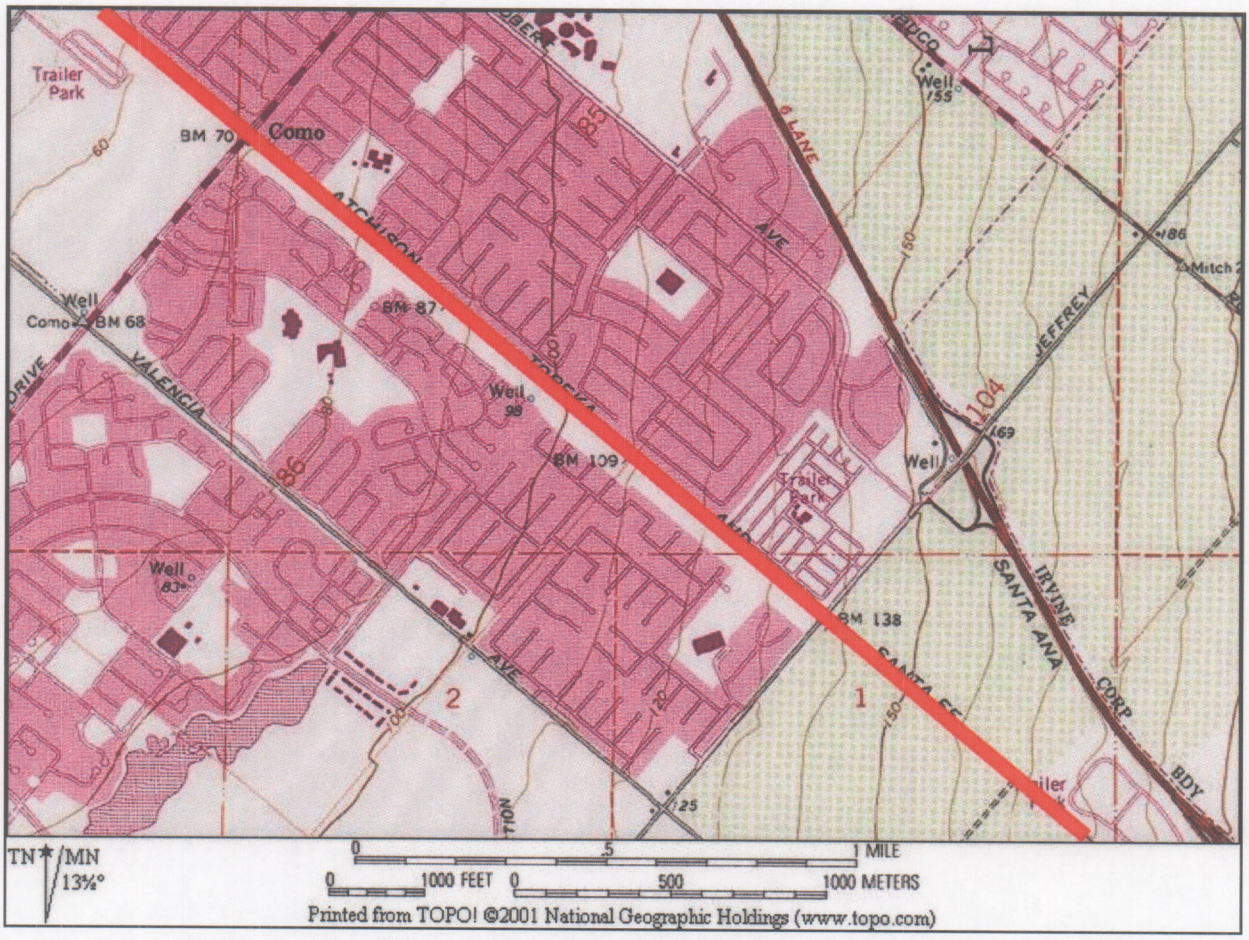
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** Tustin ***Scale:** 1 : 24,000 ***Date of Map:** 1965 photorevised 1981



*Required information

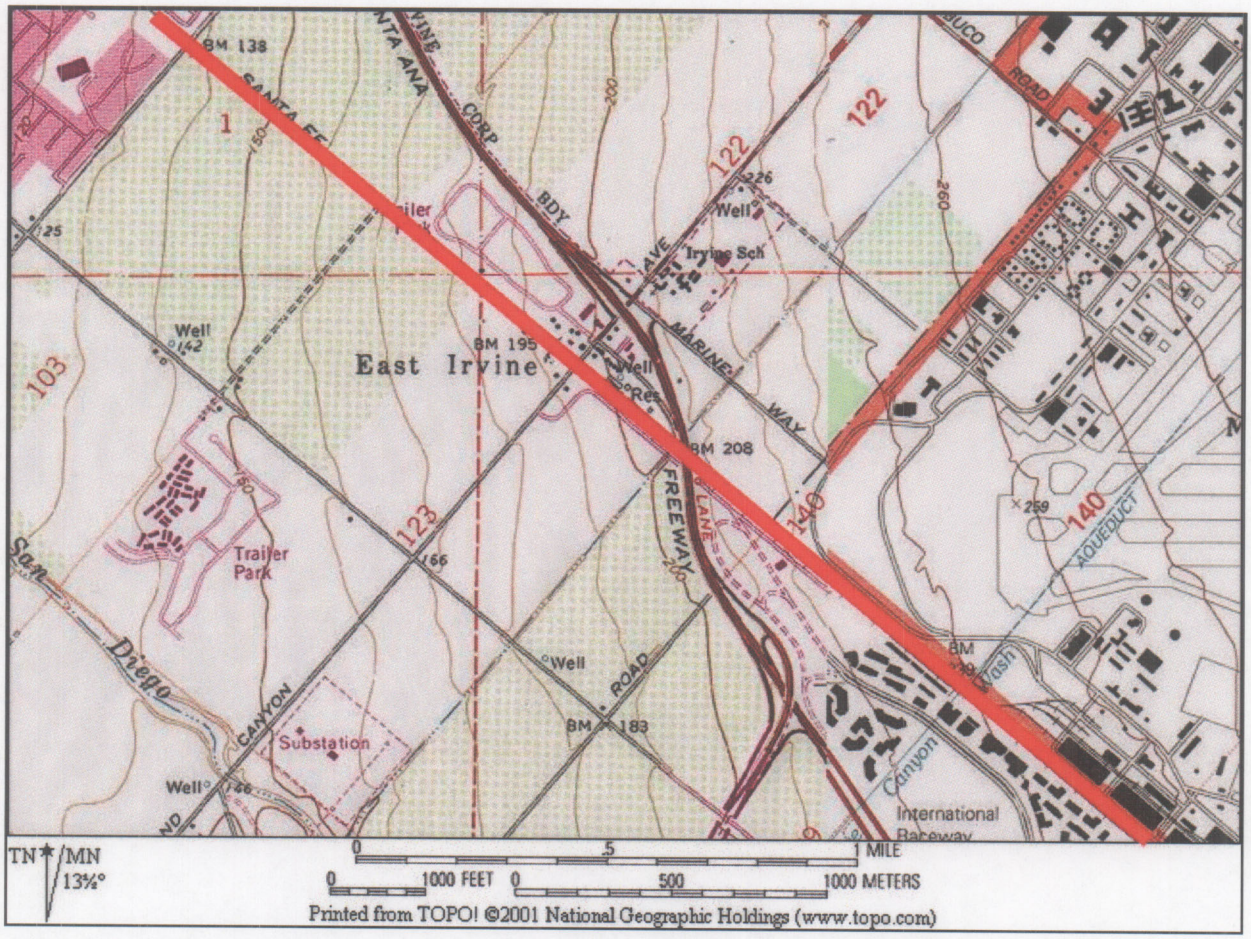
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Tustin / El Toro *Scale: 1 : 24,000 *Date of Map: 1965 photorevised 1981/1997



DPR 523J (1/95)

*Required information

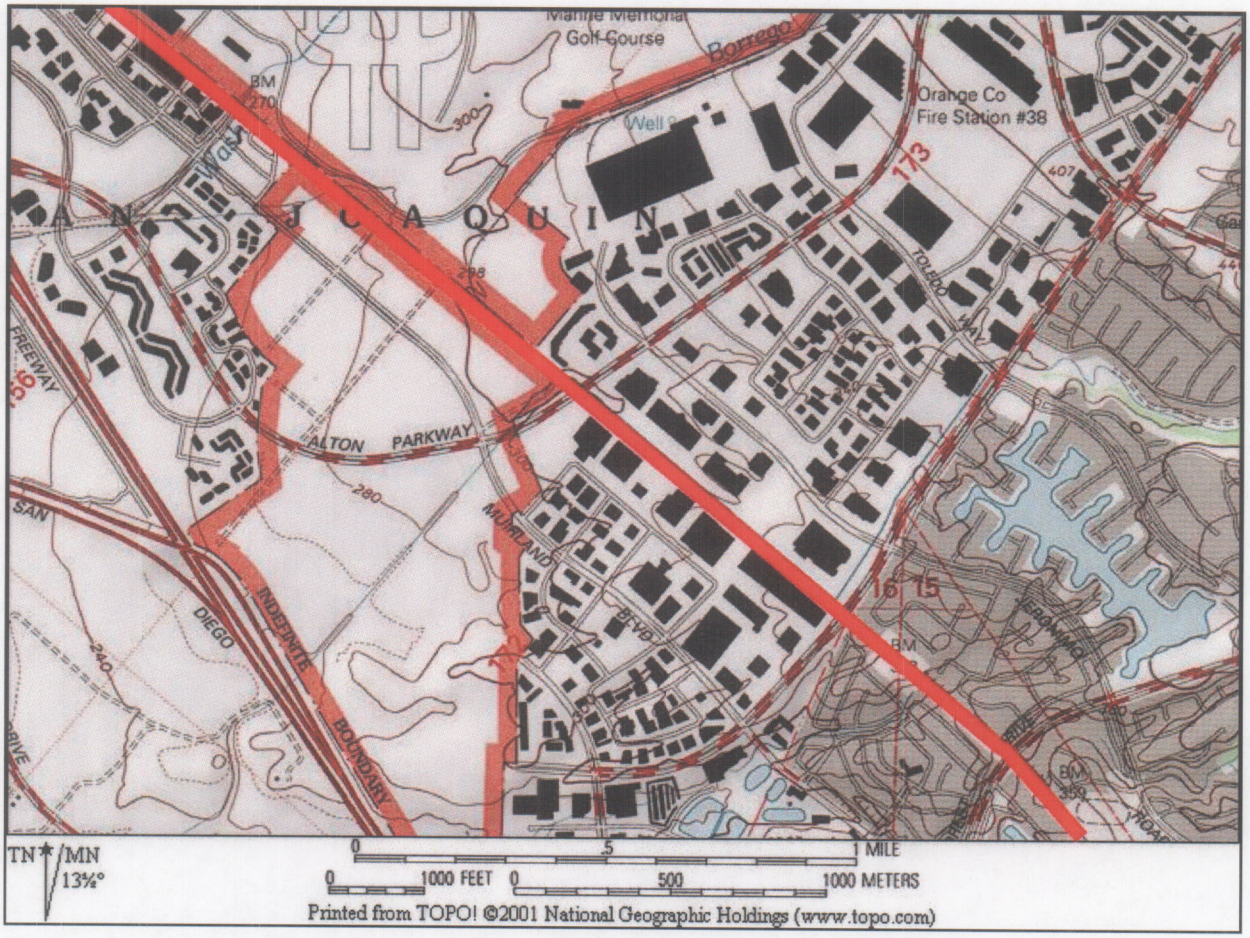
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

Page 13 of 27 *Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: El Toro *Scale: 1 : 24,000 *Date of Map: 1997



DPR 523J (1/95)

*Required information

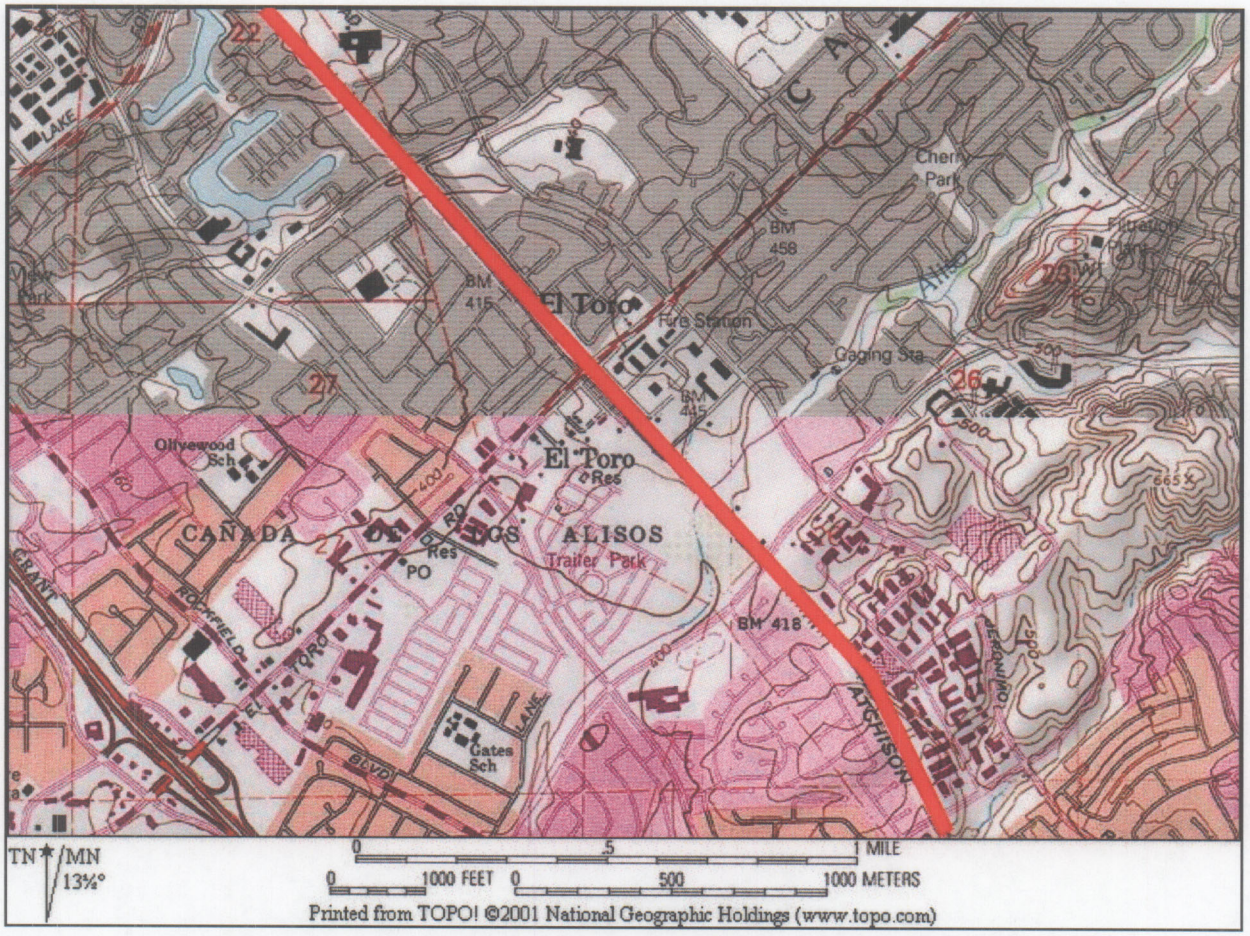
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** El Toro / San Juan Capistrano ***Scale:** 1 : 24,000 ***Date of Map:** 1997/1968 photorevised 1981



DPR 523J (1/95)

*Required information

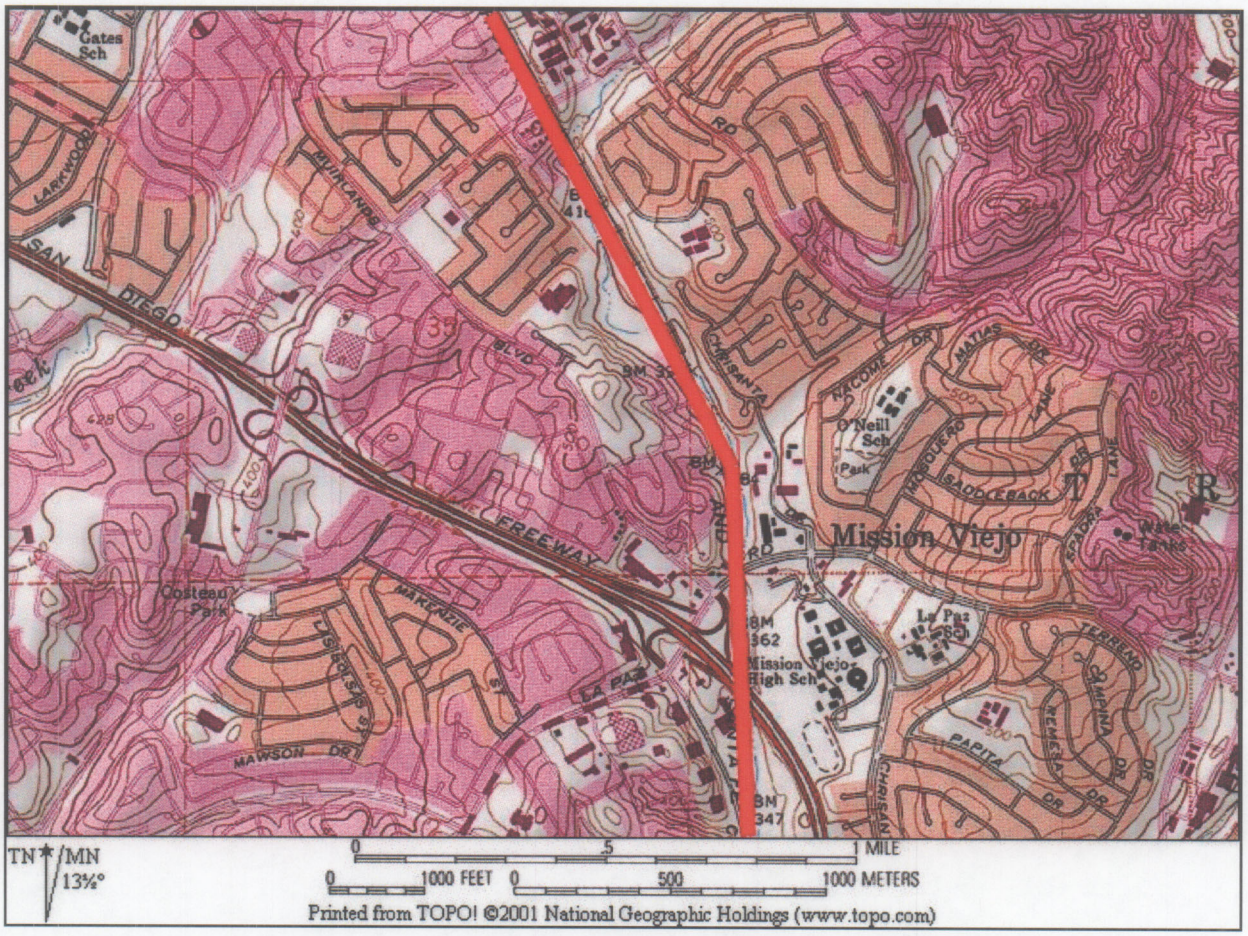
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Juan Capistrano *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1981



DPR 523J (1/95)

*Required information

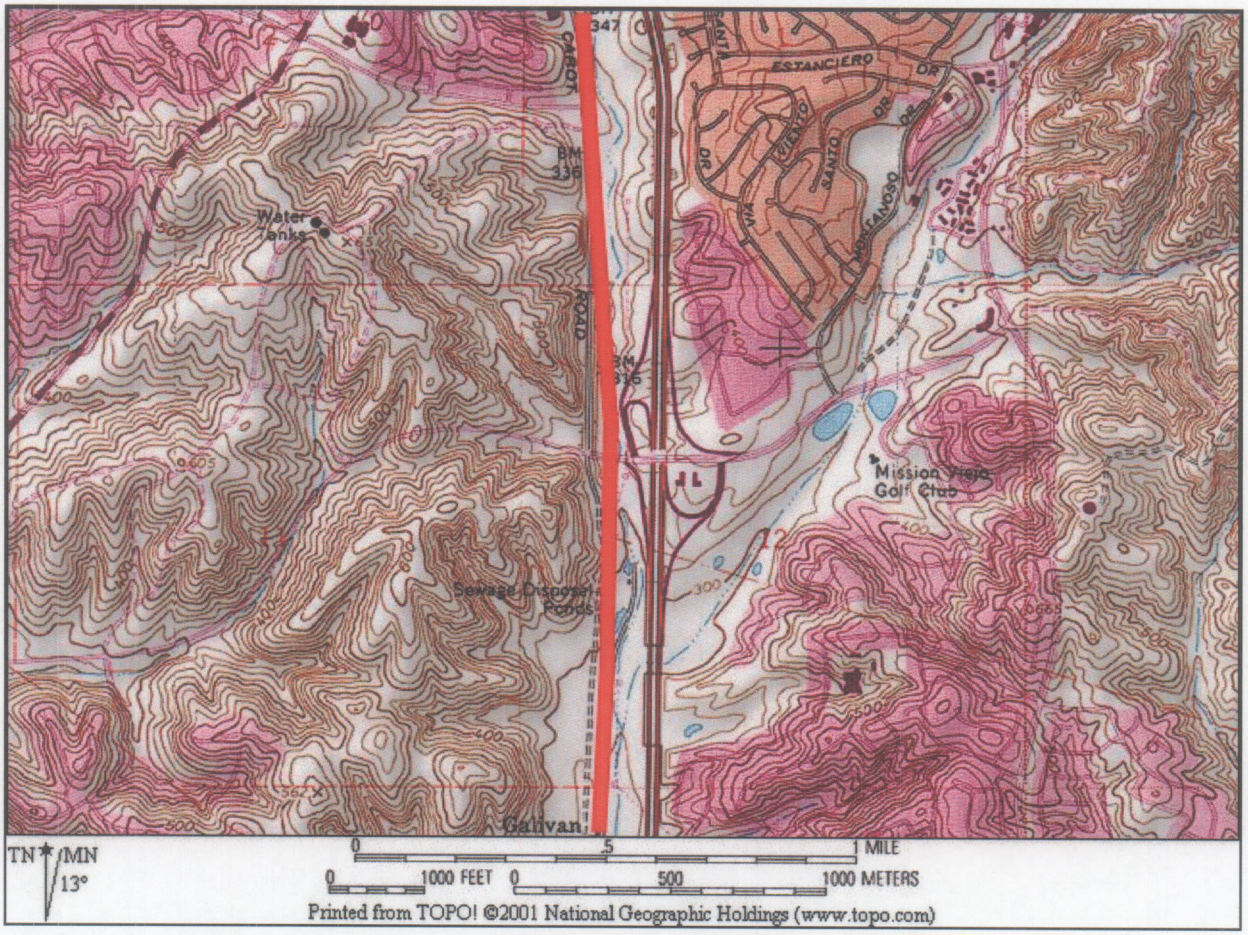
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Juan Capistrano *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1981



DPR 523J (1/95)

*Required information

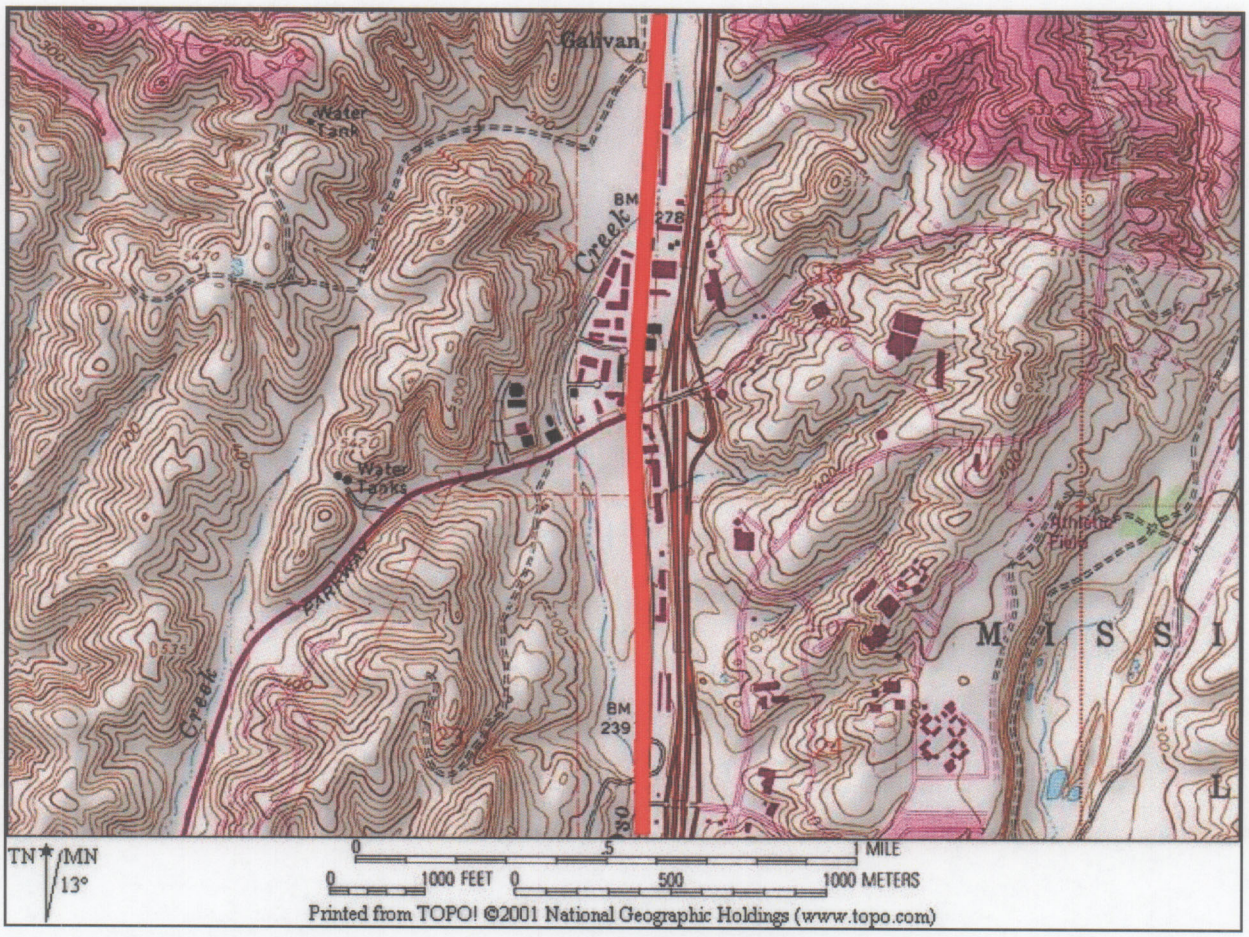
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Juan Capistrano *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1981



DPR 523J (1/95)

*Required information

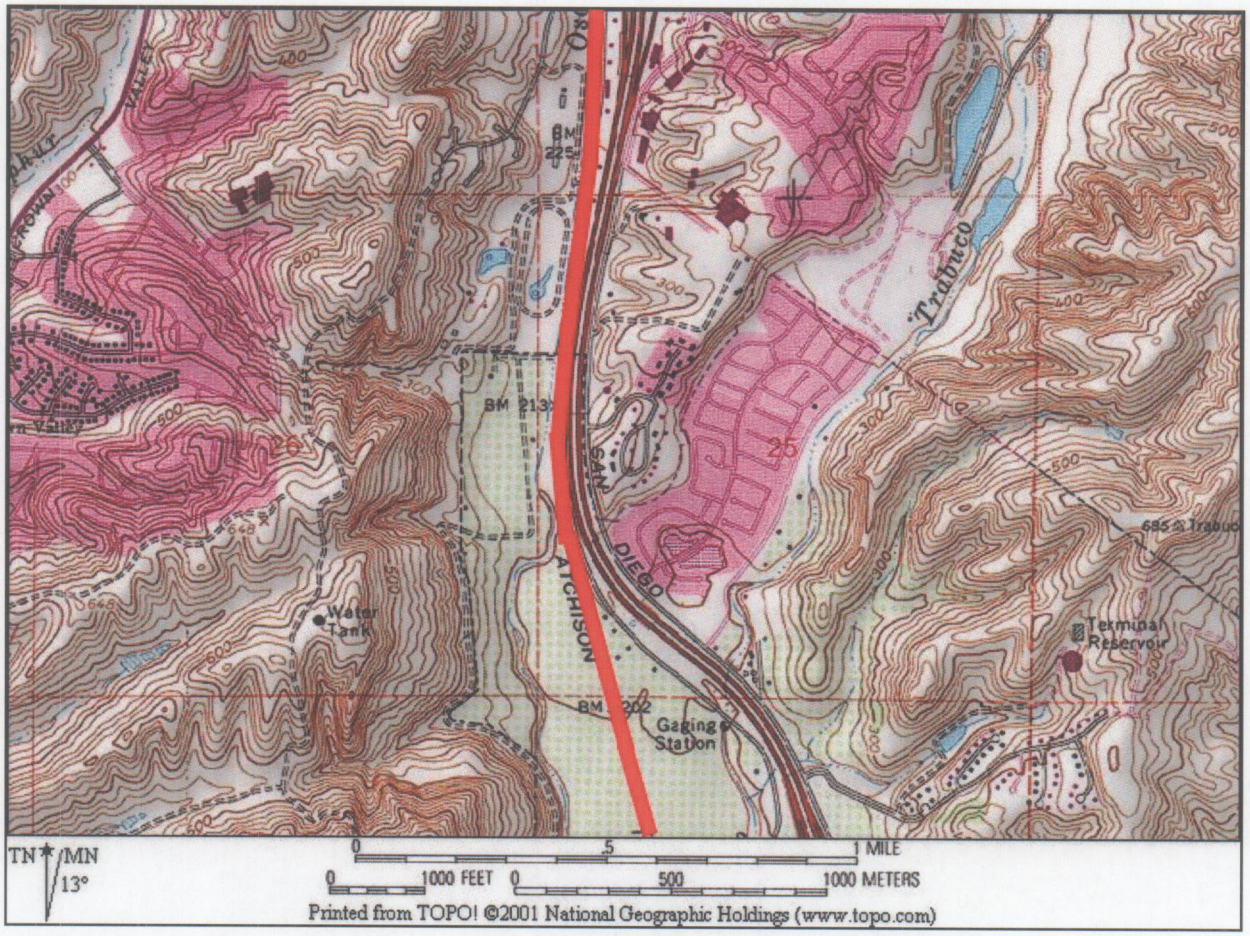
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Juan Capistrano *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1981



DPR 523J (1/95)

*Required information

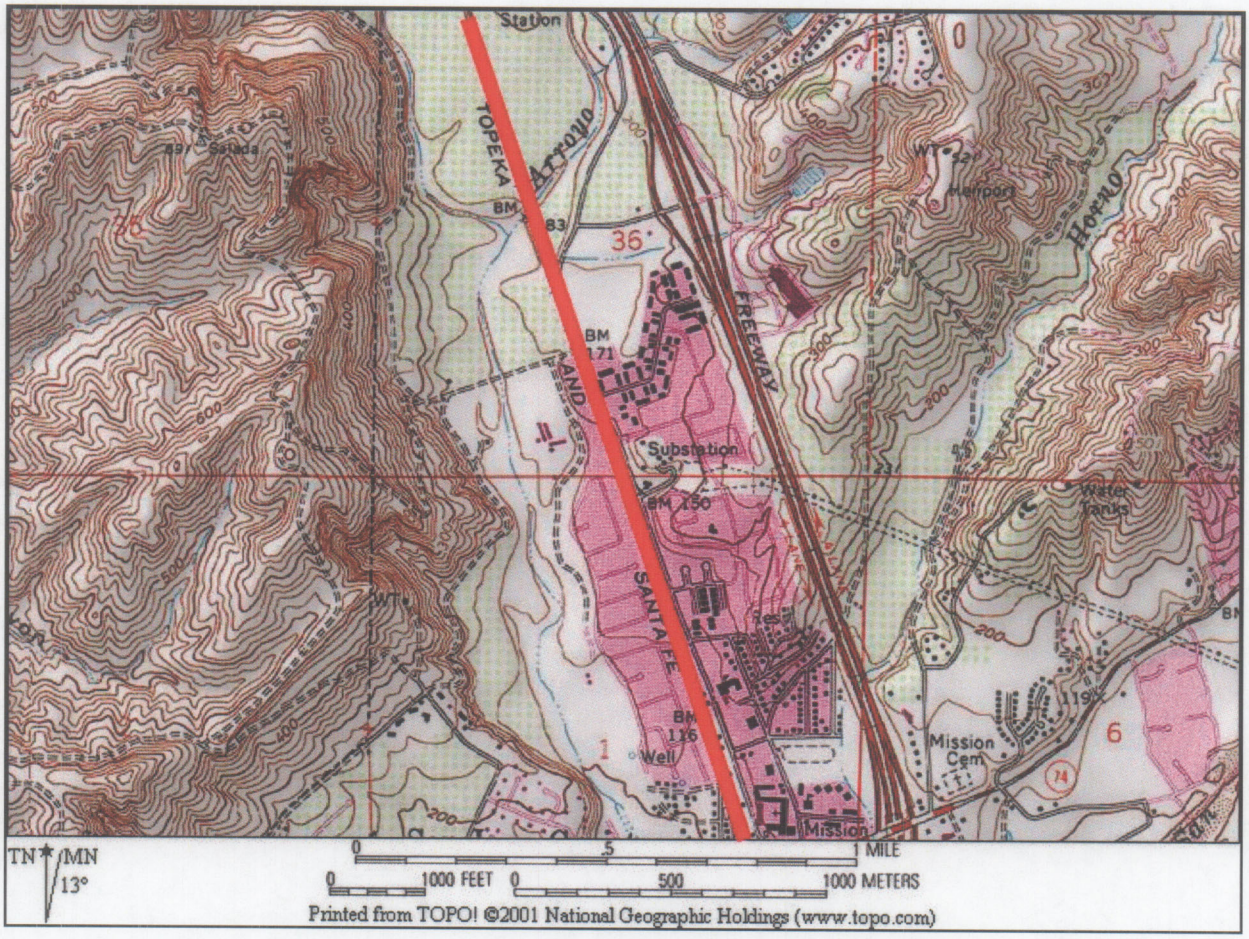
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Juan Capistrano *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1981



DPR 523J (1/95)

*Required information

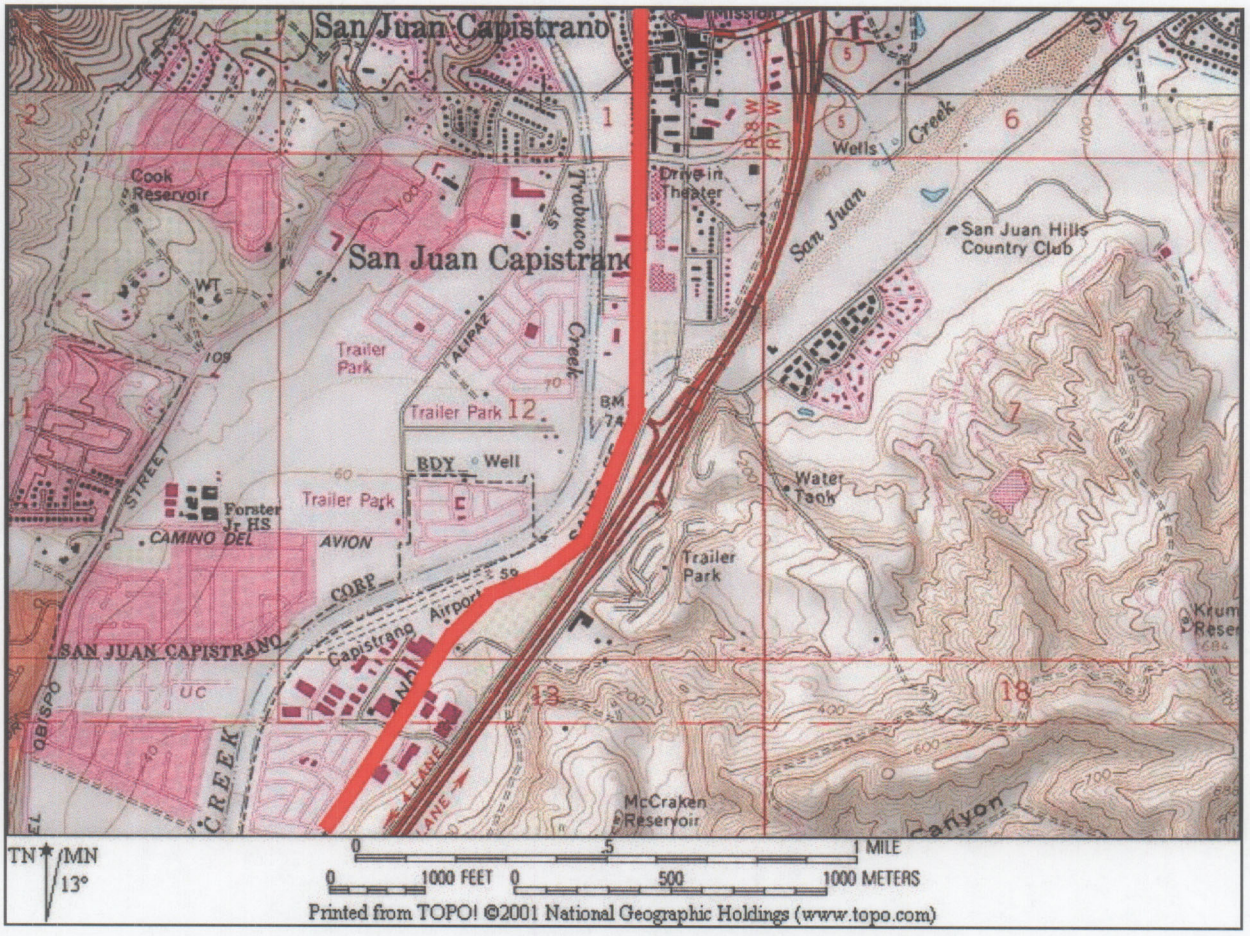
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** Dana Point ***Scale:** 1 : 24,000 ***Date of Map:** 1968 photorevised 1975



DPR 523J (1/95)

*Required information

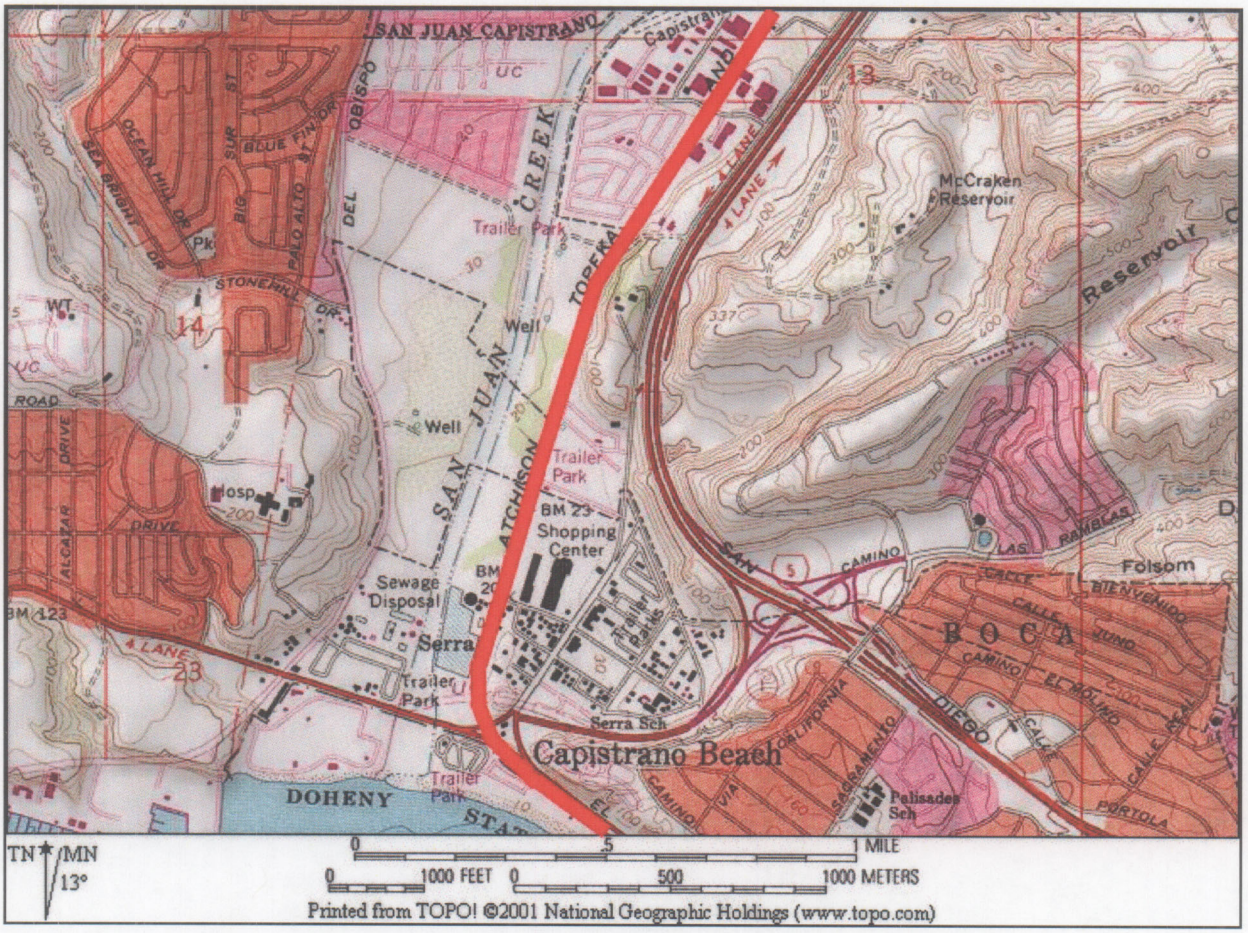
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Dana Point *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1975



DPR 523J (1/95)

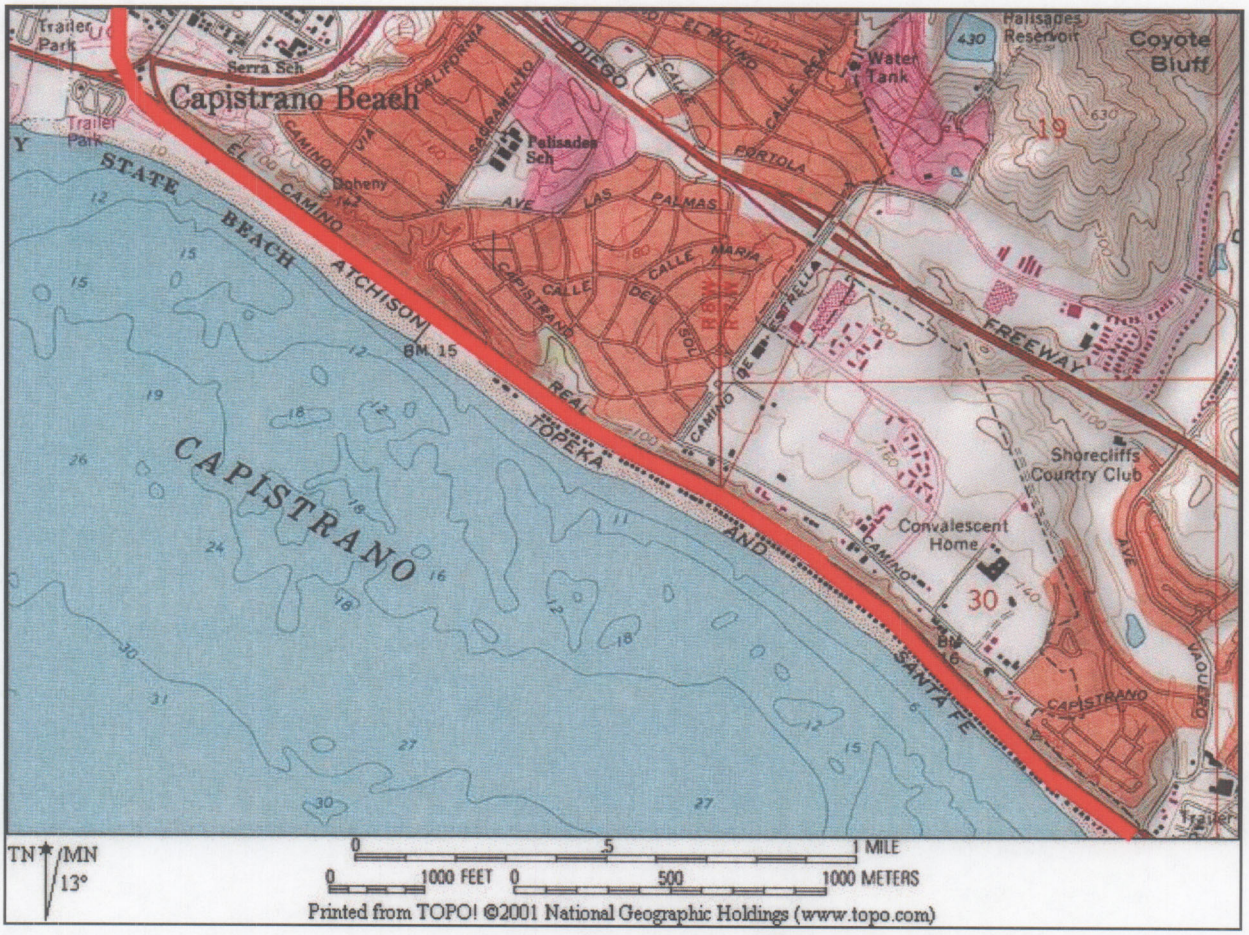
*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Dana Point *Scale: 1 : 24,000 *Date of Map: 1968 photorevised 1975



DPR 523J (1/95)

*Required information

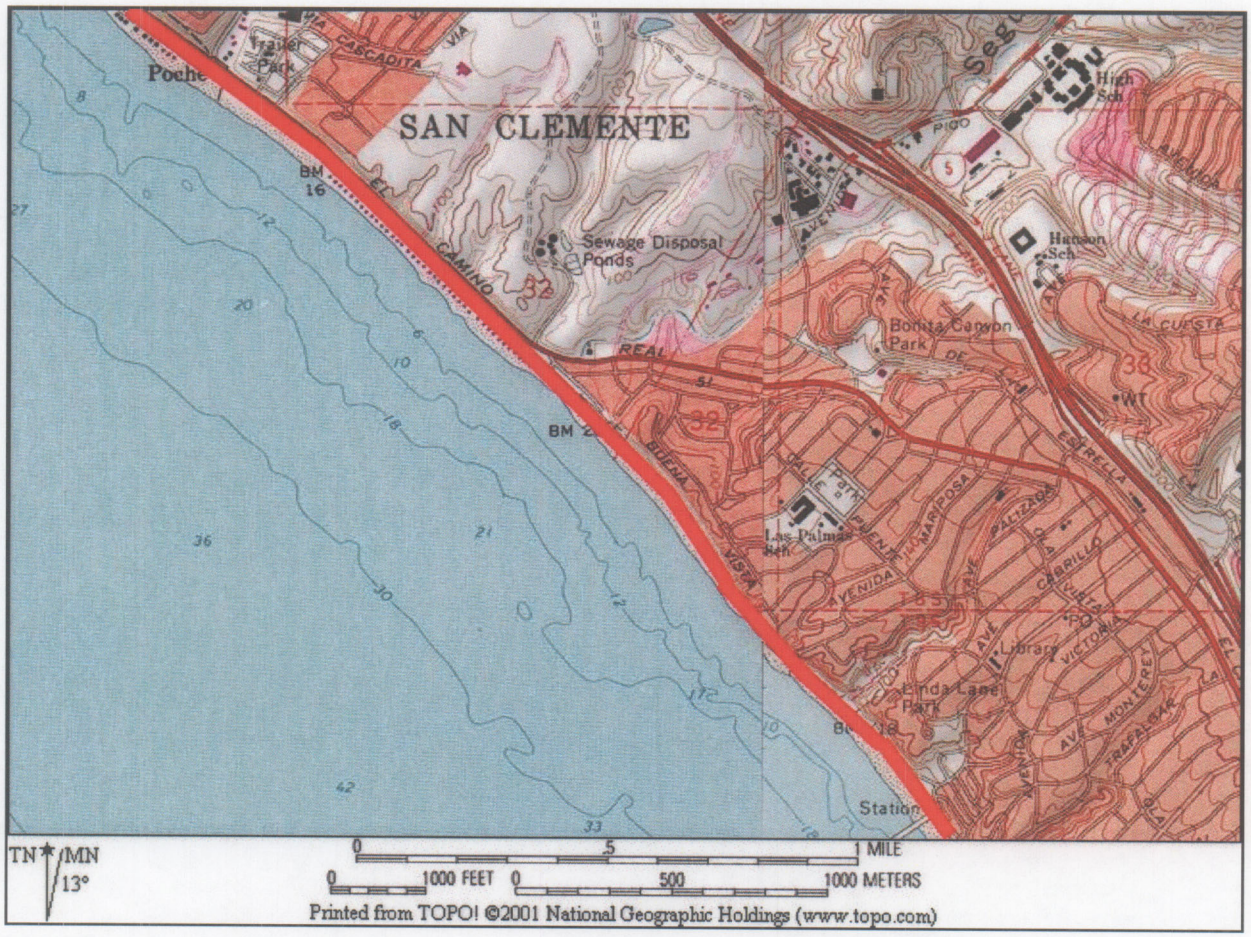
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: Dana Point/ San Clemente: 1 : 24,000 *Date of Map: 1968 photorevised 1975



DPR 523J (1/95)

*Required information

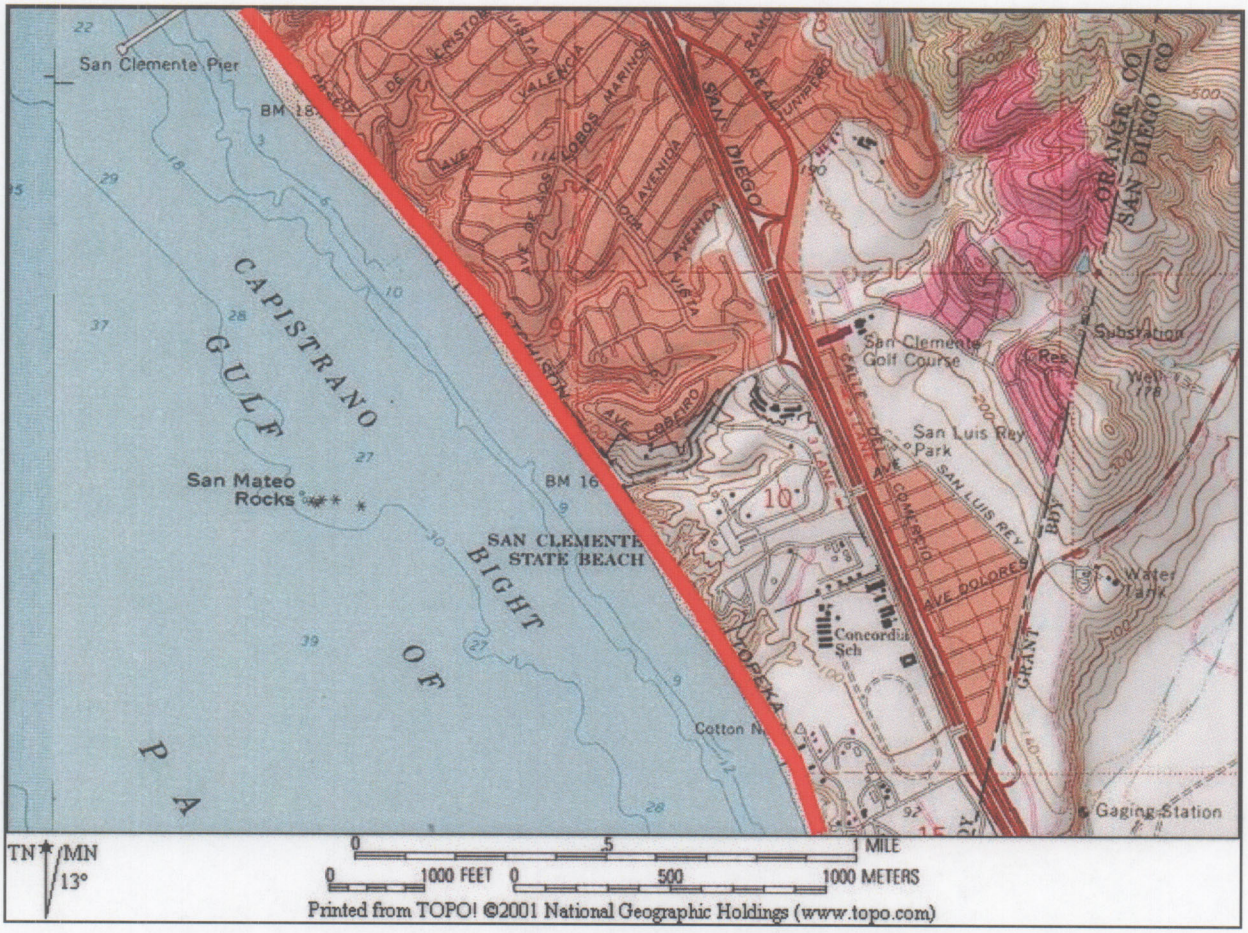
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

*Resource Name or #: Burlington Northern Santa Fe Railway

*Map Name: San Clemente: 1 : 24,000 *Date of Map: 1968 photorevised 1975



Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

*Required information

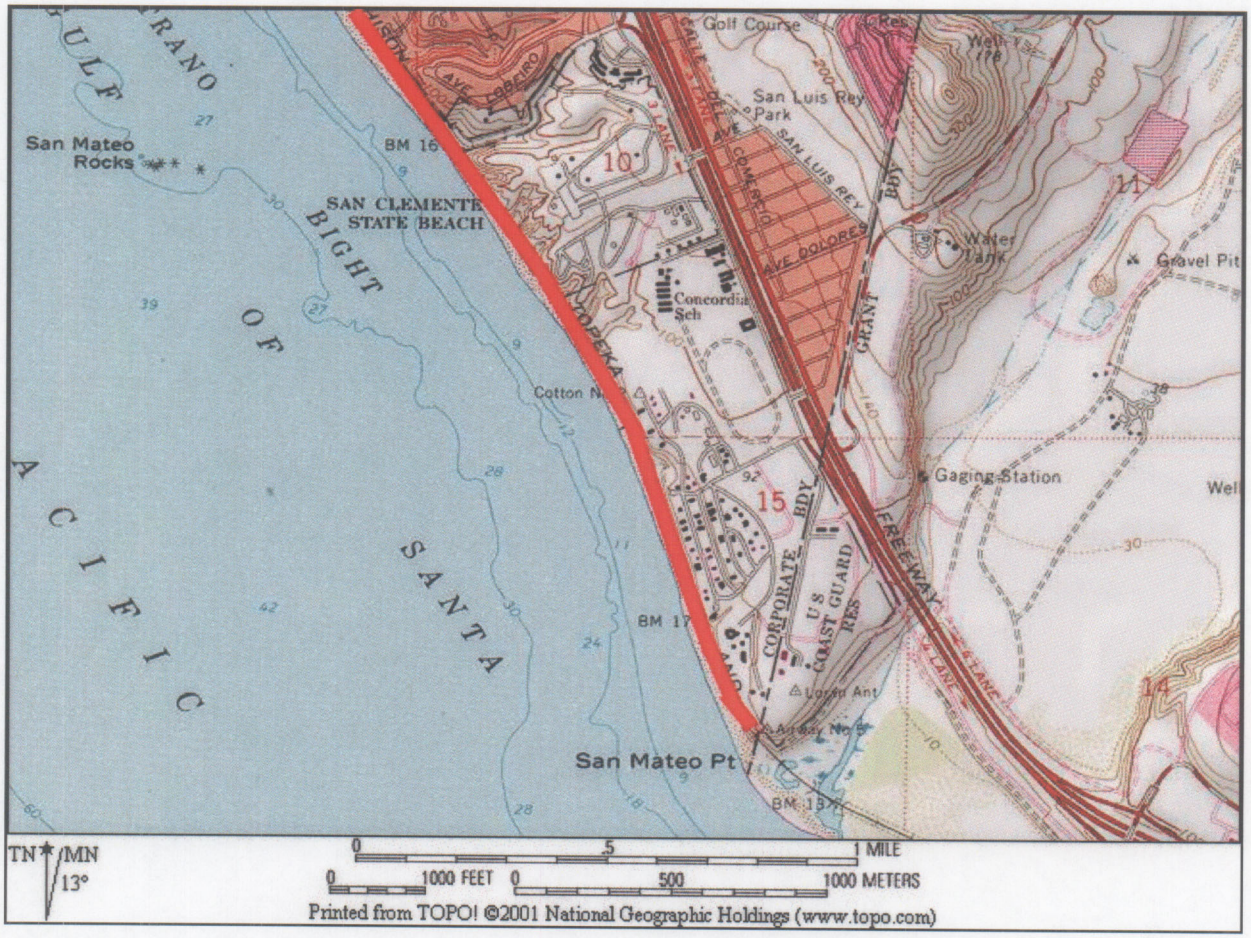
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 19-186804/30-17663
HRI#
Trinomial

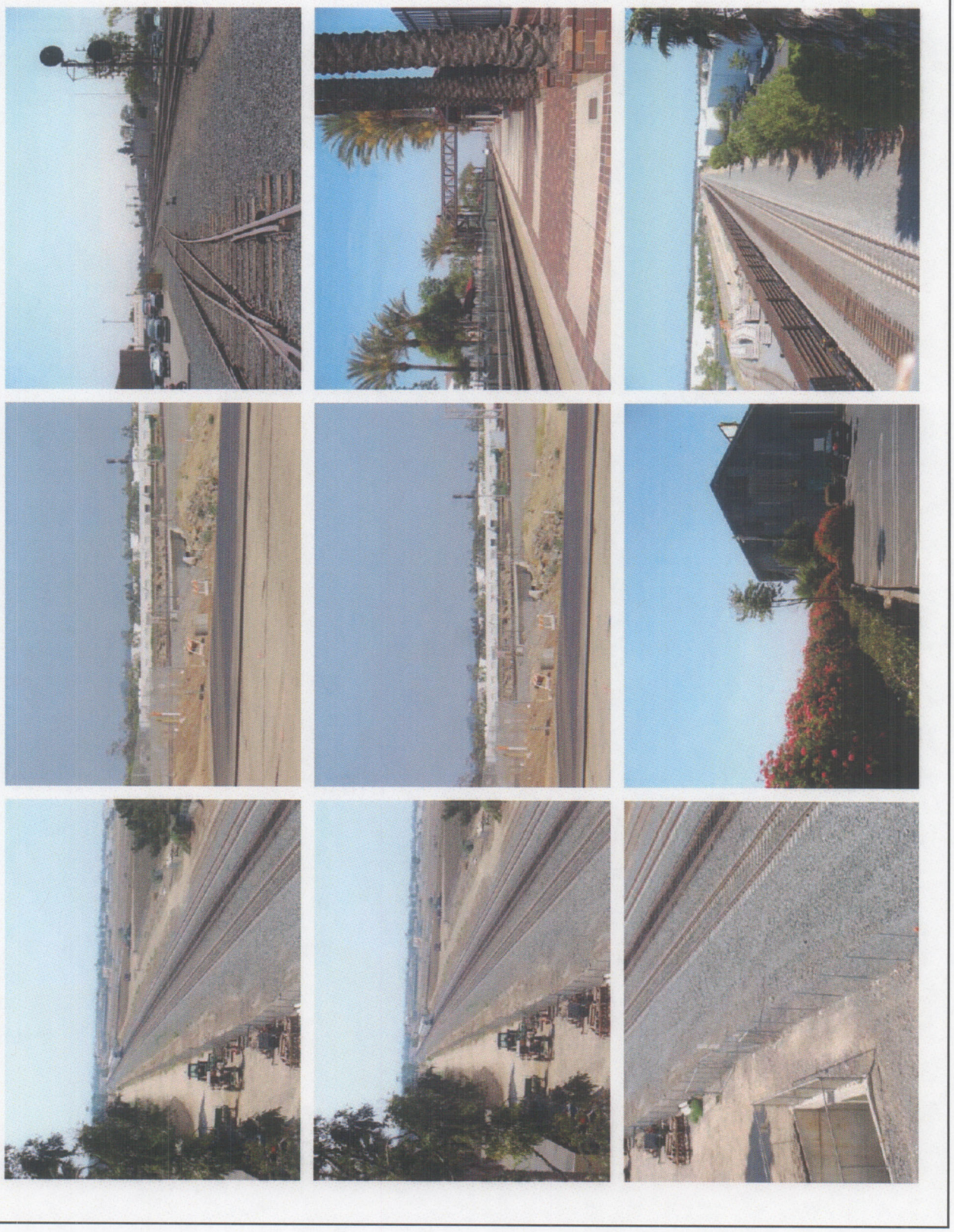
***Resource Name or #:** Burlington Northern Santa Fe Railway

***Map Name:** San Clemente: 1 : 24,000 ***Date of Map:** 1968 photorevised 1975



DPR 523J (1/95)

*Required information





***Recorded by:** S McCormick ***Date:** June 2007 ☐ Continuation x Update

DPR 523L (1/95) ***Required information**

State of California — The Resources Agency | Primary # 19-186804/30-17663

DEPARTMENT OF PARKS AND RECREATION | HRI#

PHOTOGRAPH RECORD | Trinomial

Page of | Resource Name or #: Burlington Northern Santa Fe Railway | Year 2007

Camera Format: | **Lens Size:** 35mm

Film Type and Speed: Digital | **Negatives Kept at:** Cogstone

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward	Accession #
5	24		1	Fullerton tracks	east	
5	24		2	Fullerton Station	west	
5	24		3	Proposed Siding area between alton and bake	east	
5	24		4	tracks behine Irvine spectrum	north	
5	24		5	tracks behine Irvine spectrum	north	
5	24		6	Canery	west	
5	24		7	tracks after alton pkwy from overpass	west	
5	24		8	tracks after alton pkwy	west	
5	24		9	tracks after alton pkwy	down	
5	24		10	Paseo de colins bridge	south	
5	24		11	track east of Irvine station	ne	
5	24		12	tracks at orangethorpe	south	
5	24		13	tracks east of fullerton station	north west	
5	24		14	tracks under highway 73 toll	south	
5	24		15	orangethorpe crossing	south	
5	24		16	orangethorpe crossing	north	
5	24		17	Irvine station	east	
5	24		18	Irvine staion	west	

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code | Reviewer | Date

Page 1 **of** 6 ***Resource Name or #:** Burlington Northern & Santa Fé Railroad (Nos. 26, 28, 30, 31, 103-109)

P1. Other Identifier: Atchison Topeka & Santa Fé Railroad

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Los Angeles **Date:** 1966 (photo revised 1981 and 1994) **T** 1S; **R** 13W; unsectioned; S.B.**B.M.**

c. Address: City: Los Angeles Zip: 90023

d. UTM: Zone: 11 ; 38657655 mE/ 3767117.33 mN (G.P.S. centerpoint)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: ~245 feet above msl

Tracks west of the Los Angeles River.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Burlington Northern & Santa Fé Railroad (BNSF) tracks are comprised of a set of 3 tracks, which run roughly north-south on the west side of the Los Angeles River. The sets of continuous welded tracks are arranged in a linear fashion, parallel to one another. This segment of tracks is contiguous at the north and south ends to additional portions of railroad track.

The tracks are not distinguishable from other steel, standard gauge, freight railroad tracks: the ballast or gravel bed has concrete or wood "sleeper" ties, laid perpendicular to the rails and set onto the bed. The rails are extruded steel, consisting of the base, web and ball or head. The rails are set atop the ties, connected by spikes (many of which are dated) and/or lagscrews. The fundamental technology of railroad tracks has changed minimally since the late 1800s. The tracks have been reconfigured form time to time, as was necessary to accommodate the railroad and their market needs. The trackbed is roughly flat (with berms at the tracks), and this segment is bordered by Mesquit Street and MetroRail/Amtrak shared trackage on the west side, Metrolink and the chanelized Los Angeles River on the east side. The 6th Street Viaduct notably runs perpendicular to the tracks, overhead.

***P3b. Resource Attributes:** (List attributes and codes) HP11 (Engineering structure); HP39 (Other-railroad)

***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View north from crossover, July 11 2007 DSCN3253.jpg

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric
☐ Both
circa 1888

***P7. Owner and Address:**
Burlington Northern Santa Fé Railway
2650 Lou Menk Drive
Fort Worth, TX 76131-2830

***P8. Recorded by:** (Name, affiliation, and address)
Francesca G. Smith and
Caprice D. (Kip) Harper
Parsons
100 W. Walnut Street, B-Pod 2nd Fl.
Pasadena, CA 91124

***P9. Date Recorded:** 07/11/07

***P10. Survey Type:** (Describe)
Intensive Survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")

Historical Resources Evaluation Report: 6th Street Viaduct Seismic Improvement Project, prepared by Francesca G. Smith, Parsons, 100 W. Walnut Street, Pasadena, CA 91124, 2007

***Attachments:** ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z (Segment only)

***Resource Name or #** (Assigned by recorder) Burlington Northern Santa Fé Railroad (Nos. 26, 28, 30, 31, 103-109)

B1. Historic Name: Southern California Railway Company/Atchison Topeka & Santa Fé Railway
B2. Common Name: Burlington Northern Santa Fé Railroad
B3. Original Use: railroad tracks B4. Present Use: railroad tracks
***B5. Architectural Style:** N/A
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Ongoing maintenance of the tracks for more than 100 years (dates unknown).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**
***B8. Related Features:**

B9a. Architect: N/A **b. Builder:**
***B10. Significance: Theme:** **Area:**
Period of Significance: **Property Type:** **Applicable Criteria:**
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This segment of railroad is part of the larger, nationwide Burlington Northern/Santa Fé (BNSF) railway system. Atchison, Topeka, and Santa Fe Railway (AT&SF) played a prominent role in the development and economic growth of Los Angeles, southern California, the west and the United States. This rail line reached Los Angeles in 1888 as the Southern California Railway Company, these routes were acquired by the AT&SF in 1905 (Marshall). The AT&SF was the one of the first continental railroad routes to serve California, and broke the Southern Pacific Railroad's monompoly on the area. Because of its capability to move goods, services and people in and out of southern California, this rail system (among others) was instrumental in the development of Los Angeles as a major commercial center. This rail system facilitated transportation of goods to local ports and this segment of tracks is a very small part of this larger, significant historical pattern which help shaped the development of the region (*FEIR/FEIS).*

Although modestly recognizable to its original appearance, the remaining railroad tracks have been reconfigured from time to time and altered by maintenance for more than 100 years. Because of these changes, this segment of tracks lacks integrity of materials, as well as workmanship. In addition, the surrounding landscape has changed over the years and the resource no longer retains integrity of setting. Because of described alterations to materials, workmanship and setting, this property is not eligible for listing in the National or California registers under Criterion C or 3 for its architecture. In addition, no evidence was discovered to warrant consideration under Criterion D/4. While the entire railroad line is likely eligible for the National and California registers, this segment no longer retains sufficient integrity to qualify for either under Criteria A/1 or B/2.

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**
FEIR/FEIS Los Angeles Union Station Run-Through Tracks Project December 2005, 3-5.16.
James Marshall, *Santa Fe, The Railroad that Built an Empire*

B13. Remarks:

***B14. Evaluator:** Francesca G. Smith

***Date of Evaluation:** 07/11/07

(Sketch Map with north arrow required.)

(This space reserved for official comments.)

State of California — The Resources Agency Primary #
DEPARTMENT OF PARKS AND RECREATION HRI #
LINEAR FEATURE RECORD
Trinomial

 Resource Name or #: (Assigned by recorder) Burlington Northern/Santa Fé Railroad (Nos. 26, 28, 30, 31, 103-109)

L1. Historic and/or Common Name: Burlington Northern/Santa Fé Railroad

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:**

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) 11S, 386559.68mE/ 3767192.40mN (northernmost point) and 11S, 386589.00mE/3767038.38mN (southernmost point)

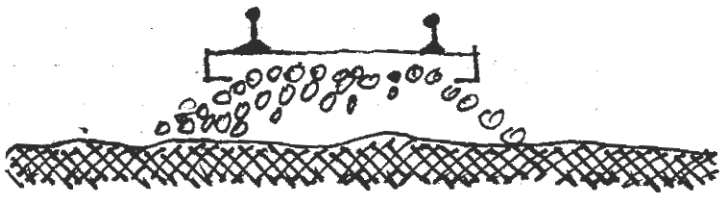
The approximately 450- foot-long segment is located on the west side of the Los Angeles River at the 6th Street Viaduct.

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.) The Atchison, Topeka & Santa Fé Railway, foundedi n 1959, was the third transcontinental railroad to reach Los Angeles in 1885. The Santa Fé lines "entered from the east and from the south along the river, meeting at [their] La Gange (location) station" (Mikesell, "LA River Bridges," 368). The Santa Fé merged with Burlington Norther Railroad in 1996, creating the Burlington Northern and Santa Fe Railway (BNSF).

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

a. Top Width: 4′- 8.5 ″ (Standard guage)
b. Bottom Width: +- 9′-0″ per track
c. Height or Depth: 5″ (track- top to bottom)
d. Length of Segment: +-450 feet

L4e. Sketch of Cross-Section (include scale) **Facing:**
sketch of section (no scale)



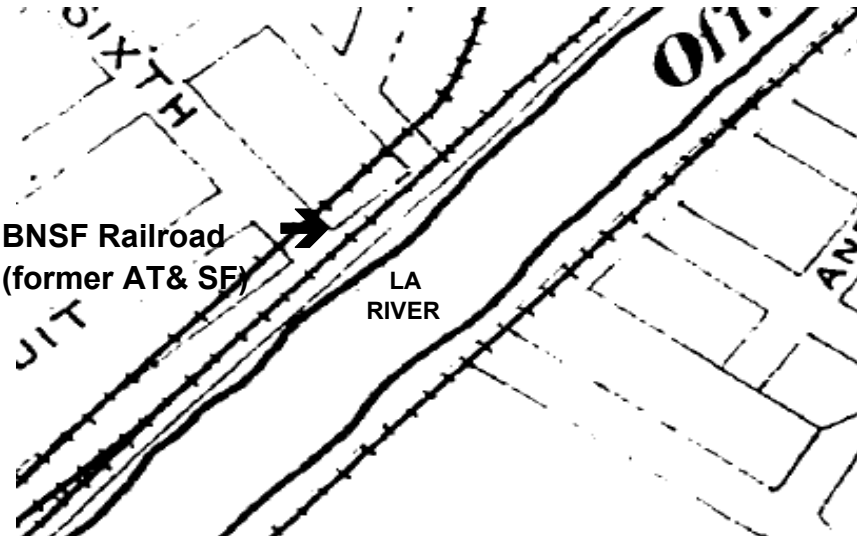
L5. Associated Resources:

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.) Located on the west side of the Los Angeles River, a channelized flood control channel. Situated beneath 6th Street Viaduct.

L7. Integrity Considerations: This segment has been subject to ongoing maintenance, the Los Angeles River has been channelized and industrial urban development has greatly altered the integrity of setting of the railroad.

L8b. Description of Photo, Map, or Drawing (View, scale, etc.)

L8a. Photograph, Map or Drawing



Annotated excerpt from *Sanborn Fire Insurance Co. Map of Los Angeles,* Volume 1, Sheet 0, 1894.

See L8

L9. Remarks:

L10. Form Prepared by: (Name, affiliation, and address)
Francesca G. Smith and
Caprice D. (Kip) Harper
Parsons
100 W. Walnut Street
Pasadena, CA 91124

L11. Date: 07/11/07

DPR 523E (1/95)

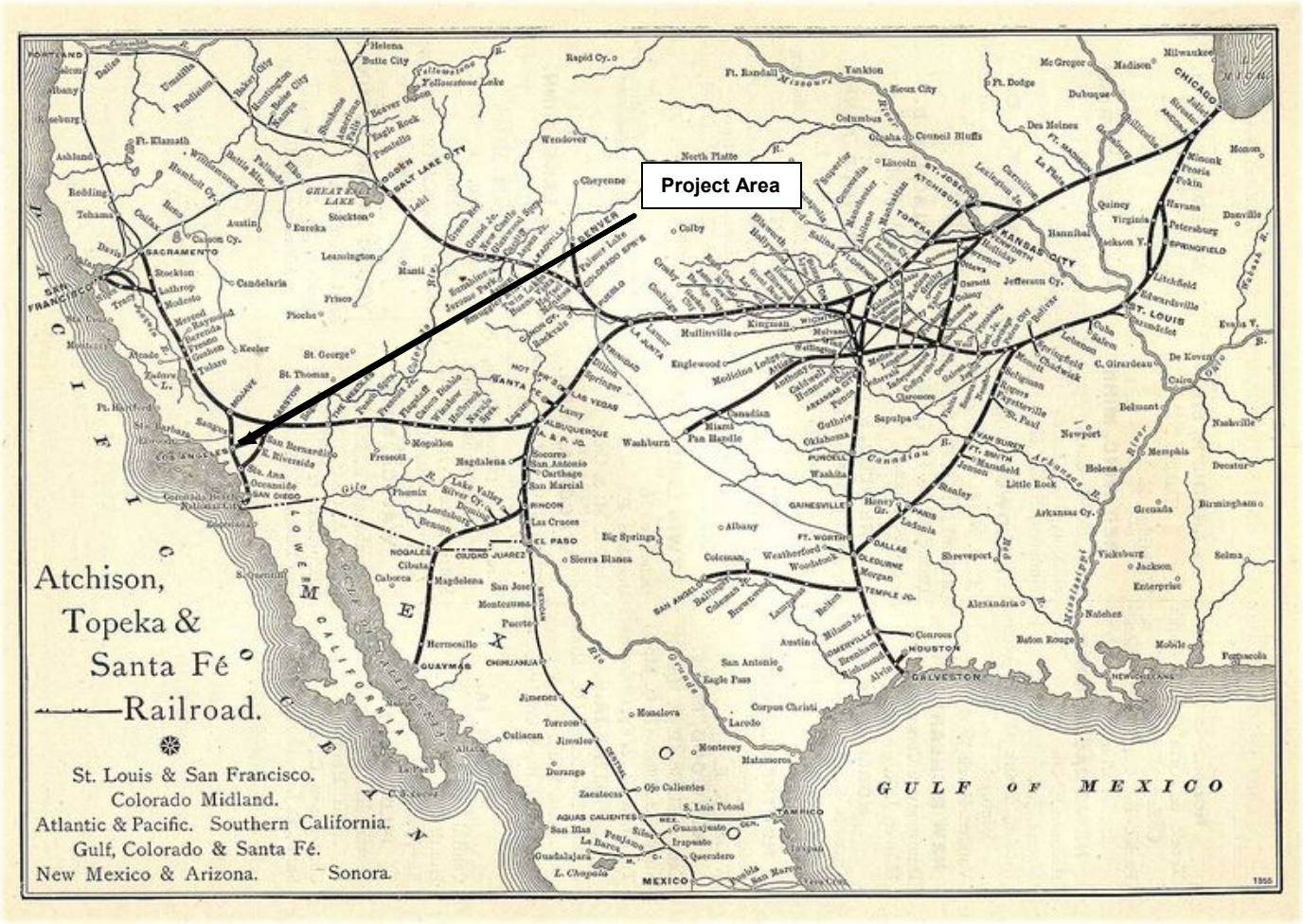
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial #

 ***Resource Name or # (Assigned by recorder)** Burlington Northern & Santa Fe Railroad (Nos. 26, 28, 30, 31, 103-109)

***Recorded by:** Francesca G. Smith and Caprice D. (Kip) Harper ***Date:** 05/24/07 ☒ Continuation ☐ Update

P5a. Drawing:



P5b. Description of Drawing: Annotated excerpt of Atchison, Topeka & Santa Fe Railroad [sic] Route from ***Grain Dealers and Shippers Gazetteer.***, depicting the entire route in 1881. General project area is noted.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI#
Trinomial #

 *Resource Name or # (Assigned by recorder) Burlington Northern & Santa Fe Railroad (Nos. 103-109)

*Recorded by: Francesca G. Smith and Caprice D. (Kip) Harper *Date: 05/24/07 ☒ Continuation ☐ Update

P5a. Drawings:

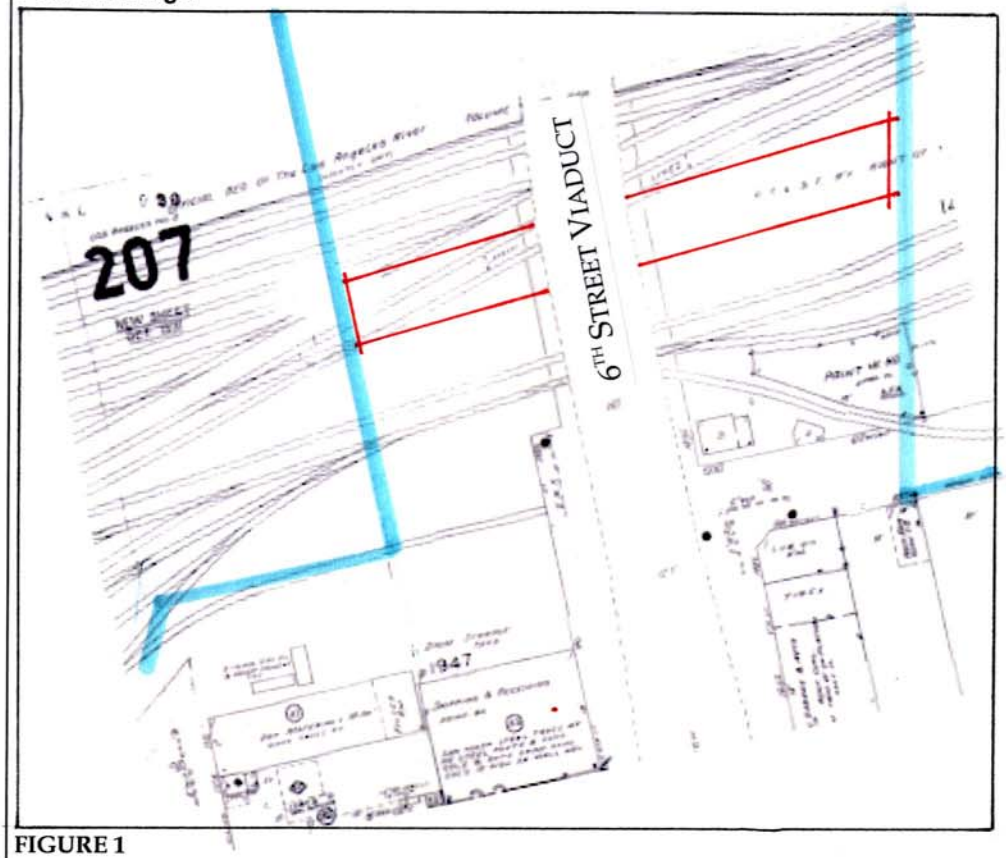
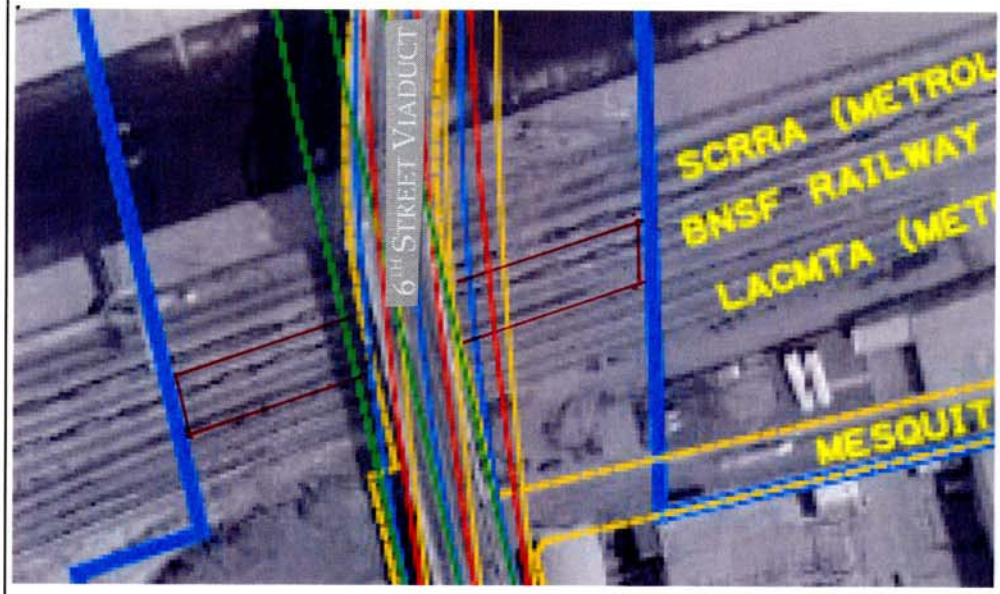


FIGURE 1



LEGEND
APE
subject property
no scale
North

FIGURE 2

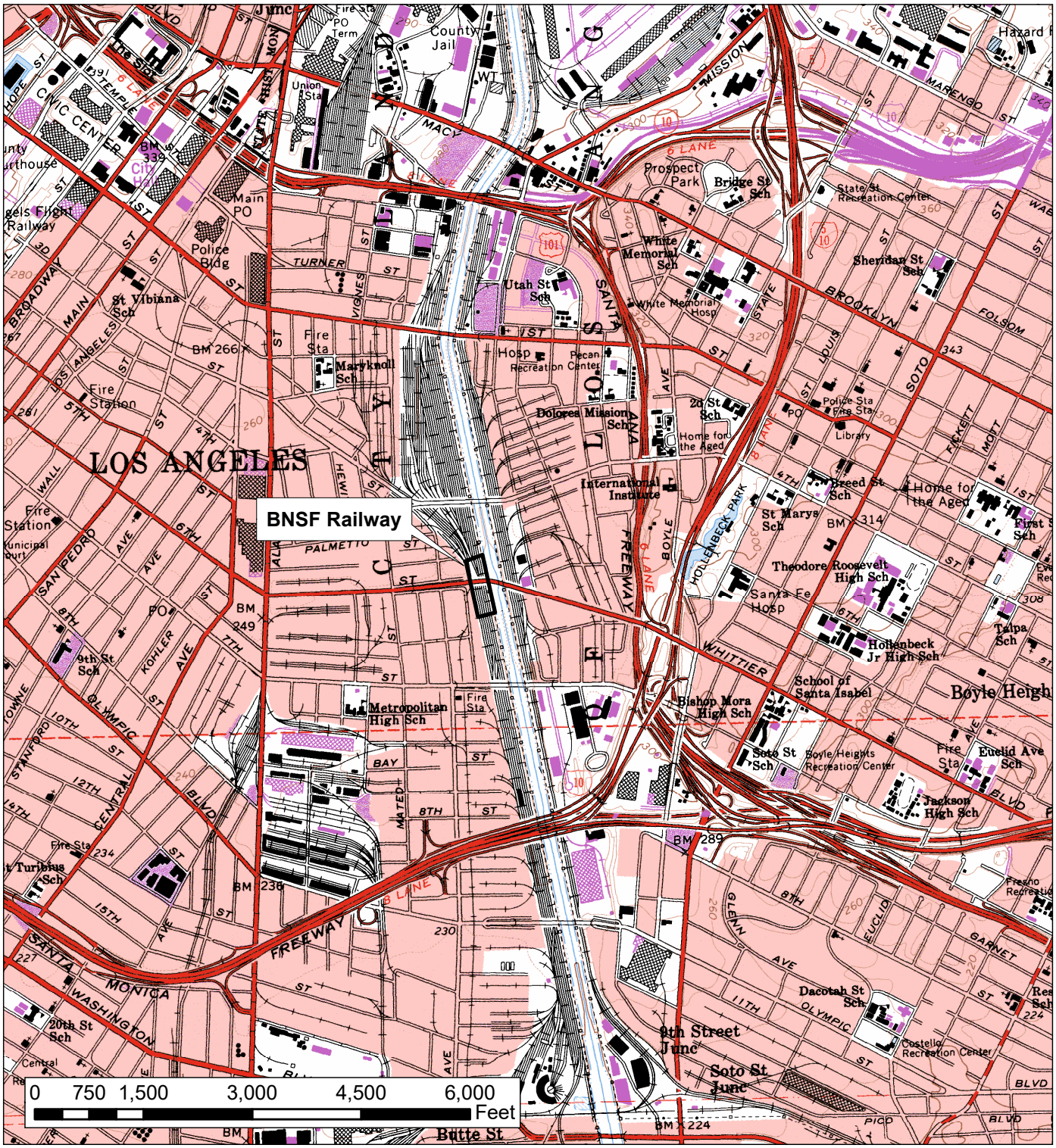
P5b. Description of Drawings: Figure 1- Excerpt from *Sanborn Fire Insurance Company Maps of Los Angeles*, 1906-1951. Volume 2, sheet 207. Figure 2- Excerpt from project Area of Potential Effects map, 2007.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #:** Burlington Northern Santa Fe Railroad

***Map Name:** USGS Los Angeles 7.5 Minute Topographic Quadrangle ***Scale:** 1:24,000 ***Date of Map:** 1966 (PR 1981; 1994)



*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P 19- 186804 Update
HRI#
Trinomial

Page 1 of 1 *Resource Name or # : Burlington Northern & Santa Fe Railroad (WSE 95)

Historic Name: Atchison Topeka & Santa Fe Railroad

Pedestrian Evaluation

Length of track UTM:
Point A (north end of segment): Zone 11; 386420 m/e; 3768179 m/N; USGS Los Angeles Quad 7.5min, 1:24,000
Point B (south end of segment): Zone 11; 386575 m/e; 3767111 m/N; USGS Los Angeles Quad 7.5min, 1:24,000

Description:

The Burlington Northern & Santa Fe Railroad (BNSF) tracks are comprised of a set of 3 tracks, which run on a north-south axis on the west side of the Los Angeles River. The sets of tracks are set parallel to each other.

Under the proposed Westside Subway Extension Project, the existing BNSF tracks that are located immediately to the east of the proposed ground-level improvements to the Division 20 rail yard will not be physically affected by project activities.

Two prior reports have been issued regarding the length of track in the proposed Westside Subway Extension Project – Division 20 Maintenance Yard APE. Parsons. 2007. *Historical Resources Evaluation Report: 6th Street Viaduct Seismic Improvement Project*, and *FEIR/FEIS Los Angeles Union Station Run-Through Tracks Project*,2005, presented the findings that although the entire Burlington Northern & Santa Fe Railroad line may be eligible for listing in the National Register of Historic Places or California Register of Historical Resource as a linear historic resource, the specific segment located in the proposed project area is not eligible for listing due to the lack of integrity as to original materials and workmanship.

There are no proposed changes/alterations/physical effects to the BNSF tracks as part of the Westside Subway Extension Project that will alter their ability to convey its historic significance as a linear resource. The specific segment located within the proposed project APE does not appear to meet the criteria or levels of integrity necessary to be considered a significant historic resource.

Status Code: 6Z

Cogstone. 2011. *Westside Subway Extension Historic Properties Supplemental Survey Report.*

*Recorded by: Pam Daly, Cogstone Resource Management *Date: July 2011 ☐ Continuation ☒ Update

P1. Other Identifier: Atchison Topeka & Santa Fe Railroad

*P2 e. Other Locational Data: Assessor Identification Number (AIN): 5163-017-806, -900, -901; 5173-019-904, -802; 5173-020-912; 5173-021-811, -813, -903, -904; 5173-022-005-, 808, -901, -902, -903; 5173-023-805, -900, -901, -902

***P3a. Description:** Approximately 0.50-mile portion of the line in the city of Los Angles just south of the First Street Bridge north to Aliso Street/US 101 Freeway. Much of the track in the CEQA Project Area for the report cited in P11 has been replaced, realigned, and the general area altered with removal of buildings, construction of buildings, and old feeder lines removed.

***P3b. Resource Attributes:** (HP39) Railroad grade

***P8. Recorded by:** Allison Hill, AECOM, 300 S. Grand Ave., Suite 200, Los Angeles, CA 90071

P5a. Photograph:



Photograph 1. Metro/BNSF/ATSF line north of First Street Bridge, view north, December 6, 2016, SAM_4562.

***P11. Report Citation:** AECOM, "Cultural Resource Assessment for the Metro Red/Purple Line Core Capacity Improvements Project, Los Angeles, California." Prepared for Los Angeles Metropolitan Transportation Authority, 2016.

***B10. Significance:**

Cogstone Resource Management previously evaluated this segment of railroad in 2011 for the *Westside Subway Extension Historic Properties Supplemental Survey Report* and found that the specific segment of track was not eligible for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) as a linear historic resource because of lack of integrity to original materials and workmanship.

Evaluation

This form does not record or evaluate the entire BNSF/ATSF, instead, it records and evaluates only the approximately 0.50-mile portion of the line in the city of Los Angles just south of the First Street Bridge north to Aliso Street/US 101 Freeway located in the CEQA Project Area for the report cited in P11 of this form. After review of the previous recordation and current field check and research, the present evaluation agrees with the previous evaluation and concludes that the segment of BNSF/ATSF trackage in the CEQA Project Area is not eligible for listing in the NRHP or CRHR, and is not a historical resource for the purposes of CEQA.

Los Angles Historic-Cultural Monuments

This evaluation also include application of the City of Los Angeles, Office of Historic Resources (OHR), Department of City Planning, Chapter 9 Department of City Planning, Article 1 Cultural Heritage Commission, Sec. 22.171.7 of the Los Angeles Administrative Code. A Historic-Cultural Monument (Monument) is any site (including significant trees or other plant life located on the site), building or structure of particular historic or cultural significance to the City of Los Angeles, including historic structures or sites in which the broad cultural, economic or social history of the nation, State or community is reflected or exemplified; or which is identified with historic personages or with important events in the main currents of national, State or

local history; or which embodies the distinguishing characteristics of an architectural type specimen, inherently valuable for a study of a period, style or method of construction; or a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

The segment of the BNSF/ATSF, does not appear to meet the criteria for listing as a LACHM. This segment of railroad does not appear to have historic significance, nor reflect or exemplify and broad cultural, political, economic, or social history of the nation, state, or community. The segment of the BNSF/ATSF is not identified with historic personages or with important events in the main currents of national, state, or local history. This segment of railroad was used by various businesses throughout the decades, and was used to transport freight goods through the Los Angeles area. This segment of BNSF/ATSF does not embody the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction and is not a notable work of a master builder, designer, or architect whose individual genius influenced his or her age. This segment of railroad has been modified over time with additional trackage, the addition of the portal in the 1980s, modern buildings added to the segment, and other changes that have altered the segment of track under study, from its period of original development.

***B14. Evaluator:** Chandra Miller, AECOM ***Date of Evaluation:** December 2016

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 19-186804 (Update)
HRI #
Trinomial
NRHP Status Code: 6Y, 6Z
Other Listings
Review Code ____ Reviewer ____ Date ____

***Resource Name or #:** Burlington Northern Santa Fe Railway **Caltrans Map Reference No.:** 28
P1. Other Identifier: BNSF, formerly Atchison, Topeka and Santa Fe (ATSF) Railway (Segment only)
***P2. Location:** ____ **Not for Publication** X **Unrestricted**
***a. County** Los Angeles **County/Route/Postmile:**
***b. USGS 7.5' Quad:** Whittier Quad **Date** 1965, rev. 1981 **T** ____ **;R** ____ **of** ____ **of Sec** ____ ; ____ **B.M.**
c. Address NA **City** Los Nietos **Zip**
d. UTM:: **Zone** 11 , 3396532 **mE/** 11808419 **mN**
***e. Other Locational Data** (APN #, etc.)
***P3a. Description:** (Briefly describe resource below)

This update form is for one segment of the Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe or ATSF) Railway, specifically a 336-foot long segment located under Interstate 605. The segment consists of three parallel tracks on an east-west axis, south of River Road in the Los Nietos vicinity. The three lines consist of tracks, wood ties, and ballast; there are two metal sheds located on the north side of the northern track, as well as at least two signals, to the east of the overhead highway span (See continuation sheet).

***P3b. Resource Attibutes:** HP39. Other
****P4. Resources Present:** ___Building x Structure ___Object ___Site ___District ___Elements of District ___Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: Looking northwest from Pioneer Blvd (ICF 3/26/2018)
***P6. Date Constructed/Age:** 1880s (CRM Tech, 2002)
x Historic ___Prehistoric ___Both
***P7. Owner and Address:**
BNSF Railway
2650 Lou Menk Drive
Fort Worth, TX

***P8. Recorded by:**
Jessica B. Feldman
ICF
555 W. Fifth Street
Suite 3100
Los Angeles, CA 90013

***P9. Date Recorded:** 3/26/2018
***P10. Type of Survey:** ___Intensive ___Reconnaissance X Other
Describe: Section 106 Compliance

***P11. Report Citation:** HRER for the I-605 Corridor Improvement Project PA/ ED, 2019
***Attachments:** ___NONE ___Map Sheet x Continuation Sheet ___Building, Structure and Object Record ___Linear Resource Record ___Archaeological Record ___District Record ___Milling Station Record

"The ATSF Railway appears to meet Criterion A for the National Register of Historic Places (NRHP) and Criterion 1 for the California Register of Historical Resources (CRHR) because it is closely associated with an important event in 19th-century California history, namely the coming of a second transcontinental railroad. This event marked the beginning of the end of the Southern Pacific Railway Company's transportation monopoly and contributed directly to the southern California land boom of the 1880s. The rail line is also associated with the emergence of southern California as a favored tourist destination (sic) in the last 19th and early 20th centuries." (Tang et al. 2008.)

This segment was part of the extension of the original ATSF main line from Los Angeles to Orange and on to San Diego. Previous evaluation of the railroad in 2008 found that the physical components, such as tracks, ballast, and signal system, have been periodically upgraded over the past century, as a result of routine maintenance or system improvements. Under Criterion A of the NRHP, the integrity of design, materials, and workmanship is not as important as the integrity of location, setting, feeling, and association to convey the significance of the resource, within the period of significance. Previous documentation and evaluation of this segment of the BNSF established the period of significance as the 1880s—when the majority of the railroad was constructed by a subsidiary of the original ATSF.

Because the tracks are part of an active railroad, survey of the segment was limited to public right of way, which occurred in March 2018. Through review of historic aerials and United States Geological Survey maps, it can be established that while the location and association of this railroad segment appear to remain intact, the segment has lost integrity of setting and feeling. When originally constructed through this part of Los Angeles County, the surrounding countryside was primarily unsettled, and surrounded by cultivated and fallow lands. By the 1950s, housing developments were beginning to pop up along both sides of the San Gabriel River; however, the construction of Interstate 605 and the extension and widening of Pioneer Boulevard to the east substantially changed the surrounding landscape, which included the growth of a commercial area on the east side of the freeway. As a result, the original character of the setting no longer resembles a rural, agricultural late 19th century landscape. Furthermore, the alteration of physical features in the immediate vicinity, in additional to the intrusion of modern railroad equipment, has diminished the integrity of feeling. Previous evaluations of other segments of this railroad (see references below) have indicated that the entire railroad line could be eligible for the NRHP and/or CRHR, as a whole, under this criterion; however, this individual segment lacks the integrity within the historic context to be eligible under NRHP Criterion A or CRHR Criterion 1.

Under NRHP Criterion D or CRHR Criterion 4, the railroad segment is not a significant or likely source of important information regarding history or prehistory. It is unlikely to yield any important data regarding original engineering or architectural designs or techniques that would help us understand the construction practices of the day. Therefore, this segment of the UPRR is not eligible for individual listing on the NRHP/CRHR under Criterion D/4.

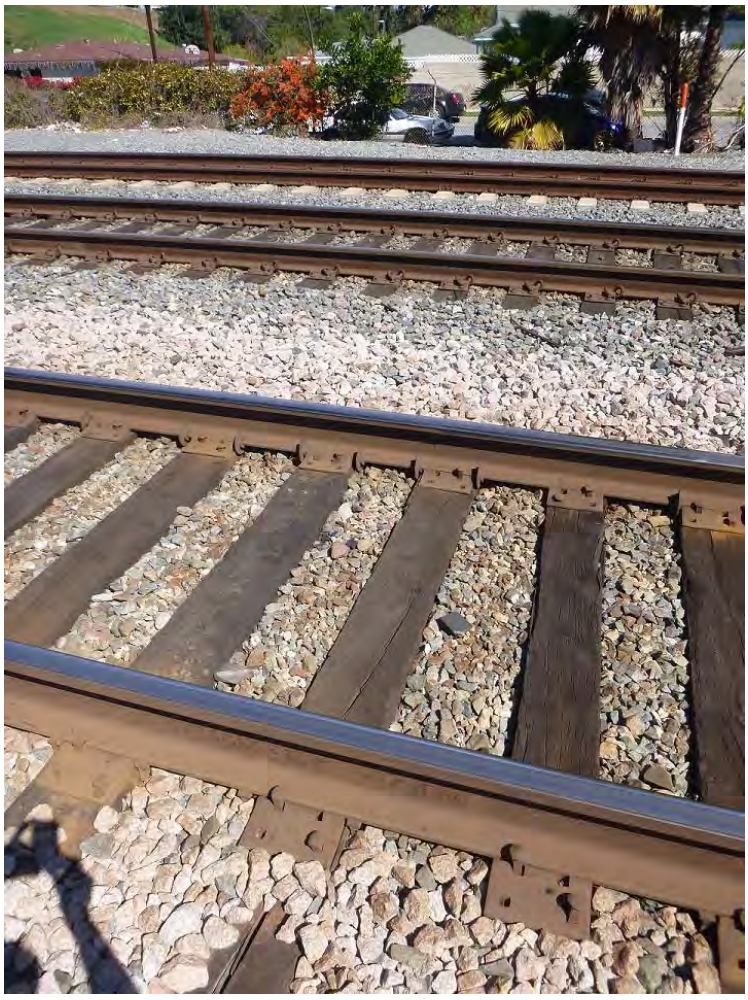
Following the review of previous evaluations, additional research, and survey of the segment, ICF concurs with the finding that although the portions of the UPRR alignment could be eligible for the NRHP or the CRHR, the subject segment does not contribute to the larger property and lacks significance for eligibility independently. The segment of the UPRR is not a historic property for the purposes of Section 106 of the National Historic Preservation Act and is not a historical resource for the purposes of the California Environmental Quality Act. The property was not evaluated for local designation.

References:

Drury, George. *The Historical Guide to North American Railroads*. Kalmbach Books: Milwaukee, WI. 1985.

Cooley, David J. *California Railroad Maps, Union Pacific/BNSF Railway*. Sonrisa Publications: Auburn, WA. 2005.

Tang, Tom "Bai" and Daniel Ballester. *Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe Railway).* California Department of Parks and Recreation Primary Record, Building, Structure and Object Record, et al. 2002 and 2008.



View of three sets of tracks, looking north. (ICF, March 18, 2018.)



View looking east along Rivera Road north of the tracks. (ICF, March 18, 2018.)



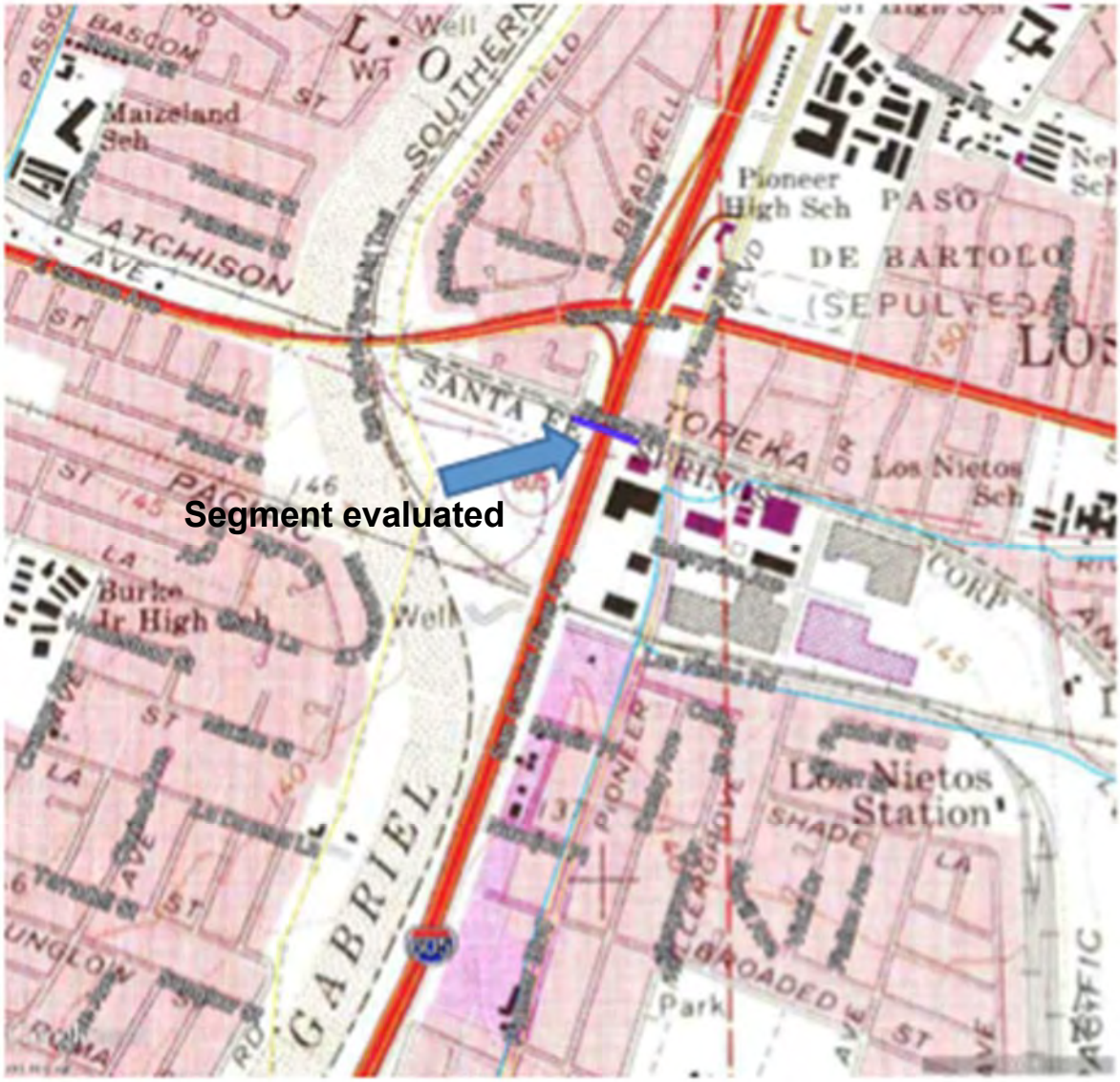
View looking west unnamed street south of the tracks. (ICF, March 18, 2018.)

Resource Identifier: Burlington Northern Santa Fe (BNSF, formerly Atchison, Topeka and Santa Fe or ATSF) Railway (Segment only)

Caltrans Map Reference No.: 28

County/Route/Postmile:

Map Name: Whittier Quad *Scale: 1:24,000 *Date of Map: 1965, rev. 1981



P3a. Description:

An update to the DPR record for Burlington Northern Santa Fe Railway (former Atchison Topeka & Santa Fe Railway) (P-19-186804) was recorded by Jessica B. Feldman, ICF, on March 26, 2018. The update was prepared as part of the Historical Resources Evaluation Report (HRER) for the I-605 Corridor Improvement Project (CIP) in Los Angeles County and documented the segment of the linear resource within the Area of Potential Effects (APE) for the project. The recommended status code for the segment was 6Y, 6Z. The HRER was subsequently reviewed by the State Historic Preservation Officer (SHPO). In a letter dated July 11, 2019, SHPO did not concur with the determination of ineligibility for the segment and recommended that the Burlington Northern Santa Fe Railway (P-19-186804) as a whole should be assumed eligible for the National Register of Historic Places for purposes of the I-605 Corridor Improvement Project only.

B12. References:

GPA Consulting and ICF International. *Historical Resources Evaluation Report for the I-605 Corridor Improvement Project*. March 2019. Prepared for Metro and Caltrans.

Polanco, Julianne. *Julianne Polanco, Office of Historic Preservation to Kelly Ewing-Toledo, Caltrans: Determinations of Eligibility for the Proposed Interstate 605 Corridor Improvement Project, Los Angeles County, CA*. Letter dated July 11, 2019.

B14. Evaluator: Jenna Kachour, GPA Consulting. Date of evaluation: (Update) July 25, 2019.

ATTACHMENT D

SUPPLEMENTAL HISTORICAL RESOURCES EVALUATION REPORT

OC LOOP SEGMENTS O, P, AND Q COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works

Prepared by:

Bai "Tom" Tang, M.A. Principal Architectural Historian
Terri Jacquemain, M.A., Historian/Architectural Historian
CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

Reviewed by:

Mary Smith

Mary K. Smith, Principal Architectural Historian
California Department of Transportation, District 8
464 W. 4th Street, San Bernardino, CA 92401

Approved by:

Alben Phung, District 12 Environmental Branch Chief
California Department of Transportation, District 12
1750 E. 4th Street, #100, Santa Ana, CA 92705

June 29, 2023
Revised June 6, 2024

Approximately 30.1 acres
T3S R11W, SBBM (Rancho Los Coyotes land grant)
USGS La Habra, Los Alamitos, and Whittier, Calif., 7.5' quadrangles

SUMMARY OF FINDINGS

This Supplemental Historical Resources Evaluation Report (SHRER) is a part of the second Supplemental Historic Properties Survey Report (SHPSR) for the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project in the Cities of Cerritos, La Mirada, and Buena Park, generally along the boundary between Los Angeles and Orange Counties, within Caltrans District 12 (Federal Aid Project No. ATPL-5955(112); see SHPSR Attachment A). Since the completion of the original HPSR for the undertaking in November 2020 and the first SHPSR in October 2021, the Orange County Department of Public Works has made further modifications to the project plans in response to technical issues encountered in the design process or raised by the Los Angeles District of the Army Corps of Engineers.

The SHPSR covers the area incorporated into the Area of Potential Effects (APE) as a result of these modifications, which include primarily relocation, reconfiguration, and/or height increase of proposed overcrossing bridges and the addition of newly defined permanent and temporary easements, along with secondary project activities such as removal and replacement of street trees and relocation of an advertising billboard. Furthermore, the vertical extent of the APE has been increased both aboveground and below the surface to accommodate current design for the bridges, bridge piles, and associated geotechnical borings.

Besides the various portions of the Coyote Creek (East Fork) Channel involved in these project components, the supplemental APE covered by this survey also includes additional right-of-way and easements to be obtained from adjacent properties, the balance of two vacant parcels on which the reoriented bridges will be constructed, and the balance of two commercial properties where extensive easements will be required on all sides of the existing buildings. In addition, the height increase of another bridge caused five single-family residential properties to be incorporated into the APE due to the potential for visual, atmospheric, and/or other indirect effects. The additional APE measures approximately 30.1 acres in total, of which 29.5 acres will be subject to direct, physical effects.

The purpose of this SHRER is to determine whether any of the seven buildings now included in the APE constitutes a "historic property," as defined by 36 CFR 800.16(l). It is prepared in compliance with Section 106 of the National Historic Preservation Act, as implemented through federal regulations outlined in 36 CFR 800, and in accordance with the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA). The scope of the study included a review of pertinent data gathered for the original HPSR and the first supplement, additional archival research, further consultation with local community representatives, and a field inspection of the buildings on April 6, 2023.

The results of these research procedures indicate that four of the five residences and one of the two warehouses in the additional APE date to the 1970-1972 era while the other two buildings are modern in origin, dating only to 1999-2006. As late-historic period features that retain sufficient historical character to relate to their period of origin, the five buildings from the 1970s were recorded into the California Historical Resources Inventory during this survey. Each was

subsequently evaluated against the criteria for listing in the National Register of Historic Places, and none of them appear eligible. As such, they do not meet the definition of "historic properties" The five evaluated buildings are listed below:

Parcel No.	*Address/Location*	*Community*	*OHP Status Code*	*MRN**
7022-022-003	17814 Vierra Avenue	Cerritos	6Z	1
7022-022-004	17818 Vierra Avenue	Cerritos	6Z	2
7022-022-005	17824 Vierra Avenue	Cerritos	6Z	3
7022-022-006	17830 Vierra Avenue	Cerritos	6Z	4
7022-023-022	16741 Fabrica Way	Cerritos	6Z	5

* Map Reference Number; see SHPSR Attachment A, Map 3, Sheet 1.

The only other potential "historic properties" identified as lying within or partially within the APE were three linear features of historical origin that were discussed in the 2020 HPSR and the 2021 supplement, namely the former Southern Pacific Railroad system (19-186110/30-176630), the former Atchison, Topeka and Santa Fe Railway system (19-186804/30-176663), and the Coyote Creek (East Fork) Channel (primary number pending). All three of them have been assumed to be "historic properties" for the purpose of this project with the understanding that the project will not have an adverse effect on any of them (see SHPSR Attachment B, Parts 2-4, and Attachment F). Bai "Tom" Tang, who meets the Professionally Qualified Staff Standards in Section 106 PA Attachment 1 as a Principal Architectural Historian, has determined that all other properties present within the APE, including the two buildings from the 1999-2006 era, meet the criteria for exemption from evaluation, as outlined in Section 106 PA Attachment 4.

TABLE OF CONTENTS

SUMMARY OF FINDINGS i
PROJECT DESCRIPTION 1
RESEARCH METHODS 3
Historical/Archaeological Resources Records Search 3
Historical Background Research 3
Consultation with Local Community 4
Field Inspection 4
HISTORICAL OVERVIEW 4
Regional Overview 4
The APE and Vicinity 5
DESCRIPTION OF CULTURAL RESOURCES 5
FINDINGS AND CONCLUSIONS 6
List of Findings 6
Conclusion 7
REFERENCES 8
APPENDIX 1: PERSONNEL QUALIFICATIONS 9
APPENDIX 2: DPR 523 FORMS 12

LIST OF FIGURES

Figure 1. Modern buildings in the APE 6

PROJECT DESCRIPTION

This Supplemental Historical Resources Evaluation Report (SHRER) is a part of the second Supplemental Historic Properties Survey Report (SHPSR) for the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project in the Cities of Cerritos, La Mirada, and Buena Park, generally along the boundary between Los Angeles and Orange Counties, within Caltrans District 12 (Federal Aid Project No. ATPL-5955(112); see SHPSR Attachment A). Since the completion of the original HPSR for the undertaking in November 2020 and the first SHPSR in October 2021, the Orange County Department of Public Works has made further modifications to the project plans in response to technical issues encountered in the design process or raised by the Los Angeles District of the U.S. Army Corps of Engineers. These modifications include the following components:

- Relocating the Coyote Creek Channel overcrossing in the City of Cerritos to a new site approximately 25 feet further to the south, increasing the height of the bridge from six feet to 12 feet, and adding a nine-foot-tall privacy wall along the boundary of five adjacent single-family residential properties near the western end of the bridge (Parcel Nos. 7022-022-003 to 7022-022-007; see SHPSR Attachment A, Map 3, Sheet 1).
- Reorienting the southern approach to the bridge over the Union Pacific Railroad (UPRR) in the City of La Mirada from its original course parallel to the bikeway to a new course perpendicular to the latter, extending further into an adjacent vacant property under Caltrans ownership (Parcel No. 7003-009-909; see SHPSR Attachment A, Map 3, Sheet 7).
- Reconfiguration of the southern approach to the bridge over the Burlington Northern Santa Fe (BNSF) Railway mainline and Stage Road near the boundary between the Cities of Buena Park and La Mirada into a loop over an adjacent vacant property owned by the Los Angeles County Flood Control District (Parcel No. 066-581-05; see SHPSR Attachment A, Map 3, Sheet 11).
- Construction/improvement of short segments of maintenance road along the Coyote Creek Channel, within the existing channel right-of-way (see SHPSR Attachment A, Map 3, Sheets 6-9, 11, and 12).
- Moving an existing advertising billboard on Parcel No. 7003-009-909 to a different location on the same property, approximately 700 feet to the northwest (see Attachment A, Map 3, Sheet 7).
- Removal and replacement of trees along La Mirada Boulevard in the City of Buena Park, as well as other minor streetscape modifications in that area, such as relocation of utility cabinets and installation of a fence in the median (see SHPSR Attachment A, Map 3, Sheet 14).
- Geotechnical boring to be conducted at various locations along the project route.
- Acquisition of additional right-of-way and easements, including temporary construction easements, permanent maintenance easements, permanent sidewalk easements, permanent aerial easements, and permanent underground easements, from adjacent properties throughout the length of the project alignment to accommodate the new or modified project elements outlined above.
- Identification of five logistic access points at or near the intersections of the Coyote Creek (East Fork) Channel with Valley View Street, Artesia Boulevard, Knott Avenue, Stage Road, and La Mirada Boulevard, where construction equipment and materials will be loaded by cranes onto flatbed cargo trucks positioned on the channel bottom.

The SHPSR covers the area incorporated into the Area of Potential Effects (APE) as a result of these modifications, which encompasses the maximum extent of additional ground disturbance required, both horizontally and vertically, as well as adjacent properties where existing buildings may receive

visual, atmospheric, or other effects as a result of the new or modified project elements. The geographic scope of the current supplemental survey consists of the following additions to the APE:

- Additional areas along the proposed bikeway alignment, within the Coyote Creek (East Fork) Channel or the rights-of-way of intersecting public roadways, that will be included in the increased project footprint as a result of the design modifications (see SHPSR Attachment A, Map 3, Sheets 1-14).
- Additional right-of-way and easements to be obtained from the following adjacent properties: Parcel Nos. 7001-014-034, 7001-015-017, 7001-020-039, 7003-009-909, 7003-011-036, and 7022-023-022 in Los Angeles County; Parcel Nos. 066-010-30, 066-010-48, 066-010-53, 066-581-05, 066-582-03, 066-584-04, 066-584-09, and 276-031-05 in Orange County (see SHPSR Attachment A, Map 3, Sheets 1, 2, and 3-14).
- The remainders of two commercial properties where extensive easements will be required on all sides of the existing buildings, namely Parcel Nos. 7001-020-039 in La Mirada and 7022-023-022 in Cerritos (see SHPSR Attachment A, Map 3, Sheets 1 and 11).
- Remaining portions of the two vacant properties that contain the reconfigured approaches to the UPRR and BNSF overcrossings, specifically Parcel No. 7003-009-909 in La Mirada in its entirety and the portion of Parcel No. 066-581-05 in Buena Park lying outside the existing channel right-of-way (see SHPSR Attachment A, Map 3, Sheets 7 and 11).
- The five residential properties near the western end of the channel overcrossing in Cerritos, namely Parcel Nos. 7022-022-003 to 7022-022-007, where the increased bridge height and the addition of the privacy wall would increase the potential for indirect effects on the buildings (see SHPSR Attachment A, Map 3, Sheet 1).

Collectively, the additional APE measures approximately 30.1 acres in total, of which 29.5 acres will be subject to potential ground disturbance during the undertaking. The vertical extent of the APE has been increased to a maximum depth of 120 feet to accommodate the current design for geotechnical borings and bridge piles. The height of the APE is now 39 feet to accommodate the planned railroad overcrossings. The newly identified logistic access points are confined within the geographic limits of the existing APE, and all activities there will be carried out using existing infrastructure. Therefore, the access points do not alter the horizontal or vertical extent of the APE.

As indicated above, seven of the adjacent parcels added to the APE are occupied by existing buildings:

- Parcel No. 7022-022-003 (17814 Vierra Avenue, Cerritos).
- Parcel No. 7022-022-004 (17818 Vierra Avenue, Cerritos).
- Parcel No. 7022-022-005 (17824 Vierra Avenue, Cerritos).
- Parcel No. 7022-022-006 (17830 Vierra Avenue, Cerritos).
- Parcel No. 7022-022-007 (17834 Vierra Avenue, Cerritos).
- Parcel No. 7022-023-022 (17641 Fabrica Way, Cerritos).
- Parcel No. 7001-020-039 (15250 Desman Road, La Mirada).

These properties are situated in a fully urbanized setting on the western and eastern edges of a commercial/industrial district surrounded by densely populated suburban residential neighborhoods (see SHPSR Attachment A, Map 3, Sheets 1 and 11). The purpose of this SHRER is to determine whether any of the buildings on these properties constitutes a "historic property," as defined by 36

CFR 800.16(l). It is prepared in compliance with Section 106 of the National Historic Preservation Act, as implemented through federal regulations outlined in 36 CFR 800, and in accordance with the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA).

RESEARCH METHODS

HISTORICAL/ARCHAEOLOGICAL RESOURCES RECORDS SEARCH

The historical/archaeological resources records search for this undertaking was conducted for the original HPSR on February18, 2020, at the South Central Coastal Information Center (SCCIC), California State University, Fullerton (see SHPSR Attachment B, Part 1). A review of the records search results indicates that none of the seven properties that are the focus of this SHRER have been previously recorded or evaluated for historical significance, nor were these properties included in any past cultural resources studies.

The records search results identify no additional cultural resources within or adjacent to the boundaries of the additional APE. The only potential "historic properties" identified in the overall APE prior to this supplemental survey remain the three linear features discussed in the 2020 HPSR and the 2021 supplement, namely the former Southern Pacific Railroad (SPRR; now UPRR) system (19-186110/30-176630), the former Atchison, Topeka and Santa Fe Railway (ATSF; now BNSF) system (19-186804/30-176663), and the Coyote Creek (East Fork) Channel (primary number pending; see SHPSR Attachment B, Parts 1, 5).

Pursuant to Stipulation VIII.C.4 of the Section 106 PA, in 2021 the SPRR and the ATSF were presumed eligible for listing in the National Register of Historic Places for the purposes of this undertaking because of the limited potential for effects (see SHPSR Attachment B, Parts 2-4). The proposed modifications to the project plans will not alter the nature and extent of the undertaking's impacts on these two linear features and, therefore, the existing conclusions remain valid. During the present study, the Coyote Creek (East Fork) Channel was also presumed eligible for the National Register for the purposes of this undertaking with Caltrans CSO approval (see SHPSR Attachment F).

HISTORICAL BACKGROUND RESEARCH

Focused historical research on the seven buildings incorporated into the APE was conducted by Historian/Architectural Historian Terri Jacquemain (see App. 1 for qualifications) to ascertain their construction dates, ownership history, and possible associations with important historic figures or events. Sources consulted during the research included published literature in local and regional history, U.S. Geological Survey topographic maps dated 1896-1981, aerial and satellite photographs taken between 1953 and 2021, real property information database of the County of Los Angeles, property character and history reports provided by Nite Owl Pro, and various online genealogical databases available at Ancestry.com. Findings from these sources are incorporated into the historical overview presented in the following section.

CONSULTATION WITH LOCAL COMMUNITY

Mike O'Grady, Environmental Services Manager with the City of Cerritos Community Development Department, was contacted by electronic mail and telephone between April 17 and May 9, 2023, and the Orange County Historical Society/Heritage Museum was contacted by electronic mail and by telephone between April 19 and May 8, 2023 (see SHPSR Attachment D). As of this time, no comments have been received from either the city or the historical society.

FIELD INSPECTION

On April 6, 2023, Stephen O'Neil, Principal Investigator of Prehistoric and Historic Archaeology (see App. 1 for qualifications), carried out a pedestrian field survey of the additional APE, including a field inspection of the seven buildings listed above. In order to facilitate the proper recordation and historic integrity assessment of the buildings that proved to be historical in age (i.e., more than 50 years old), O'Neil made detailed notations and preliminary photographic documentation of their structural/architectural characteristics and current conditions. The field data were then compiled by Terri Jacquemain into Standard DPR 523 forms for submittal to the California Historical Resources Information System (see App. 2).

HISTORICAL OVERVIEW

REGIONAL OVERVIEW

Buena Park was founded in 1887 on 690 acres that James A. Whitaker, a wholesale grocer from Chicago, had purchased from the Stearns Ranchos in 1885 (Visit Buena Park n.d.). Meanwhile, what is now Cerritos became closely tied to the settlement of Artesia, which was founded by the Los Angeles Immigration and Land Cooperative in 1875 on 500 acres of former Stearns Ranchos land (Cenovich 1995). Throughout the late 19th and early 20th centuries, southeastern Los Angeles County and northwestern Orange County remained rural, with the cultivation of citrus fruits, walnut, and avocado being the leading "industry" after earlier attempts at growing corn, hay, and vineyards proved unsuccessful (ATSF 1983:226). Buena Park and Cerritos became known for dairy farming, while La Mirada was best known for the Windermere Ranch's lemons, grapefruit, and oranges, and olive oil (Cenovich 1995; City of La Mirada n.d.; Discover La Mirada n.d.; Visit Buena Park n.d.).

Orange County split from Los Angeles County in 1889, with Coyote Creek forming the conceptual boundary between the two (Armor 1921). During the 1920s-1940s, while Cerritos and La Mirada continued to be dominated by agriculture, Buena Park embarked on a more colorful path to fame and distinction through Knott's Berry Farm, which by the late 1940s had become a major tourist attraction (Knott's Berry Farm 2020). The post-WWII boom brought a dramatic departure from previous development patterns as stretches of farmland along the Los Angeles-Orange county line became a prime target for developers. Soon, the development of suburban housing tracts and associated shopping centers became the driving force in regional growth. In response to the rapid urbanization, the once agrarian communities incorporated one by one during the mid-20th century, Buena Park in 1953, Cerritos in 1956, and La Mirada in 1960.

THE APE AND VICINITY

In 1970, the suburban population in the U.S. eclipsed the number of city dwellers, capping the 20-year post-WWII boom that saw California's population increase by 88% (Hope 2011:15). A relative latecomer to the boom, Cerritos underwent a remarkable acceleration in the transition from its former dairy farming and agricultural roots to a fully suburban character during the mid- and late 1960s (Cenovich 1995). This growth spurt was largely a result of City of Cerritos re-zoning the former dairy land from agricultural to residential in 1965, after county reappraisals doubled the community's property taxes (*ibid.*).

Meanwhile, in 1966-1967 the U.S. Army Corps of Engineers undertook a major upgrading of the Coyote Creek flood control system, and the concrete-lined channel in the APE resulted from that project (NETR Online 1963; 1972; USACE 1966-1967; 2017). With the flood threat abated, development in Cerritos and near the APE began in earnest, featuring primarily residential tracts to the west of North Fork of Coyote Creek and commercial/industrial warehouses along the East Fork (NETR Online 1963; 1972). Near the northeastern end of the APE, the mid-20th century urban growth was again dominated by residential development in La Mirada and Buena Park (*ibid.*).

By 1968, 31 housing tracts were completed or underway in the City of Cerritos (Cenovich 1995). Among them was Tract No. 25698, in which the five residential properties in the additional APE are located (County Assessor n.d.). Archival records indicate that three of the five residences in the APE, located at 17814, 17818, and 17824 Vierra Avenue, were constructed in 1970, and a fourth, at 17830 Vierra Avenue, was completed between 1970 and 1972 (County Assessor n.d.). The southernmost of the five residences, at 17834 Vierra Avenue, is modern in age, evidently a replacement built in 2005-2006 after the original home was demolished or destroyed (*ibid.*; Google Earth 2005; 2006).

Across the Coyote Creek Channel from Tract No. 25698, the warehouse at 17641 Fabrica Way also dates to the early 1970s, specifically 1972 (County Assessor n.d.). The other warehouse in the additional APE, at 15250 Desman Road in La Mirada, is a modern building constructed in 1999 (*ibid.*).

DESCRIPTION OF CULTURAL RESOURCES

The five 1970-1972 buildings near the southwestern end of the project route are the only potential "historic properties" identified within the additional APE during this study. All of these buildings are characteristic of the typical design and construction practice in southern California during the 1950s-1970s era. Two of the four residences demonstrate the "sweeping roof" style that had come into vogue by then, while the other two adhere to the more ubiquitous Ranch style with cross-gable roofs and prominent two-car garage extensions. The warehouse is a tall one-story building of concrete tilt-up "box" construction, surmounted by a flat-topped "modern mansard" roof and nearly completely blind on the exterior walls. Detailed descriptions, construction histories, and evaluations of these buildings are presented in the DPR forms attached in Appendix 2.

The other two buildings in the APE, the residence at 17834 Vierra Avenue and the warehouse at 15250 Desman Road, are less than 30 years of age, and neither of them exhibits any outstanding qualities in architecture or aesthetics (Fig. 1). Therefore, these two buildings meet the criteria for



Figure 1. Modern buildings in the APE. *Left*: residence at 17834 Vierra Avenue, Cerritos, built in 2005-2006; *right*: warehouse at 15250 Desman Road, La Mirada, built in 1999. (Photographs taken on April 6, 2023)

exemption from evaluation, as outlined in Section 106 PA Attachment 4 (Property Type 2). The advertising billboard to be relocated during the undertaking was reportedly installed in 1959. As a minor, ubiquitous roadside infrastructure feature of standard design and configuration, it also meets the criteria for exemption from evaluation (Property Type 1).

The neighborhood in which the five residences in the additional APE are located, Tract No. 25698, was developed in the early 1970s, as noted above, and is barely historical in age. The neighborhood and the homes in it are typical of the numerous other suburban residential tracts of similar ages in southern California and demonstrate no remarkable qualities in design and construction. As such, the neighborhood shows no particular potential to be considered a historic district, especially since its integrity has been compromised to some extent by widespread alteration to the homes and by modern infilling developments, such as the residence at 17834 Vierra Avenue.

Besides these built-environment features, the current survey noted a defunct Chevron Corporation pipeline of unknown age along the south side of the BNSF Railway. Because a newly identified temporary construction easement coincides with a portion of its right-of-way, an approximately 250-foot segment of the pipeline is now included in the boundaries of the APE. However, the proposed undertaking has little potential to affect the current conditions of the pipeline as it lies underground beneath the easement before emerging aboveground to pass overhead across the bikeway route and the Coyote Creek (East Fork) Channel. Given the vertical differentiation from the proposed project activities, the pipeline will not receive any physical impact from the undertaking. Furthermore, as an infrastructure feature of utilitarian character the pipeline is not subject to visual, atmospheric, or other indirect effects. Therefore, the pipeline is excluded from the vertical extent of the APE.

FINDINGS AND CONCLUSIONS

LIST OF FINDINGS

- Historic properties listed in the NRHP: None.

- Historic properties previously determined eligible for the NRHP: None.

- Properties previously assumed eligible for the NRHP for the purposes of this project only because of limited potential for effects (see SHPSR Attachment B, Parts 2-4):

Primary No.	*Name*	*Location*	*Community*	*Status Code*
19-186110/ 30-176630	SPRR (now UPRR)	Between Firestone Blvd. and Artesia Blvd.	La Mirada	3S
19-186804/ 30-176663	ATSF (now BNSF)	Near Stage Rd.; near Knott Ave.	Buena Park	3S
Pending	Coyote Creek (East Fork) Channel	Throughout the APE	Various	3S

- Historic properties determined eligible for the NRHP as a result of the current study: None.

- Resources determined *not* eligible for the NRHP as a result of the current study:

Parcel No.	*Address/Location*	*Community*	*Status Code*	*MRN**
7022-022-003	17814 Vierra Ave.	Cerritos	6Z	1
7022-022-004	17818 Vierra Ave.	Cerritos	6Z	2
7022-022-005	17824 Vierra Ave.	Cerritos	6Z	3
7022-022-006	17830 Vierra Ave.	Cerritos	6Z	4
7022-023-022	16741 Fabrica Way	Cerritos	6Z	5

* Map Reference Number; see Supplement HPSR Attachment A, Map 3, Sheet 1.

- Properties for which further study is needed: None.

CONCLUSION

In summary, among the seven buildings in the additional APE, four residential properties and one commercial property were found to be of late historical origin and subsequently recorded into the California Historical Resources Inventory. These five properties were evaluated against the criteria for listing in the NRHP, and none of them appears to be eligible. Therefore, they do not meet the definition of "historic properties."

All three of the linear features of historical origin in the APE have been assumed to qualify as "historic properties" for the purpose of this project with the understanding that the project will not have an adverse effect on any of them (see SHPSR Attachment B, Parts 2-4, and Attachment F). Bai "Tom" Tang, who meets the Professionally Qualified Staff Standards in Section 106 PA Attachment 1 as a Principal Architectural Historian, has determined that all other properties present within the APE meet the criteria for exemption from evaluation, as outlined in Section 106 PA Attachment 4.

REFERENCES

Armor, Samuel
1921 *History of Orange County, California: with Biographical Sketches of the Leading Men and Women of the County Who Have Been Identified with its Earliest Growth and Development from the Early Days to the Present*; Part 1. Historic Record Company, Los Angeles.

ATSF (Atchison, Topeka, and Santa Fe Railway Company)
1983 *History of the Santa Fe Coastlines*. Atchison, Topeka, and Santa Fe Railway Company, Chicago, Illinois.

Cenovich, Marilyn
1995 *The Story of Cerritos: A History in Progress*. http://menu.ci.cerritos.ca.us/collections/local_history/cl_lhStory.htm.

City of La Mirada
n.d. History of La Mirada. https://www.cityoflamirada.org/about-us/history.

County Assessor, Los Angeles
n.d. Property Assessment Information System. https://maps.assessor.lacounty.gov/m/.

Discover La Mirada
n.d. La Mirada Historical Timeline. http://www.discoverlamirada.com/history/.

Google Earth
2005-2006 Aerial/satellite photographs of the project vicinity. Available through the Google Earth software.

Hope, Andrew
2011 *Tract Housing in California, 1945-1973: Context for National Register Evaluation*. California Department of Transportation, Sacramento. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/tract-housing-in-ca-1945-1973-a11y.pdf.

Knott's Berry Farm
2020 The History of Knott's Berry Farm. https://www.knotts.com/blog/2020/april/the-history-of-knotts-berry-farm.

NETR (Nationwide Environmental Title Research) Online
1963-1972 Aerial/satellite photographs of the project vicinity. http://www.historicaerials.com.

USACE (United States Army Corps of Engineers)
1966-1967 Los Angeles Drainage Area, Coyote Creek Channels: Coyote Creek Channel Upstream from North Fork (as-built plans). Digital copies provided by U.S. Army Corps of Engineers, Los Angeles District.
2017 Periodic Inspection Report No. 2, Generalized Executive Summary: Coyote Creek 3 Levee System, Los Angeles County and Orange County, California (NLD System ID #3805010025). https://www.spl.usace.army.mil/Portals/17/docs/LeveeSafetyProgram/Coyote_Creek_3_Levee_System_PI_Report_No_2_ES_M_20180319.pdf.

Visit Buena Park
2020 History of Buena Park, California. https://www.visitbuenapark.com/p/tools/about-us/history-of-buena-park/history.

APPENDIX 1
PERSONNEL QUALIFICATIONS

PRINCIPAL ARCHITECTURAL HISTORIAN
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, University of California, Riverside.
1987	M.A., American History, Yale University, New Haven, Connecticut.
1982	B.A., History, Northwestern University, Xi'an, China.
2000	"Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994	"Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002	Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997	Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993	Project Historian, Archaeological Research Unit, University of California, Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, University of California, Riverside.
1988-1993	Research Assistant, American Social History, University of California, Riverside.
1985-1988	Research Assistant, Modern Chinese History, Yale University.
1985-1986	Teaching Assistant, Modern Chinese History, Yale University.
1982-1985	Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

HISTORIAN/ARCHITECTURAL HISTORIAN
Terri Jacquemain, M.A.

Education

2004	M.A., Public History and Historic Resource Management, University of California, Riverside.
2002	B.S., Anthropology, University of California, Riverside.
2001	Archaeological Field School, University of California, Riverside.
1991	A.A., Riverside Community College, Norco Campus.

Professional Experience

2003-	Project Historian/Architectural Historian, CRM TECH, Riverside/Colton, California.
2002-2003	Teaching Assistant, Religious Studies Department, University of California, Riverside.
2002	Interim Public Information Officer, Cabazon Band of Mission Indians.
2000	Administrative Assistant, Native American Student Programs, University of California, Riverside.
1997-2000	Reporter, *Inland Valley Daily Bulletin*, Ontario, California.
1991-1997	Reporter, *The Press-Enterprise*, Riverside, California.

Membership

California Preservation Foundation.

PRINCIPAL INVESTIGATOR, PREHISTORIC AND HISTORIC ARCHAEOLOGY
Stephen O'Neil, M.A., RPA (Registered Professional Archaeologist)

Education

2002 M.A., Anthropology, California State University, Fullerton.
1979 B.S., Anthropology, California State University, Long Beach.

Professional Experience

2010- Cultural Resources Manager, UltraSystems Environmental, Irvine, California.

2015 Cultural Resource Field Director, U.S. Interior Department, Bureau of Land Management.
2014 Contractor, Safety Orientation, Burlington Northern and Santa Fe Railroad.

Professional Affiliations

- Past President, Pacific Coast Archaeological Society.
- Board member, Orange County Natural History Museum.

Research Interests/Areas of Expertise

Cultural Resource Management, Ethnography, Native American Culture, Cultural Diversity, Southern California Archaeology, Phase I/II Historical/Archaeological Studies, CEQA and NEPA regulatory compliance, and AB 52 Native American Tribal Consultation.

Cultural Resources Management Reports

Author/co-author to manifold cultural resources study reports since 1980, spanning more than four decades of regulatory development in environmental quality compliance and the management of cultural resources.

Membership

Society for California Archaeology.

APPENDIX 2

DPR 523 FORMS

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # (Pending)
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code **Reviewer** **Date**

Page 1 **of** 4 ***Resource Name or #** (Assigned by recorder) MRN 1

P1. Other Identifier: 17814 Vierra Avenue

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Los Alamitos **Date** 1981
T3S; **R**11W; NE **1/4 of Sec** 33 ; S.B. **B.M.** (within the Los Coyotes land grant)

c. Address 17814 Vierra Avenue **City** Cerritos **Zip** 90703

d. UTM: (Give more than one for large and/or linear resources) **Zone** 11 ; 404,396 **mE**/ 3,748,144 **mN**
UTM Derivation: ☐ USGS Quad ☐ GIS ☒ Google Earth

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate) Assessor's Identification Number 7022-022-003; on the eastern side of Vierra Avenue between Ashworth Street and Rose Street

***P3a Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This wood-framed, single-story, rectangular building rests on a concrete slab foundation, with exterior walls coated in smooth-textured tan stucco. The entire width of the house is surmounted by a low-pitch front-gable roof, with a matching secondary gable over the garage and an arched entryway and exposed ridge boards under the gable peaks. The roof is covered by dark composite shingles and ends in wide eaves with exposed rafters and fascia boards. Fenestration includes a vertically divided, aluminum-framed sliding window adjacent to the front entry. The primary façade features battered extension walls on both sides. The garage door is of fiberglass/steel with fanlights.

***P3b. Resource Attributes:** (List attributes and codes) HP2: Single-family property

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo (view, date, accession number): April 6, 2023; view to the east

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
1970

***P7. Owner and Address:** Shin Family Trust (same address)

***P8. Recorded by** (Name, affiliation, & address): Terri Jacquemain, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324, and Stephen O'Neil, UltraSystems Environmental, 16431 Scientific Way, Irvine, CA 92618

***P9. Date Recorded:** April 6, 2023

***P10. Survey Type** (describe): Intensive-level survey for Section 106 compliance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang and Terri Jacquemain (2023): Supplemental Historical Resources Evaluation Report: OC Loop Segments O, P, and Q, Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, California

***Attachments:** ☐None ☒Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Resource Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) MRN 1

B1. Historic Name:

B2. Common Name:

B3. Original Use: Residential

B4. Present Use: Residential

*B5. **Architectural Style:** Ranch

*B6. **Construction History:** (Construction date, alterations, and date of alterations) Los Angeles County Property Assessment Information System indicates that this modest tract home was built in 1970. It was deeded by Mary Lu Miller to Gil I. and Kyung A. Shin in 1997 and currently remains in the Shin family.

*B7. **Moved?** √ No ___ Yes ___ Unknown **Date:** ___ **Original Location:**

*B8. **Related Features:**

B9a. Architect: Unknown

b. Builder: Unknown

*B10. **Significance: Theme** Post-WWII suburban residential development

Area Cerritos

Period of Significance 1945-1975

Property Type Single-family residence

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) This residence was constructed in 1970, at a time when the City of Cerritos was experiencing an acceleration in the transition from its former agricultural roots to a suburban community. The development of Tract No. 25698, in which the residence is located, was predicated on the channelization of Coyote Creek in 1966-1967, which abated the flood threat. It retains sufficient integrity to relate to this episode in Cerritos' growth, but as a typical example of tract housing design built during the era, it could not be considered to have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has the tract as a whole. Historical background research has identified no persons or specific events of recognized historic significance, nor any prominent architects, designers, or builders in close association with the building. (*Continued on page 4*)

B11. Additional Resource Attributes: (List attributes and codes)

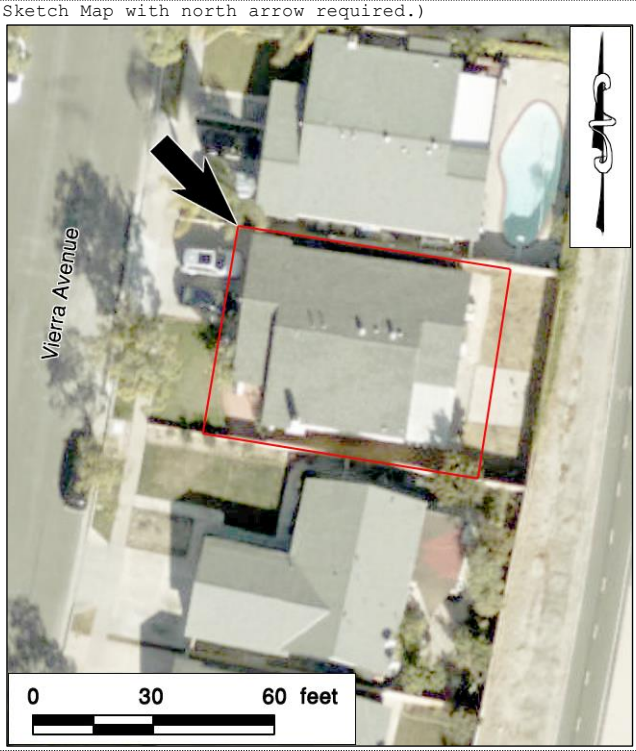
B12. References: Los Angeles County Assessor's Property Assessment Information System (maps.assessor.lacounty.gov/m/); property character and history reports from Nite Owl Pro by Chicago Title Insurance Company; aerial and satellite photographs taken in 1953-2021 (www.historicaerials.com and Google Earth)

B13. Remarks:

*B14. **Evaluator:** Terri Jacquemain, M.A.

*Date of Evaluation: April 20, 2023

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

*Required information

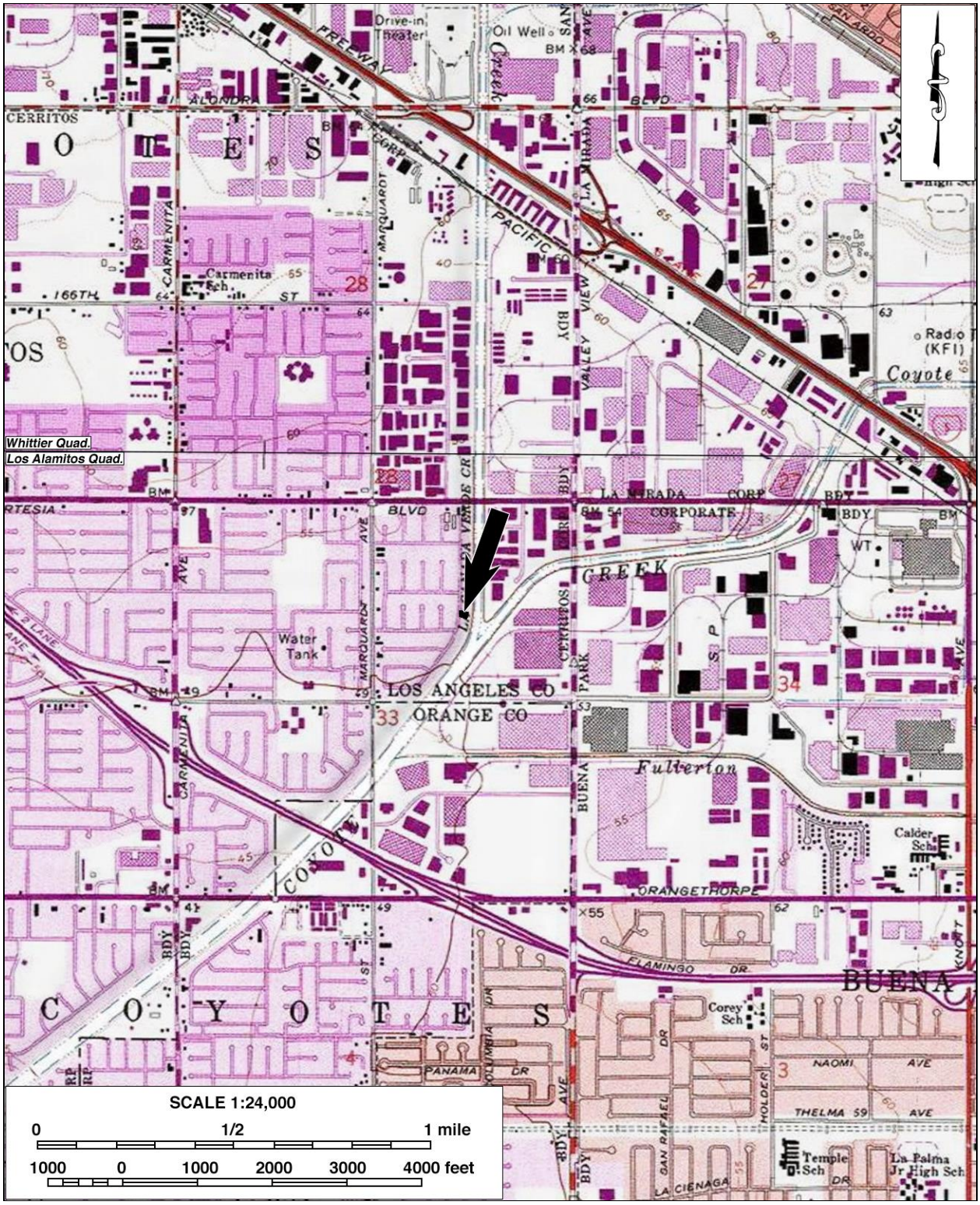
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # _____
HRI # _____
Trinomial _____

*Resource Name or # (Assigned by recorder) MRN 1

*Map Name: Los Alamitos and Whittier, Calif. *Scale: 1:24,000 *Date of Maps: 1981



* Required information

Recorded by: Terri Jacquemain and Stephen O'Neil
***Date:** April 6, 2023 √ Continuation Update

***B10. Significance (continued):** In terms of architectural or aesthetic merits, it exhibits an updated Ranch style that became popular at the time, but it does not represent an important example of the style or any type, period, region, or method of construction. Furthermore, it does not appear to hold any special historical interest to the community or the potential for any important information for the study of the 1970s era, a period of history that is well documented in published literature, archival records, and contemporary sources. Based on these considerations, the residence at 17814 Vierra Avenue does not appear eligible for listing National Register of Historic Places or the California Register of Historical Resources.

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # (Pending)
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code **Reviewer** **Date**

***Resource Name or #** (Assigned by recorder) MRN 2

P1. Other Identifier: 17818 Vierra Avenue

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Los Alamitos **Date** 1981
T3S; **R**11W; NE **1/4 of Sec** 33 ; S.B. **B.M.** (within the Los Coyotes land grant)

c. Address 17818 Vierra Avenue **City** Cerritos **Zip** 90703

d. UTM: (Give more than one for large and/or linear resources) **Zone** 11 ; 404,397 **mE**/ 3,748,125 **mN**
UTM Derivation: ☐ USGS Quad ☐ GIS ☒ Google Earth

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate) Assessor's Identification Number 7022-022-004; on the eastern side of Vierra Avenue between Ashworth Street and Rose Street

***P3a Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This wood-framed, single-story, L-shape building rests on a concrete slab foundation and is surmounted by a cross-gable roof sheathed in dark composite shingles and ending in wide eaves and exposed rafters. Blue, smooth-textured stucco clads the exterior walls. The area above the garage sports an exposed ridge board and king post over a fiberglass/steel garage door with fanlights, flanked by battered wall extensions. Windows are vertically divided vinyl casement windows. An exterior steel security door fills the front entry.

***P3b. Resource Attributes:** (List attributes and codes) HP2: Single-family property

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo (view, date, accession number): April 6, 2023; view to the southeast

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
1970

***P7. Owner and Address:** Nadres Family (same address)

***P8. Recorded by** (Name, affiliation, & address): Terri Jacquemain, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324, and Stephen O'Neil, UltraSystems Environmental, 16431 Scientific Way, Irvine, CA 92618

***P9. Date Recorded:** April 6, 2023

***P10. Survey Type** (describe): Intensive-level survey for Section 106 compliance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang and Terri Jacquemain (2023): Supplemental Historical Resources Evaluation Report: OC Loop Segments O, P, and Q, Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, California

***Attachments:** ☐None ☒Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Resource Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) MRN 2

B1. Historic Name:

B2. Common Name:

B3. Original Use: Residential

B4. Present Use: Residential

*B5. **Architectural Style:** Ranch

*B6. **Construction History:** (Construction date, alterations, and date of alterations) L Los Angeles County Property Assessment Information System indicates that this modest tract home was built in 1970. It has been the property of Potenciano C. and Marites B Nadres and/or their family since 1986.

*B7. **Moved?** √ No ___ Yes ___ Unknown **Date:** ___ **Original Location:**

*B8. **Related Features:**

B9a. Architect: Unknown

b. Builder: Unknown

*B10. **Significance: Theme** Post-WWII suburban residential development

Area Cerritos

Period of Significance 1945-1975

Property Type Single-family residence

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) This residence was constructed in 1970, at a time when the City of Cerritos was experiencing an acceleration in the transition from its former agricultural roots to a suburban community. The development of Tract No. 25698, in which the residence is located, was predicated on the channelization of Coyote Creek in 1966-1967, which abated the flood threat. It retains sufficient integrity to relate to this episode in Cerritos' growth, but as a typical example of tract housing design built during the era, it could not be considered to have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has the tract as a whole. Historical background research has identified no persons or specific events of recognized historic significance, nor any prominent architects, designers, or builders in close association with the building. (*Continued on page 4*)

B11. Additional Resource Attributes: (List attributes and codes)

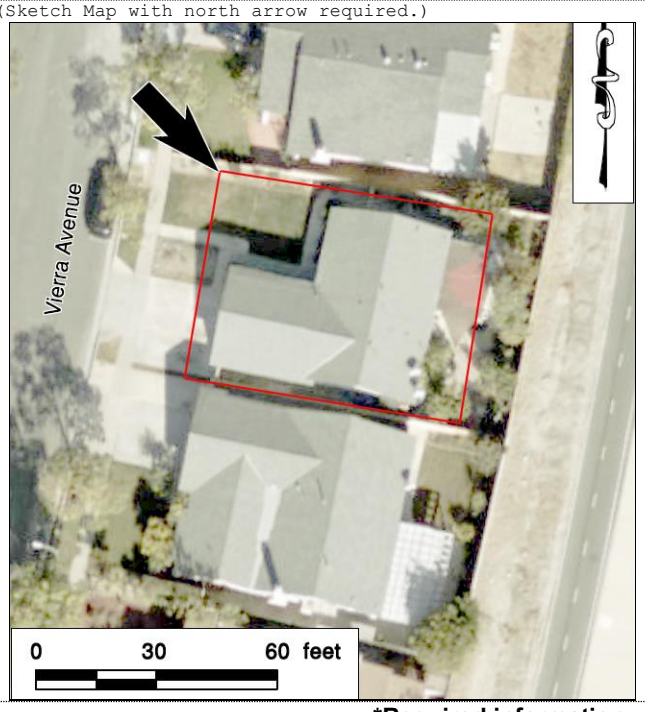
B12. References: Los Angeles County Assessor's Property Assessment Information System (maps.assessor.lacounty.gov/m/); property character and history reports from Nite Owl Pro by Chicago Title Insurance Company; aerial and satellite photographs taken in 1953-2021 (www.historicaerials.com and Google Earth)

B13. Remarks:

*B14. **Evaluator:** Terri Jacquemain, M.A.

*Date of Evaluation: April 20, 2023

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

*Required information

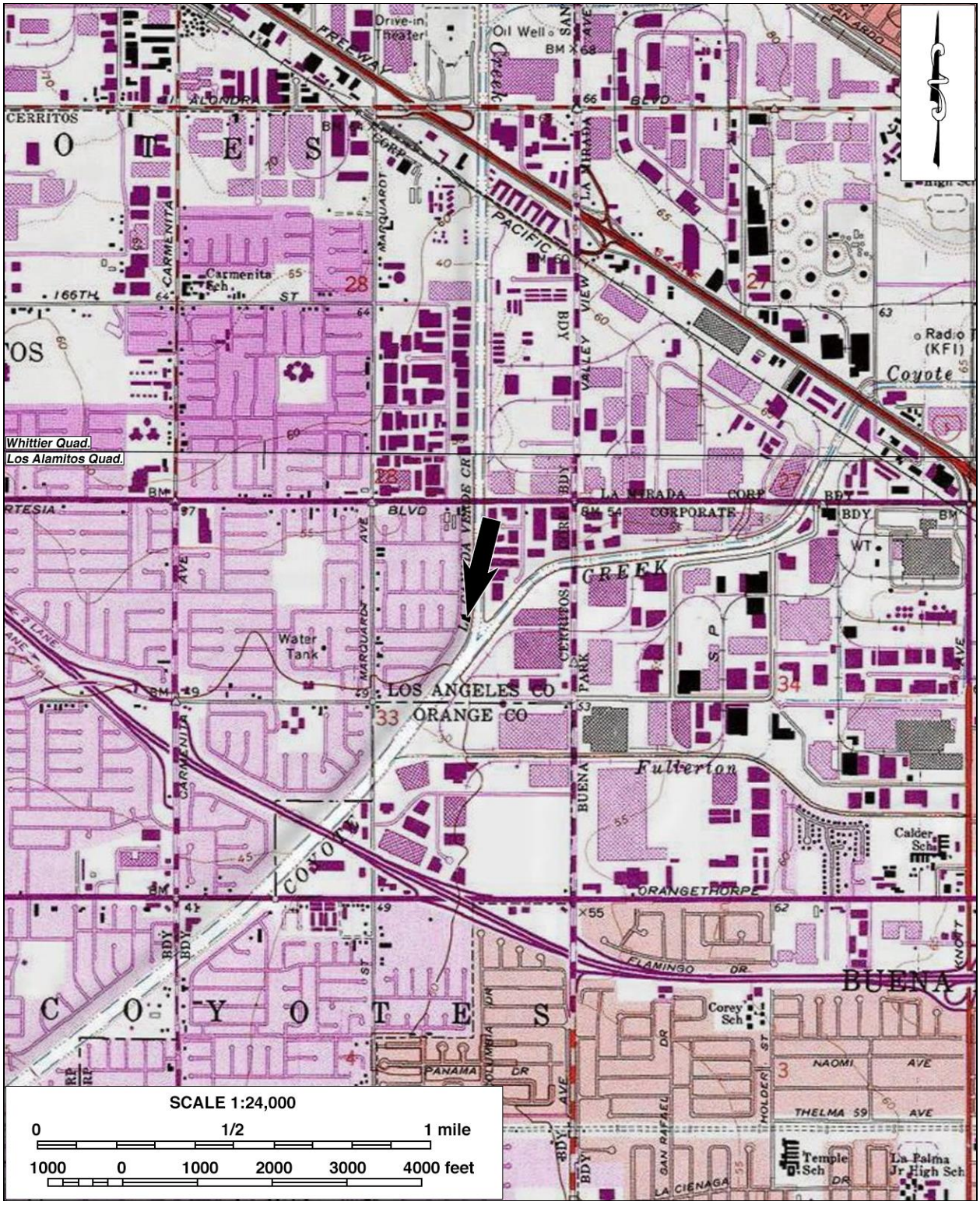
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # _____
HRI # _____
Trinomial _____

Page 3 of 4 *Resource Name or # (Assigned by recorder) MRN 2

*Map Name: Los Alamitos and Whittier, Calif. *Scale: 1:24,000 *Date of Maps: 1981



Recorded by: Terri Jacquemain and Stephen O'Neil
***Date:** April 6, 2023 √ Continuation Update

***B10. Significance (continued):** In terms of architectural or aesthetic merits, it exhibits an updated Ranch style that became popular at the time, but it does not represent an important example of the style or any type, period, region, or method of construction. Furthermore, it does not appear to hold any special historical interest to the community or the potential for any important information for the study of the 1970s era, a period of history that is well documented in published literature, archival records, and contemporary sources. Based on these considerations, the residence at 17818 Vierra Avenue does not appear eligible for listing National Register of Historic Places or the California Register of Historical Resources.

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # (Pending)
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) MRN 3

P1. Other Identifier: 17824 Vierra Avenue

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Los Alamitos **Date** 1981
T3S; **R**11W; NE **1/4 of Sec** 33 ; S.B. **B.M.** (within the Los Coyotes land grant)

c. Address 17824 Vierra Avenue **City** Cerritos **Zip** 90703

d. UTM: (Give more than one for large and/or linear resources) **Zone** 11 ; 404,394 **mE**/ 3,748,111 **mN**
UTM Derivation: ☐ USGS Quad ☐ GIS ☒ Google Earth

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate) Assessor's Identification Number 7022-022-005; on the eastern side of Vierra Avenue between Ashworth Street and Rose Street

***P3a Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This wood-framed, single-story, L-shape building rests on a concrete slab foundation and is surmounted by a low-pitched cross-gable roof sheathed in dark composite shingles and ending in wide eaves with exposed rafters and fascia boards. Smooth-textured tan stucco clads the exterior walls. The area above the garage door sports exposed beam ends at the peak and the corners as well as a decorative medallion over the fiberglass/steel garage door with fanlights. The entrance features a paneled door with decorative glazing and a sidelight. A narrow roof extension protrudes over a shallow bay centered on a vinyl-framed, multi-paned windows on the west-facing primary façade.

***P3b. Resource Attributes:** (List attributes and codes) HP2: Single-family property

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo (view, date, accession number): April 6, 2023; view to the east

***P6. Date Constructed/Age and Sources:** ☒ Historic ☐ Prehistoric ☐ Both 1970

***P7. Owner and Address:** Jeong Hee Lee and family (same address)

***P8. Recorded by** (Name, affiliation, & address): Terri Jacquemain, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324, and Stephen O'Neil, UltraSystems Environmental, 16431 Scientific Way, Irvine, CA 92618

***P9. Date Recorded:** April 6, 2023

***P10. Survey Type** (describe): Intensive-level survey for Section 106 compliance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang and Terri Jacquemain (2023): Supplemental Historical Resources Evaluation Report: OC Loop Segments O, P, and Q, Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, California

***Attachments:** ☐None ☒Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Resource Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) MRN 3

B1. Historic Name:

B2. Common Name:

B3. Original Use: Residential

B4. Present Use: Residential

*B5. **Architectural Style:** Ranch

*B6. **Construction History:** (Construction date, alterations, and date of alterations) Los Angeles County Property Assessment Information System indicates that this modest tract home was built in 1970. Jeong Hee Lee and family acquired the property in 2012 from Henry S. and Laura S. Miyabe, who had been owners since at least 1996.

*B7. **Moved?** √ No ___ Yes ___ Unknown **Date:** ___ **Original Location:**

*B8. **Related Features:**

B9a. Architect: Unknown

b. Builder: Unknown

*B10. **Significance: Theme** Post-WWII suburban residential development

Area Cerritos

Period of Significance 1945-1975

Property Type Single-family residence

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) This residence was constructed in 1970, at a time when the City of Cerritos was experiencing an acceleration in the transition from its former agricultural roots to a suburban community. The development of Tract No. 25698, in which the residence is located, was predicated on the channelization of Coyote Creek in 1966-1967, which abated the flood threat. It retains sufficient integrity to relate to this episode in Cerritos' growth, but as a typical example of tract housing design built during the era, it could not be considered to have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has the tract as a whole. Historical background research has identified no persons or specific events of recognized historic significance, nor any prominent architects, designers, or builders in close association with the building. (*Continued on page 4*)

B11. Additional Resource Attributes: (List attributes and codes)

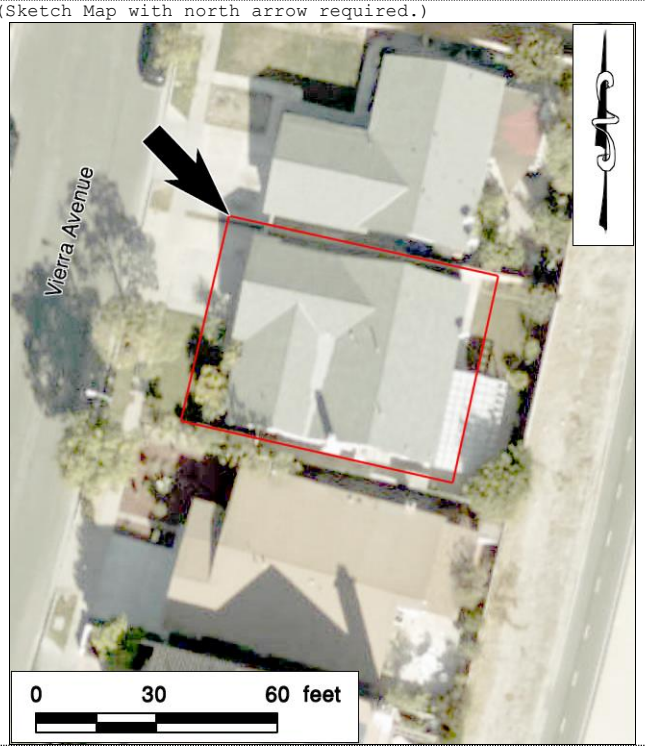
B12. References: Los Angeles County Assessor's Property Assessment Information System (maps.assessor.lacounty.gov/m/); property character and history reports from Nite Owl Pro by Chicago Title Insurance Company; aerial and satellite photographs taken in 1953-2021 (www.historicaerials.com and Google Earth)

B13. Remarks:

*B14. **Evaluator:** Terri Jacquemain, M.A.

***Date of Evaluation:** April 20, 2023

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

*Required information

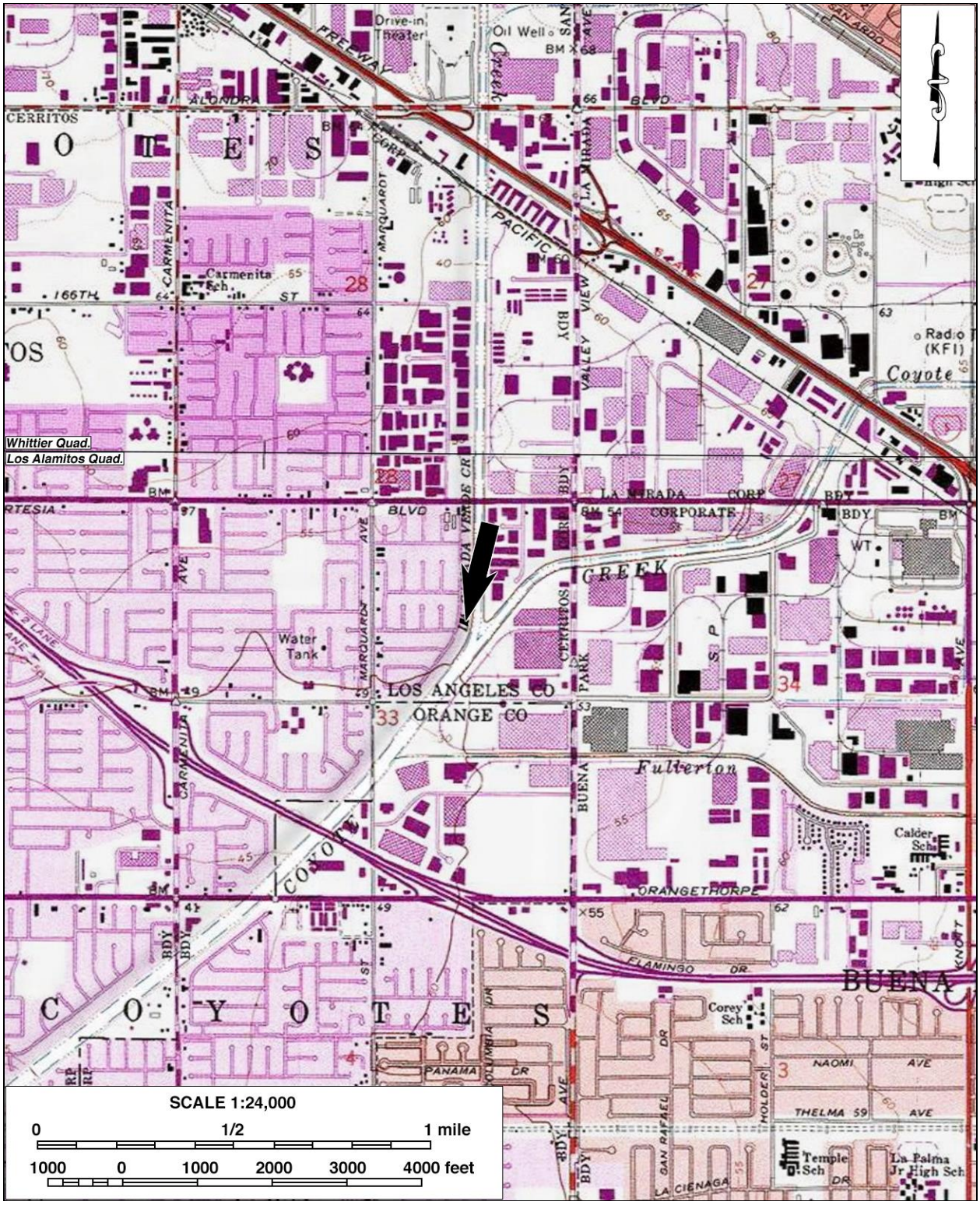
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI #
Trinomial

Page 3 of 4 *Resource Name or # (Assigned by recorder) MRN 3

*Map Name: Los Alamitos and Whittier, Calif. *Scale: 1:24,000 *Date of Maps: 1981



Recorded by: Terri Jacquemain and Stephen O'Neil
***Date:** April 6, 2023 √ Continuation Update

***B10. Significance (continued):** In terms of architectural or aesthetic merits, it exhibits an updated Ranch style that became popular at the time, but it does not represent an important example of the style or any type, period, region, or method of construction. Furthermore, it does not appear to hold any special historical interest to the community or the potential for any important information for the study of the 1970s era, a period of history that is well documented in published literature, archival records, and contemporary sources. Based on these considerations, the residence at 17824 Vierra Avenue does not appear eligible for listing National Register of Historic Places or the California Register of Historical Resources.

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # (Pending)
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code **Reviewer** **Date**

Page 1 **of** 4 ***Resource Name or #** (Assigned by recorder) MRN 4

P1. Other Identifier: 17830 Vierra Avenue

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Los Alamitos **Date** 1981
T3S; **R**11W; NE **1/4 of Sec** 33 ; S.B. **B.M.** (within the Los Coyotes land grant)

c. Address 17830 Vierra Avenue **City** Cerritos **Zip** 90703

d. UTM: (Give more than one for large and/or linear resources) **Zone** 11 ; 404,390 **mE**/ 3,748,095 **mN**
UTM Derivation: ☐ USGS Quad ☐ GIS ☒ Google Earth

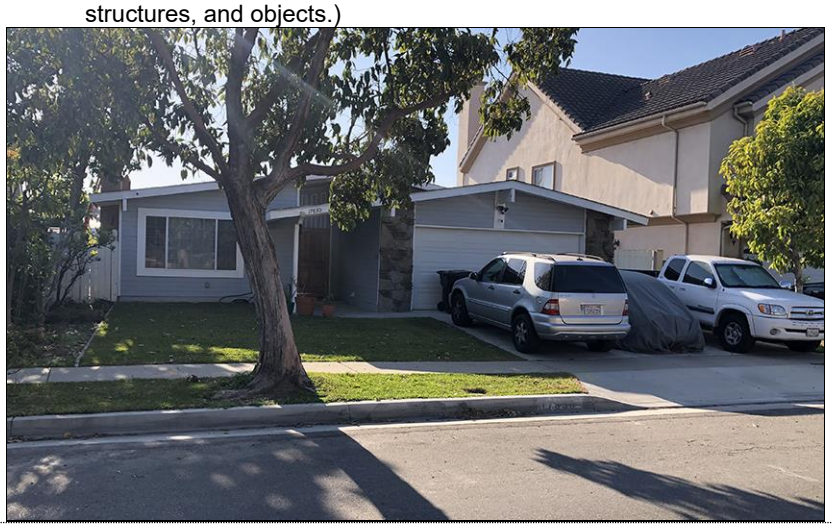
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate) Assessor's Identification Number 7022-022-006; on the east side of Vierra Avenue between Ashworth Street and Rose Street

***P3a Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This wood-framed, single-story, rectangular residence rests on a concrete slab foundation and is surmounted by a low-pitch front-gable roof, with a matching secondary gable over the garage and the front entry. The roof is covered by dark composite shingles and ends in wide eaves with closed soffits, and the gable ends feature exposed beams at the peaks and the corners. Narrow horizontal board siding, painted blue, clads the exterior walls, with the side jambs of the garage clad with uncoursed stone veneer. A paneled entry door adorned by a tall lintel with decorative paneling appears original to the building design. Fenestration includes a vinyl-framed tripart sliding window next to the front door.

***P3b. Resource Attributes:** (List attributes and codes) HP2: Single-family property

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☒ Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo (view, date, accession number): April 6, 2023; view to the east

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
1970-1972

***P7. Owner and Address:** Subal and Neeru Goswami (same address)

***P8. Recorded by** (Name, affiliation, & address): Terri Jacquemain, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324, and Stephen O'Neil, UltraSystems Environmental, 16431 Scientific Way, Irvine, CA 92618

***P9. Date Recorded:** April 6, 2023

***P10. Survey Type** (describe): Intensive-level survey for Section 106 compliance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang and Terri Jacquemain (2023): Supplemental Historical Resources Evaluation Report: OC Loop Segments O, P, and Q, Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, California

***Attachments:** ☐None ☒Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Resource Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) MRN 4

B1. Historic Name:

B2. Common Name:

B3. Original Use: Residential

B4. Present Use: Residential

*B5. **Architectural Style:** Ranch

*B6. **Construction History:** (Construction date, alterations, and date of alterations) Los Angeles County Property Assessment Information System indicates that this modest tract home was built in 1970-1972. Current owners Subal and Neeru Goswami acquired the property in 1998 from Vijay K. and Rameshwari Aggarwal, who had been owners since at least 1994.

*B7. **Moved?** √ No ___ Yes ___ Unknown **Date:** ___ **Original Location:**

*B8. **Related Features:**

B9a. Architect: Unknown

b. Builder: Unknown

*B10. **Significance: Theme** Post-WWII suburban residential development

Area Cerritos

Period of Significance 1945-1975

Property Type Single-family residence

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) This residence was constructed in 1970, at a time when the City of Cerritos was experiencing an acceleration in the transition from its former agricultural roots to a suburban community. The development of Tract No. 25698, in which the residence is located, was predicated on the channelization of Coyote Creek in 1966-1967, which abated the flood threat. It retains sufficient integrity to relate to this episode in Cerritos' growth, but as a typical example of tract housing design built during the era, it could not be considered to have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has the tract as a whole. Historical background research has identified no persons or specific events of recognized historic significance, nor any prominent architects, designers, or builders in close association with the building. (*Continued on page 4*)

B11. Additional Resource Attributes: (List attributes and codes)

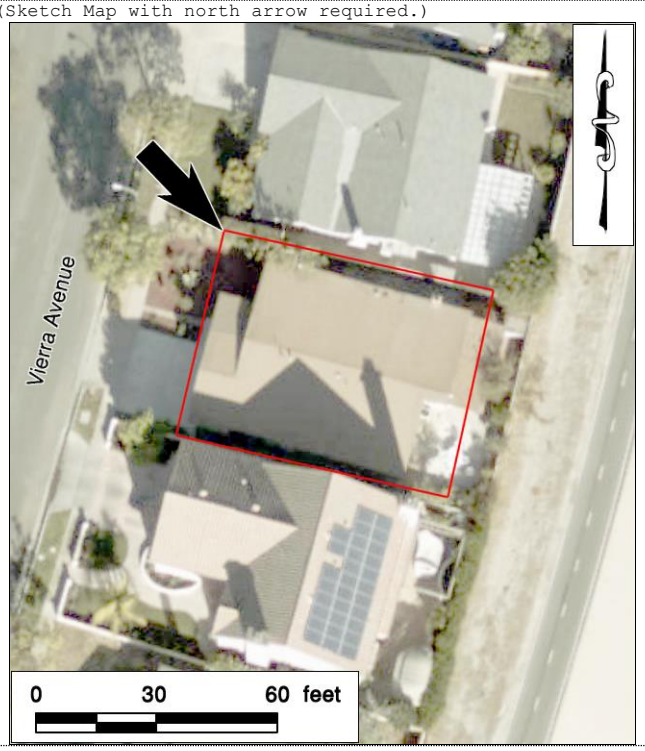
B12. References: Los Angeles County Assessor's Property Assessment Information System (maps.assessor.lacounty.gov/m/); property character and history reports from Nite Owl Pro by Chicago Title Insurance Company; aerial and satellite photographs taken in 1953-2021 (www.historicaerials.com and Google Earth)

B13. Remarks:

*B14. **Evaluator:** Terri Jacquemain, M.A.

***Date of Evaluation:** April 20, 2023

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

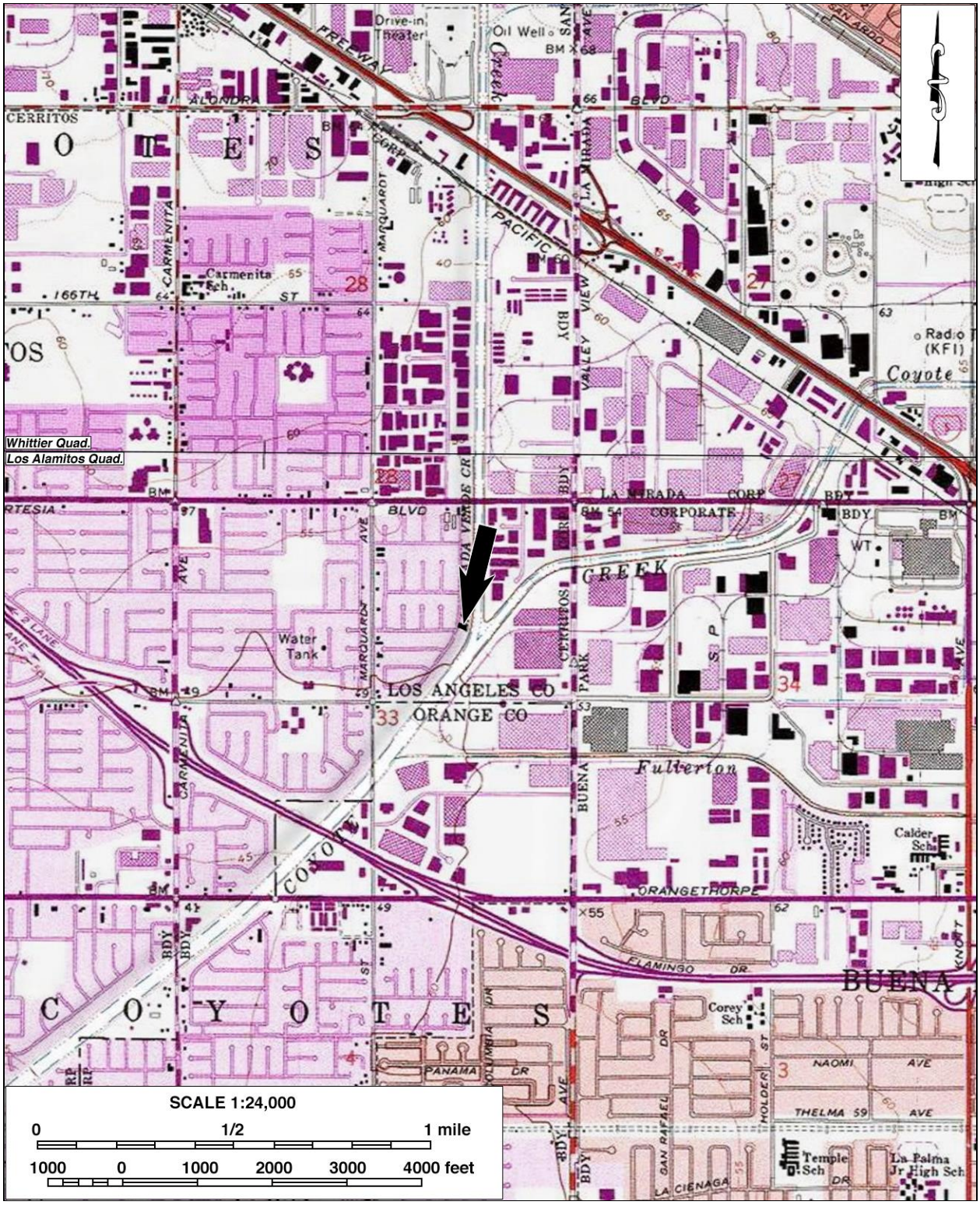
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI #
Trinomial

Page 3 of 4 *Resource Name or # (Assigned by recorder) MRN 4

*Map Name: Los Alamitos and Whittier, Calif. *Scale: 1:24,000 *Date of Maps: 1981



Recorded by: Terri Jacquemain and Stephen O'Neil
***Date:** April 6, 2023 √ Continuation Update

***B10. Significance (continued):** In terms of architectural or aesthetic merits, it exhibits an updated Ranch style that became popular at the time, but it does not represent an important example of the style or any type, period, region, or method of construction. Furthermore, it does not appear to hold any special historical interest to the community or the potential for any important information for the study of the 1970s era, a period of history that is well documented in published literature, archival records, and contemporary sources. Based on these considerations, the residence at 17830 Vierra Avenue does not appear eligible for listing National Register of Historic Places or the California Register of Historical Resources.

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # (Pending)
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) MRN 5

P1. **Other Identifier:** Prudential Overall Supply

***P2.** **Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b.** **USGS 7.5' Quad** Los Alamitos **Date** 1981
T3S; **R**11W; NE **1/4 of Sec** 33 ; S.B. **B.M.** (within the Los Coyotes land grant)

d. **UTM:** (Give more than one for large and/or linear resources) **Zone** 11 ; 404,528 **mE**/ 3,748,225 **mN**
UTM Derivation: ☐ USGS Quad ☐ GIS ☒ Google Earth

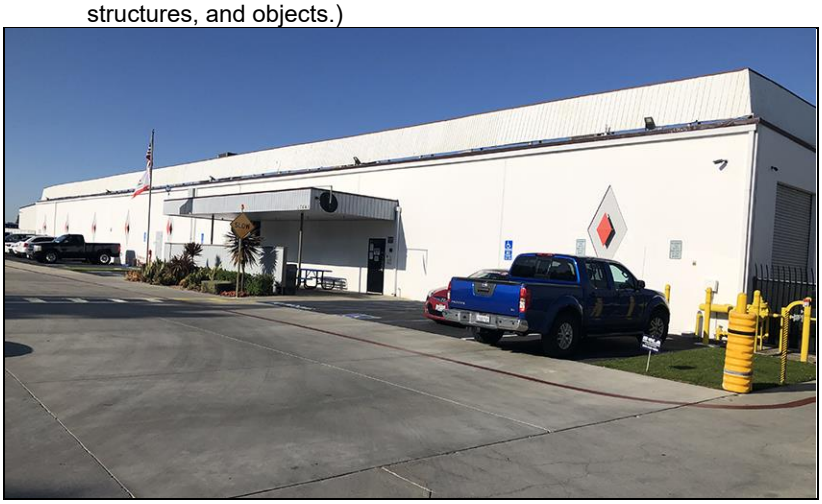
e. **Other Locational Data:** (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate) Assessor's Identification Number 7022-023-022, at the southern end of Fabrica Way and the confluence of the North Form and the East Fork of the Coyote Creek Channel

***P3a** **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This rectangular-shaped, one-story light industrial building is a precast concrete tilt-up structure topped by a slightly receded, flat-topped "modern mansard" roof. The steep slopes of the roof along the perimeters of the building are clad in metal sheets. Below the roof line the fascia sports metal coping to which high intensity flood lights are attached. On the east-facing primary façade, the main entrance consists of commercial glass doors with a transom and sidelights, set next to a patio area that is sheltered by a freestanding wall and a pent roof resting on round metal columns. The exterior side of wall and the sides of the pent roof are clad with vertical boards. A freight bay and loading dock with roll-up metal doors is found on the northern façade. There is no fenestration throughout the building.

***P3b.** **Resource Attributes:** (List attributes and codes) HP2: 1-3 story commercial building

***P4.** **Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (isolates, etc.)

P5a. **Photograph or Drawing** (Photograph required for buildings, structures, and objects.)



P5b. **Description of Photo** (view, date, accession number): April 6, 2023; view to the southwest

***P6.** **Date Constructed/Age and Sources:** ☒ Historic ☐ Prehistoric ☐ Both
1972

***P7.** **Owner and Address:** Prudential Overall Supply (same address)

***P8.** **Recorded by** (Name, affiliation, & address): Terri Jacquemain, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324, and Stephen O'Neil, UltraSystems Environmental, 16431 Scientific Way, Irvine, CA 92618

***P9.** **Date Recorded:** April 6, 2023

***P10.** **Survey Type** (describe): Intensive-level survey for Section 106 compliance

***P11.** **Report Citation:** (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang and Terri Jacquemain (2023): Supplemental Historical Resources Evaluation Report: OC Loop Segments O, P, and Q, Coyote Creek Bikeway Project, Cities of Cerritos, La Mirada, and Buena Park, Los Angeles and Orange Counties, California

***Attachments:** ☐None ☒Location Map ☐Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Resource Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z

*Resource Name or # (Assigned by recorder) MRN 5

B1. Historic Name:

B2. Common Name:

B3. Original Use: Warehouse

B4. Present Use: Warehouse

*B5. Architectural Style: Vernacular

*B6. Construction History: (Construction date, alterations, and date of alterations) Los Angeles County Property Assessment Information System indicates that this light industrial building was constructed in 1972. It has been owned and occupied by Prudential Overall Supply since at least 1982.

*B7. Moved? √ No ___ Yes ___ Unknown Date: ___ Original Location:

*B8. Related Features:

B9a. Architect: Unknown b. Builder: Unknown

*B10. Significance: Theme Post-WWII urban industrial/commercial development

Area Cerritos

Period of Significance 1945-1975

Property Type Light industrial warehouse

Applicable Criteria N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.) This building was constructed at the confluence of the two forks of Coyote Creek within the first decade after the creek was channelized, abating the flood rick and allowing for development in the vicinity. It is one of several industrial buildings constructed in this area during the early 1970s and like most of them retains sufficient historic integrity to relate to this episode in Cerritos' growth. As a typical utilitarian industrial building, however, it does not demonstrate a unique or particularly remarkable association with this pattern of events in local and regional history.

During the brief overlap of its history with the historic period (i.e., 50 years ago), the building is not known to have been associated with any persons or specific events of recognized historic significance, nor was its

(*Continued on page 4*)

B11. Additional Resource Attributes: (List attributes and codes)

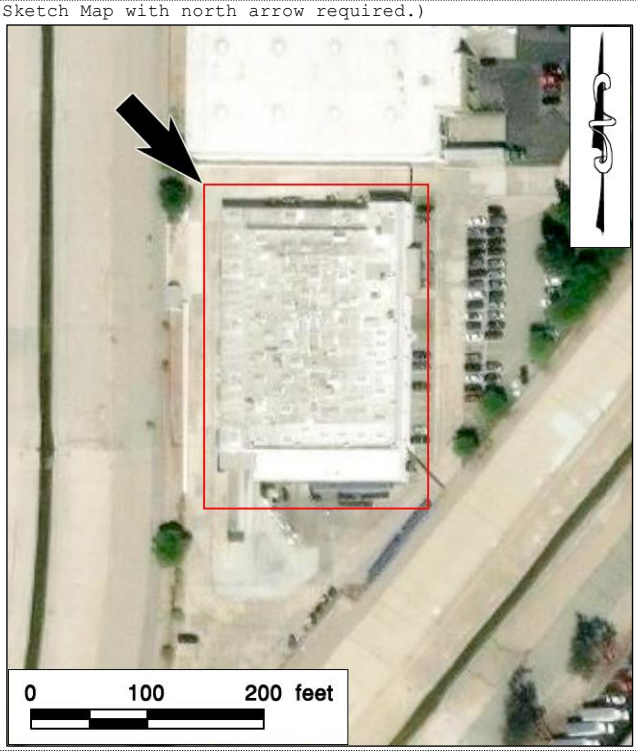
B12. References: Los Angeles County Assessor's Property Assessment Information System (maps.assessor.lacounty.gov/m/); property character and history reports from Nite Owl Pro by Chicago Title Insurance Company; aerial and satellite photographs taken in 1953-2021 (www.historicaerials.com and Google Earth)

B13. Remarks:

*B14. Evaluator: Terri Jacquemain, M.A.

*Date of Evaluation: April 20, 2023

(Sketch Map with north arrow required.)



(This space reserved for official comments.)

*Required information

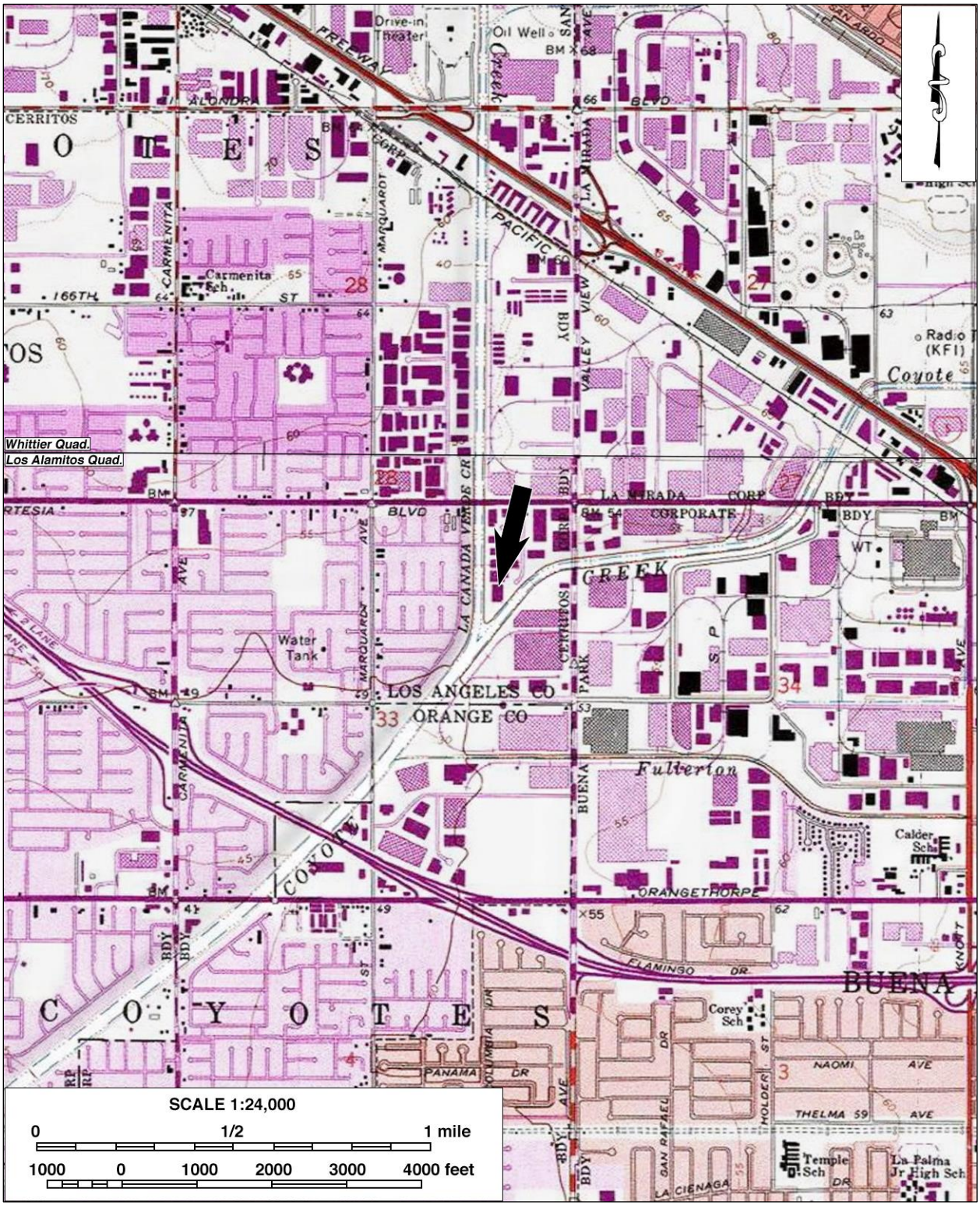
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # _____
HRI # _____
Trinomial _____

*Resource Name or # (Assigned by recorder) MRN 5

*Map Name: Los Alamitos and Whittier, Calif. *Scale: 1:24,000 *Date of Maps: 1981



* Required information

Recorded by: Terri Jacquemain and Stephen O'Neil
***Date:** April 6, 2023 √ Continuation Update

***B10. Significance (continued):** construction feature known to embody the work of a prominent architect, designer, or builder. The concrete tilt-up construction was and remains ubiquitous, and this building does not represent an important example of any style, type, period, region, method of construction, or any particular architectural ideals or design concepts. It does not appear to hold any special historical interest to the community or a high potential to yield any significance information for the study of the 1970s era, a period of history that is well documented in published literature, archival records, and contemporary sources. Based on these considerations, the warehouse at 17641 Fabrica Way does not appear to be eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.

ATTACHMENT E
CORRESPONDENCE WITH
LOCAL COMMUNITY REPRESENTATIVES

OC LOOP SEGMENTS O, P, AND Q
COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works

CONTACT LOG
LOCAL GOVERNMENT COMMUNITY REPRESENTATIVES

Organization	Contact		Comments
	Written	Telephone	
Mike O'Grady, Environmental Services Manager Community Development Department, City of Cerritos 18125 Bloomfield Avenue Cerritos, CA 92073 (562) 916-1201 mogrady@cerritos.us	4/17/2023 5/9/2023 (resent)	4/17/2023, 11:14 am 4/20/2023, 12:05 pm 5/8/2023, 1:33 pm	Left telephone messages. No response received to date.
Orange County Historical Society/Heritage Museum 3101 W. Harvard Street Santa Ana, CA 92704 (714) 540-0404, ext. 226 info@orangecountyhistory.org	4/19/2023	4/20/2023, 12:32 pm 5/8/2023, 1:35 pm	Left telephone messages. A computer-generated e-mail response received on April 19, 2023, states that a volunteer would reply. No further response received to date.

From: Terri <tjacquemain@crmtech.us>
Sent: Wednesday, April 17, 2023 11:03 PM
To: mogrady@cerritos.us
Subject: OC Loop Supplement Inquiry part 3

Hello Mr. O'Grady,

There has been an addition in your city to the Coyote Creek Class I Bikeway Segments O, P, and Q Project, a proposed multi-purpose parkway/trail through the Cities of Cerritos, La Mirada, and Buena Park, near the Orange-Los Angeles county line. The addition came about because a proposed bike bridge has been moved 25 feet to the south and will be several feet higher than originally proposed. In doing so, four 1970s single-family residences have been included in the Area of Potential Effect due to the potential for indirect effects. The construction date for the residences puts them within the 50-year threshold for historical significance consideration. I am writing to ask if you have any comment or concerns about the addition to the project. My inquiry is required as a part of the cultural resources component of the environmental studies for the project, as mandated by Section 106 of the National Historic Preservation Act. Any comments you provide will be included in the report.

Thank you,

Terri Jacquemain, M.A.
Historian/Architectural Historian, CRM TECH
1016 E. Cooley Drive, Suite A/B, Colton, CA 92324
(909) 824-6400; tjacquemain@crmtech.us

From: Terri <tjacquemain@crmtech.us>
Sent: Wednesday, April 19, 2023 3:13 PM
To: 'info@orangecountyhistory.org'
Subject: OC Loop Supplement Inquiry

Hello Orange County History,

There has been an addition in your county to the Coyote Creek Class I Bikeway Segments O, P, and Q Project, a proposed multi-purpose parkway/trail through the Cities of Cerritos, La Mirada, and Buena Park, near the Orange-Los Angeles county line. The addition came about because a proposed bike bridge has been moved 25 feet to the south and will be several feet higher than originally proposed. In doing so, four 1970s single-family residences have been included in the Area of Potential Effect due to the potential for indirect effects. The construction date for the residences puts them within the 50-year threshold for historical significance consideration. I am writing to ask if you have any comment or concerns about the addition to the project. My inquiry is required as a part of the cultural resources component of the environmental studies for the project, as mandated by Section 106 of the National Historic Preservation Act. Any comments you provide will be included in the report.

Thank you,

Terri Jacquemain, M.A.
Historian/Architectural Historian, CRM TECH
1016 E. Cooley Drive, Suite A/B, Colton, CA 92324
(909) 824-6400; tjacquemain@crmtech.us

From: "Orange County Historical Society [CA]" orangecountyhistory@gmail.com
Sent: Wednesday, April 19, 2023 3:14 PM
To: SRS0=XzpY2E=AK=crmtech.us=tjacquemain@orangecountyhistory.orgerri <tjacquemain@crmtech.us>''
Subject: Thank you for contacting OCHS... Re: Fwd: OC Loop Supplement Inquiry

Thank you for contacting the Orange County [CA] Historical Society! **One of our volunteers will reply to you as soon as possible.**

Meanwhile, please visit our FB page, https://www.facebook.com/ochistorical/ or website https://orangecountyhistory.com for additional information.
--
Orange County Historical Society

ATTACHMENT F
CORRESPONDENCE REGARDING ASSUMPTION OF ELIGIBILITY
COYOTE CREEK (EAST FORK) CHANNEL

OC LOOP SEGMENTS O, P, AND Q
COYOTE CREEK BIKEWAY PROJECT

Cities of Cerritos, La Mirada, and Buena Park
Los Angeles and Orange Counties, California

Federal Project No. ATPL 5955(112)
Local Agency: Orange County Department of Public Works

Stosel, Victoria@DOT

From: Price, David@DOT
Sent: Friday, May 17, 2024 11:14 AM
To: Stosel, Victoria@DOT
Cc: Carr, Jeffrey@DOT
Subject: RE: Request to use for CSO approval for use of Stip. VIII.C.4 East Fork Coyote Creek
Attachments: Final 1 ATPL 5955 112 VIII C 4 request (002) (004).pdf

Hi Victoria,

After review, the Cultural Studies Office approves the assumption of eligibility for the Coyote Creek Channel, East Fork due to large resource size and limited potential for effects, pursuant to Stipulation VIII.C.4 of the Section 106 PA. Please keep a copy of this email for your records.

Best,

David Price
Section 106 Coordinator
Cultural Studies Office
Caltrans Division of Environmental Analysis
1120 N Street, MS 27, Sacramento, CA 95814
(916) 879-6758

From: Stosel, Victoria@DOT <victoria.stosel@dot.ca.gov>
Sent: Wednesday, May 15, 2024 2:11 PM
To: Price, David@DOT <David.Price@dot.ca.gov>; Carr, Jeffrey@DOT <Jeffrey.Carr@dot.ca.gov>
Cc: Prince-Buitenhuys, Julia@DOT <Julia.Prince-Buitenhuys@dot.ca.gov>
Subject: FW: Request to use for CSO approval for use of Stip. VIII.C.4 East Fork Coyote Creek

Good afternoon David and Jeff,

I was hoping to receive a status update on the request that was sent to use VIII.C.4 for a local assistance project, ATPL 5955. The request was sent to Julia on May 3, 2024 and I wanted to follow up and see if there was anything else you needed for your review.

Thank you for your time and consideration.

Regards,

Victoria Stosel

D-12 Environmental Analysis

From: Stosel, Victoria@DOT
Sent: Friday, May 3, 2024 3:41 PM
To: Prince-Buitenhuys, Julia@DOT <Julia.Prince-Buitenhuys@dot.ca.gov>

Cc: Liu, Brian M@DOT <brian.liu@dot.ca.gov>
Subject: Request to use for CSO approval for use of Stip. VIII.C.4 East Fork Coyote Creek

Good afternoon Julia,

The Orange County Department of Public Works, in cooperation with the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans), Federal Project No. ATPL-5595 (112), proposed to construct an asphalt bike path along the west bank of the Coyote Creek Channel, starting at the confluence of the north and east forks of the channel at the south end in the city of Cerritos, north for 2.7 miles connecting to another portion of the Coyote Creek Bikeway at La Mirada Boulevard/Malvern Avenue in the Cities of Buena Park and La Mirada. This undertaking will be conducted in a work area approximately 250 feet wide (east/west) and 2.7 miles long (north/south), closing a gap in the 66-mile regional bikeway corridor called the OC Loop that is located along the length of the Coyote Creek flood control channel upstream and downstream of the Santa Ana Freeway (I-15). This gap is designated as Segments O, P, and Q. The undertaking is located in the Cities of Cerritos, Buena Park, and La Mirada in Orange County and Los Angeles County within Caltrans District 12.

As part of the compliance for this project a record search was completed in 2020. The original record search remains valid as all the changes have remained within the original scope of the records search. During the pedestrian survey (conducted in 2020) Coyote Creek, East Fork Channel was recorded on a DPR form. The modifications to the project plans will not alter the nature and extent of the undertaking's impact on this resource.

Per **Stipulation VIII.C.4** of the Caltrans Section 106 Programmatic Agreement, Caltrans District -12 Environmental Analysis is requesting CSO approval to consider the Coyote Creek, East Fork Branch eligible for listing in the National Register for the purposes of this project only because special circumstances preclude its complete evaluation.

The Findings for this project will be **No Historic Properties Affected** because the property will not be affected.

Please contact me with any questions you may have or if you need any additional information.

Regards,

Victoria Stosel

The California Department of Transportation (Caltrans), in cooperation with the Federal Highway Administration (FHWA), and the Orange County Department of Public Works has proposed an undertaking known as the OC Loop Segments O, P, Q Coyote Creek Bikeway Project in the Cities of Cerritos, La Mirada and Buena Park, along the boundary between Los Angeles and Orange Counties, within Caltrans District 12 (Federal Aid Project No. ATPL-5955 (112). The project extends across two counties, for a total approximate length of 2.7 miles. The Project was initially approved in November 2020 and a Supplemental HPSR was approved in October 2021. The Orange County Department of Public Works has made additional modifications to the project plans in response to technical issues encountered in the design process or raised by the Los Angeles Department of the U.S. Army Corps of Engineers. These changes include relocating the proposed Coyote Creek Channel overcrossing in the City of Cerritos approximately 25 feet further south, increasing the height of the bridge from 6 feet to approximately 12 feet, and adding a 9-foot-tall privacy wall along the boundary of five adjacent single family residential properties near the western end of the bridge.

Coyote Creek is roughly 13.7 miles long and is a tributary to the San Gabriel River. Starting at the border of Los Angeles and Orange Counties Coyote Creek rises in two forks in the north westerly corner of Orange County. While the project takes place near both the North and East Forks of Coyote Creek the work planned occurs only on the East Fork.

As part of our compliance, a record search and pedestrian survey was conducted within the APE of the project. A primary record for the Coyote Creek Channel, East Fork was completed in February 2020. The site consists of a 2.7 miles segment of concrete-lined drainage channel containing the East Fork of Coyote Creek, a major tributary of the San Gabriel River. The DPR indicates the channelization of this segment of Coyote Creek occurred in different phases, with work on portions of this specific segment of Coyote Creek starting in the 1940s. Under L-7, Integrity Considerations, the resource is described as a late-historic-period infrastructure feature of standard design and construction. The form notes that the concrete channel, in its current configuration, was not completed by the U.S. Army Corps of Engineers until 1966-1967.

The main portion of the channel will not be touched by the planned overcrossing. The main prism portion of the channel will not be impacted by the new construction, as the new structure will touch down well outside of the main channel area. Recent design changes show a span of Coyote Creek with no impact within the channel. As the bridge is a modern construct the addition of the over crossing will not impact the potential eligibility of the channel. There are currently three street crossings (Rosecrans Avenue, South La Mirada Boulevard and Stage Road) in the local vicinity of the project. The addition of bridge will not impact the setting of the resource.

Among the project modifications outlined above, the newly identified logistic access points, will only be temporary and only for the life of the project. These access points are along the side of the East Fork of Coyote Creek are temporary and will not involve the main channel. Along Coyote Creek (East Fork and North Fork) Channel the associated transportation plan does not increase the horizontal extent of the APE, since these activities will be carried out using existing streets,

shoulders, channel access roads, and areas adjacent to the concrete-lined channel itself. No alterations will be required on any of these features. However, the vertical APE will increase by 6 feet in this area due to changes in the overcrossings' height.

Per **Stipulation VIII.C.4** of the Caltrans Section 106 Programmatic Agreement, Caltrans District 12 Environmental Analysis, Specialist Branch is requesting CSO approval to consider the Coyote Creek Channel, East Fork eligible for listing in the National Register for the purposes of the project only because special circumstances preclude its complete evaluation. The Coyote Creek Channel East consists of a 2.7 miles of a concrete-lined drainage channel. Due to the large size of the resource, which is part of a much larger flood control system that handles run off and drainage from the 689 square mile San Gabriel River watershed, a formal evaluation would not be feasible at this time.

The finding for this project will be **No Historic Properties Affected** because the properties identified in the SHPSR will not be affected.

Attachment 7

2ND SUPPLEMENTAL JURISDICTIONAL DELINEATION MEMO

UltraSystems
environmental•management•planning

MEMO

DATE: Friday, July 07, 2023 (text revised August 8, 2023)

PROJECT #: OC Loop Segments O, P, and Q Coyote Creek Bikeway Project
2nd CE Revalidation - 7154

RE: 2nd Supplemental Jurisdictional Delineation Memo and Impacts to Jurisdictional Waters Mapbook for CE 2nd Revalidation, District 12-ORA, ATPL-5955(112)

The following attached mapbook shows updated impacts to jurisdictional waters for minor project design changes, additional easements, and additional temporary construction work areas.

Table 1 shows the proposed project changes will result in approximately 0.51 acre of new additional temporary impacts to waters of the U.S. (WOUS) (Ordinary High Water Mark [OHWM]). Table 2 shows the proposed project changes will result in approximately 0.74 acre of new additional temporary impacts to waters of the State (WOS) (California Department of Fish and Wildlife top-of-bank [CDFW TOB]). There would be no change to the type of permits required, which include a Clean Water Act (CWA) Section 404 Nationwide Permit, a Section 408 Authorization from the U.S. Army Corps of Engineers (USACE) to alter a "Civil Works" project, a CWA Section 401 Water Quality Certification, and a §1602 California Fish and Game Code (FGC) Lake or Streambed Alteration Agreement from the CDFW.

Table 1
NEW ADDITIONAL TEMPORARY IMPACTS TO WATERS OF THE U.S. (OHWM)

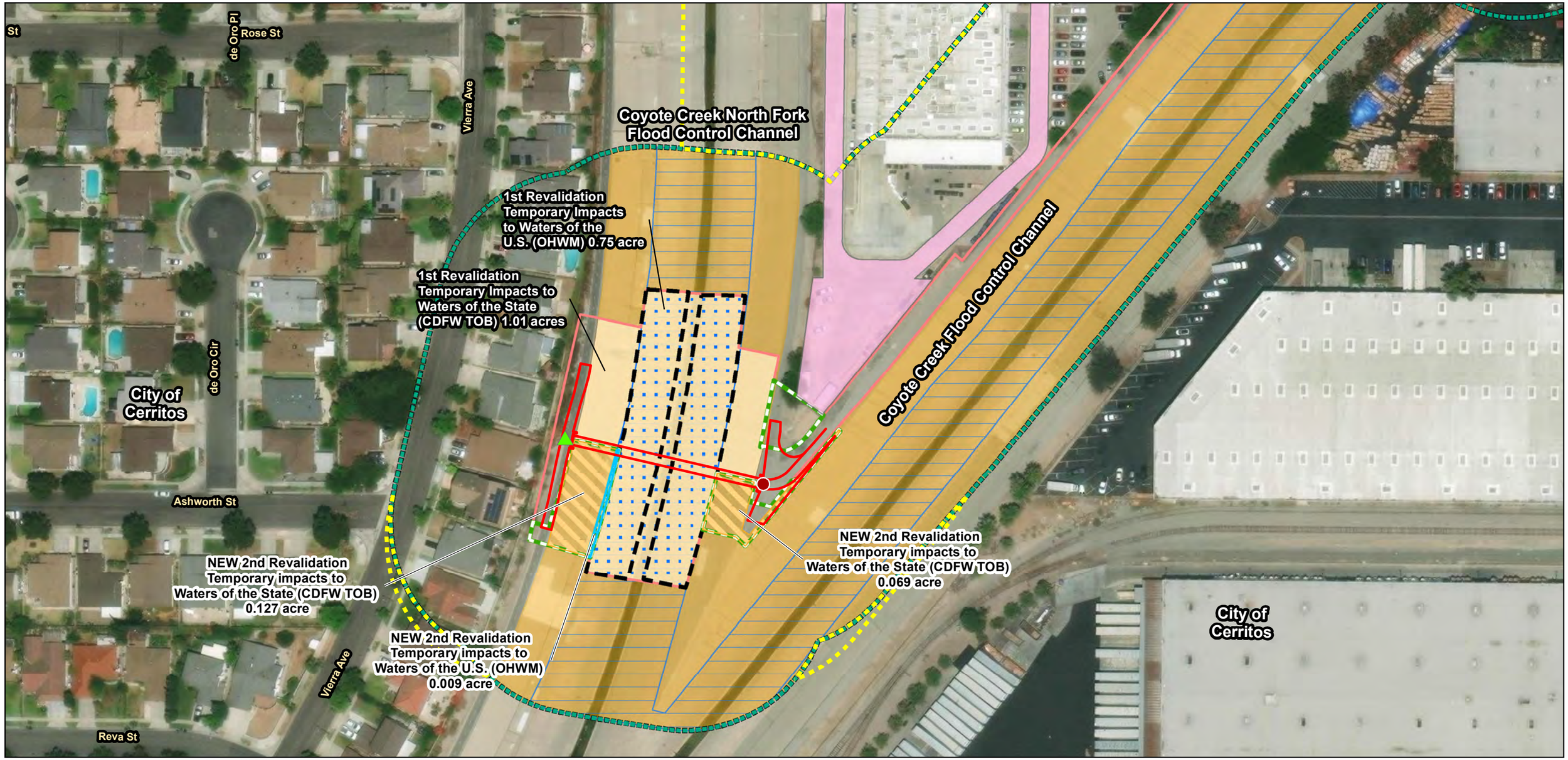
Project Segment	Acres of Temporary Impacts to WOUS (OHWM)
Segment O	0.019
Segment P	0.163
Segment Q	0.328
Total	**0.51**

Table 2
NEW ADDITIONAL TEMPORARY IMPACTS TO WATERS OF THE STATE (CDFW TOB)

Project Segment	Acres of Temporary Impacts to WOS (CDFW TOB)
Segment O	0.205
Segment P	0.197
Segment Q	0.333
Total	**0.735**

Corporate Office – Orange County
16431 Scientific Way
Irvine, CA 92618-4355

Telephone: 949.788.4900
Facsimile: 949.788.4901
Website: www.ultrasystems.com



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

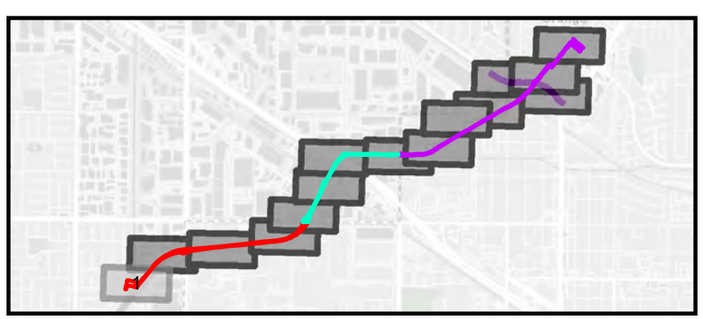
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

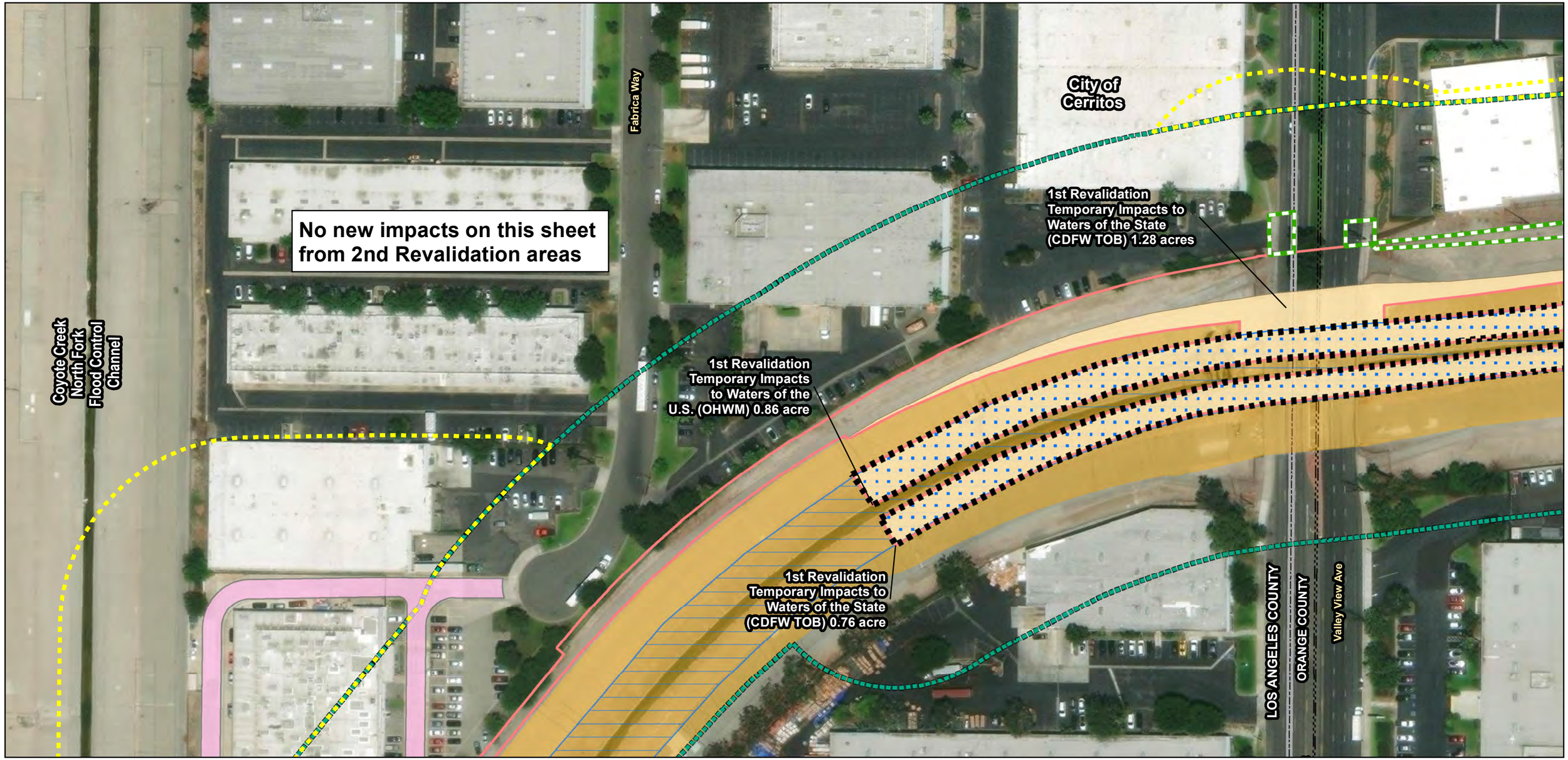
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Proposed Bikeway Alignment
- NEW Other Temp Work Areas
- NEW Temporary Construction Easement (TCE)
- Segment O (Original plus 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding Only
- NEW Proposed Location of Geotechnical Boring Only
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- 1st Revalidation Staging Area 1
- City Boundary
- County Boundary

OC Loop Segments O, P, and Q 2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 1 of 15

UltraSystems environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

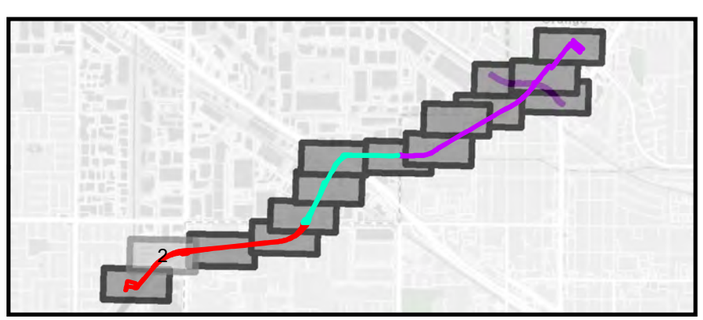
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Other Temp Work Areas
- NEW Temporary Construction Easement (TCE)
- Segment O (Original plus 1st Revalidation)
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- 1st Revalidation Staging Area 2
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 2 of 15

UltraSystems environmental • management • planning

City of
Buena Park

limpact calculations on Map 2
include this area

No new impacts on this sheet
from 2nd Revalidation areas

Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

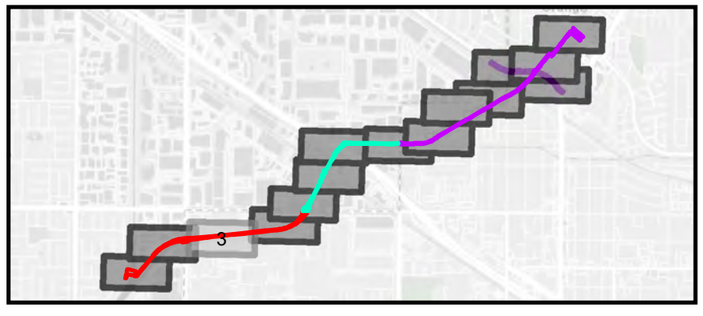
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

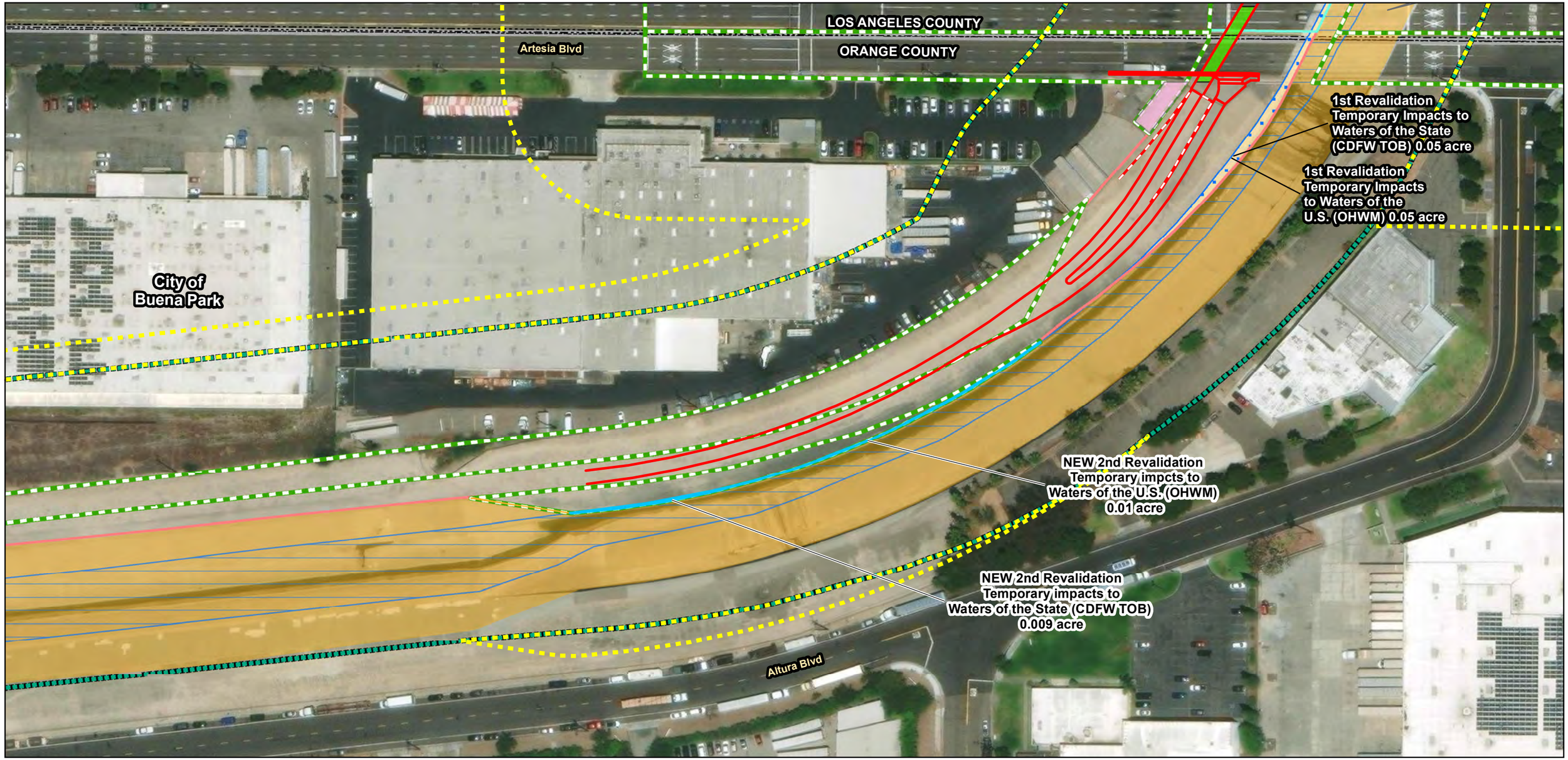
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Other Temp Work Areas
- Segment O (Original plus 1st Revalidation)
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- 1st Revalidation Staging Area 2
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to
Jurisdictional Waters
2nd Revalidation

Map 3 of 15

UltraSystems
environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

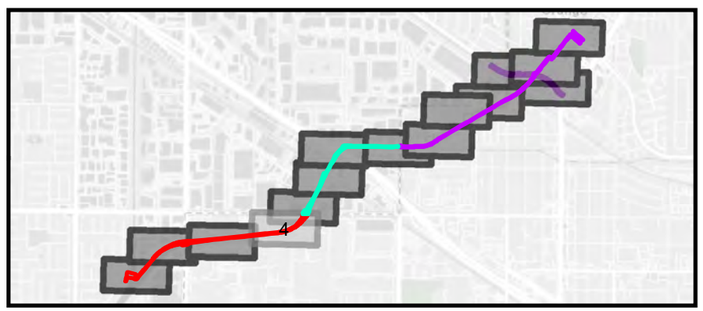
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

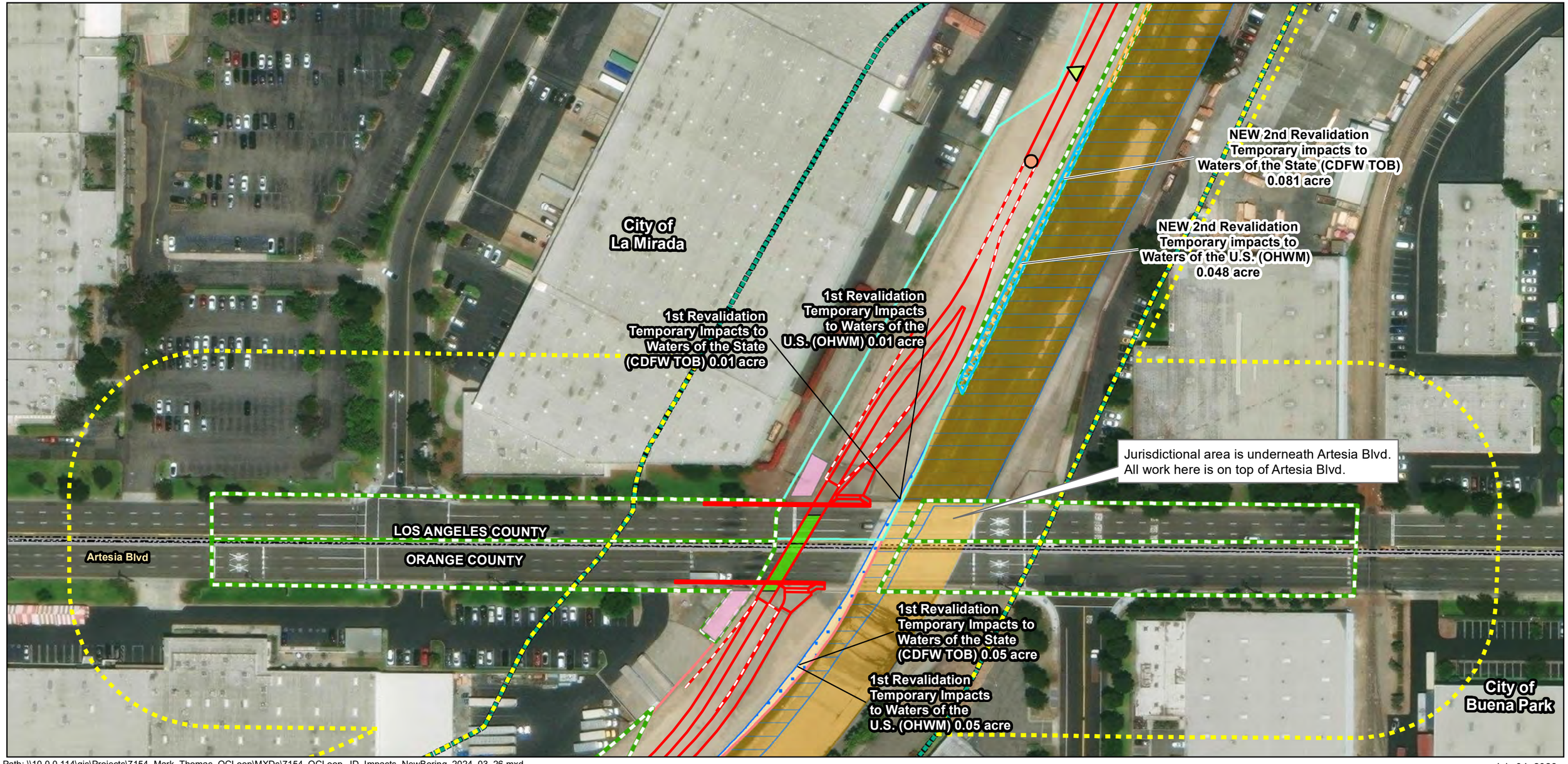
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment O (Original plus 1st Revalidation)
- Segment P (Original plus 1st Revalidation)
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters
2nd Revalidation

Map 4 of 15

UltraSystems
environmental • management • planning



Path: \\10.0.0.114\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_JD_Impacts_NewBoring_2024_03_26.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

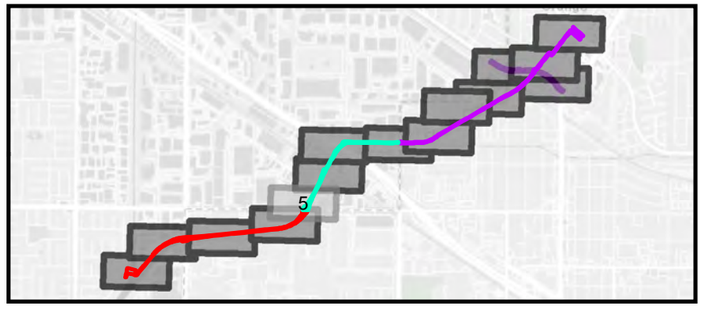
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

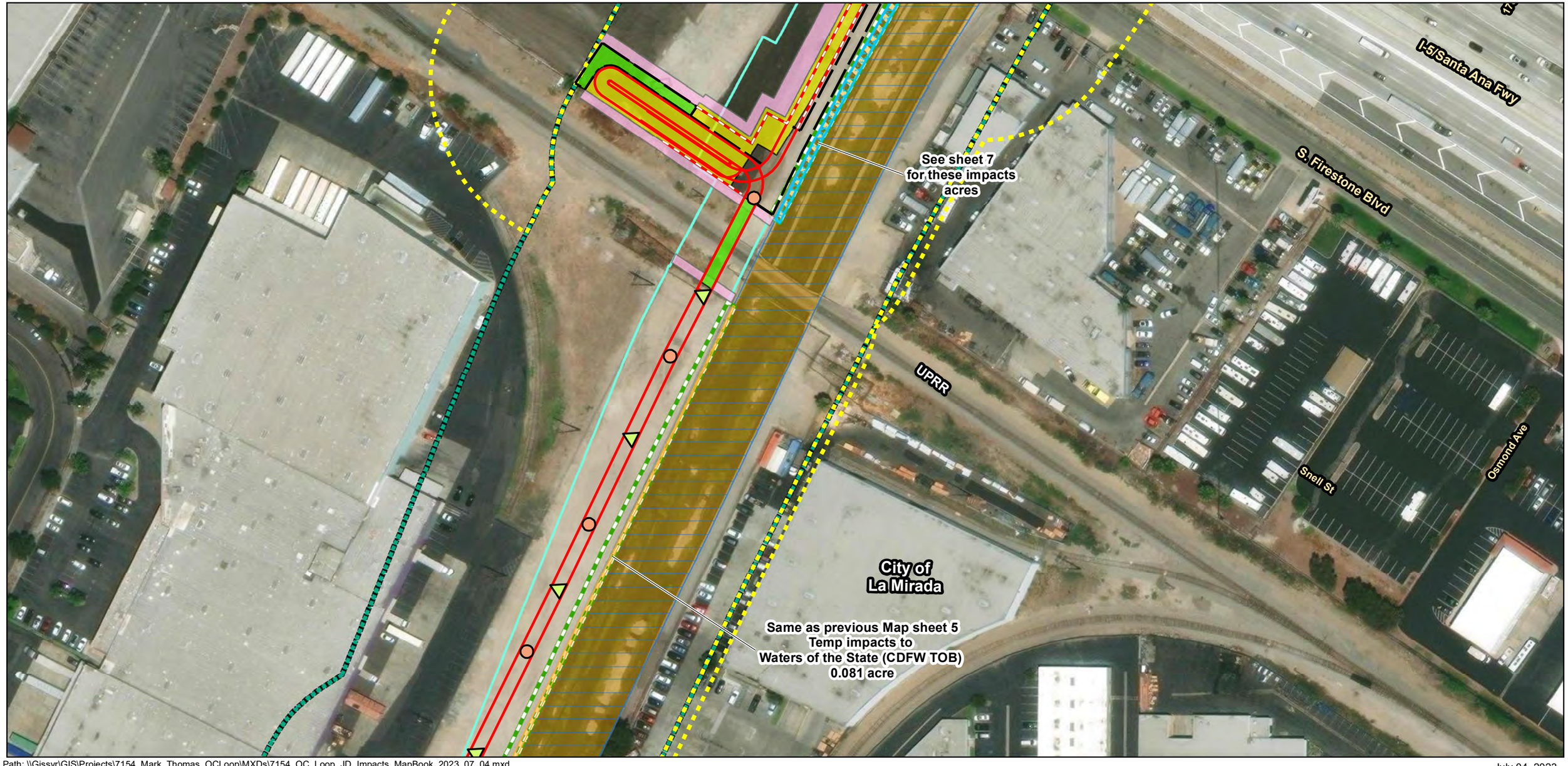
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment O (Original plus 1st Revalidation)
- Segment P (Original plus 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- City Boundary
- County Boundary

OC Loop Segments O, P, and Q 2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 5 of 15

UltraSystems environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

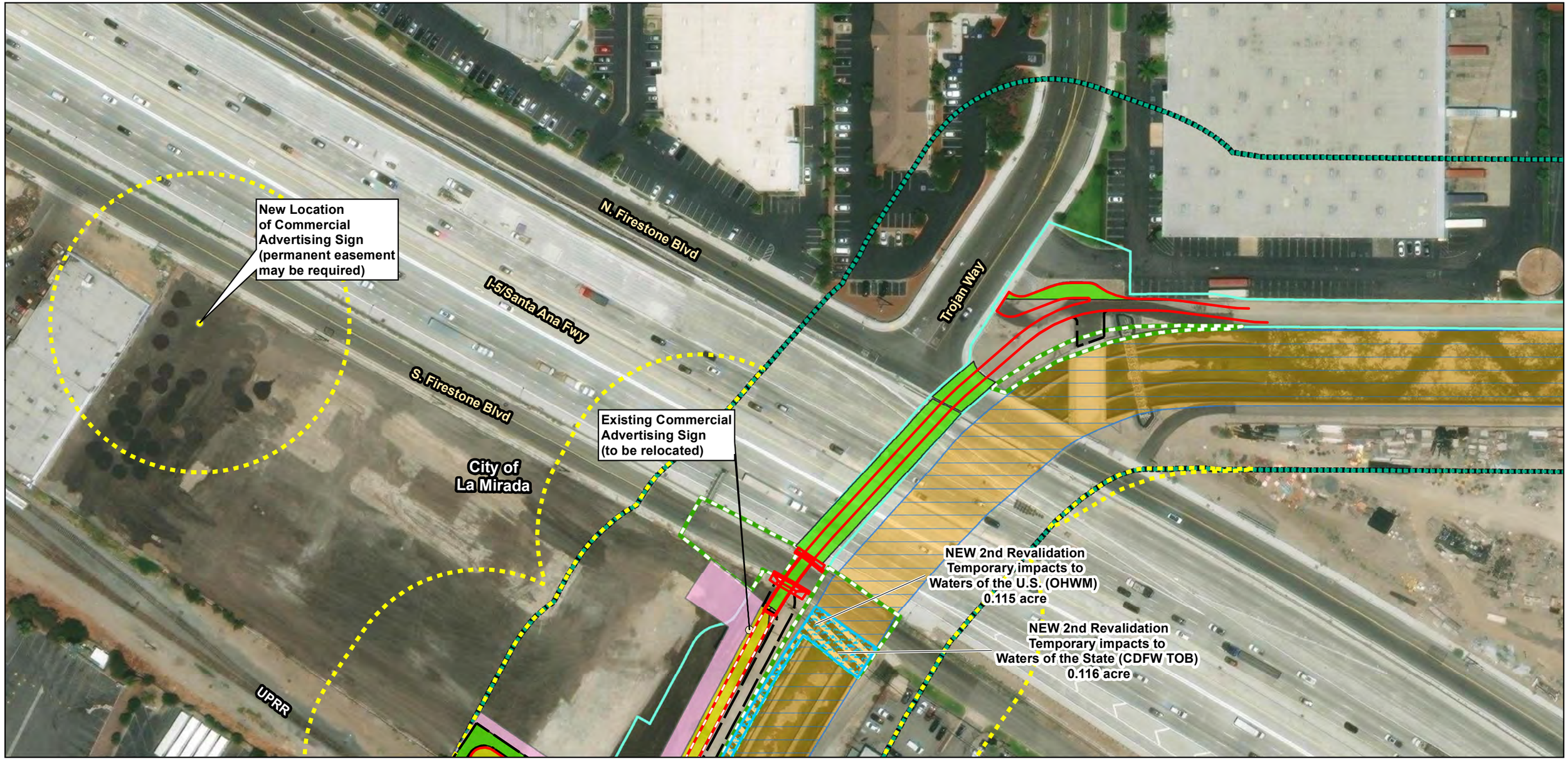
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- Segment P (Original plus 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- City Boundary
- County Boundary

OC Loop Segments O, P, and Q 2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 6 of 15

UltraSystems environmental • management • planning



Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

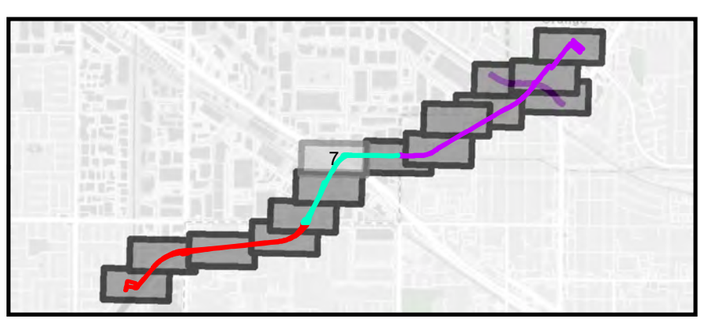
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

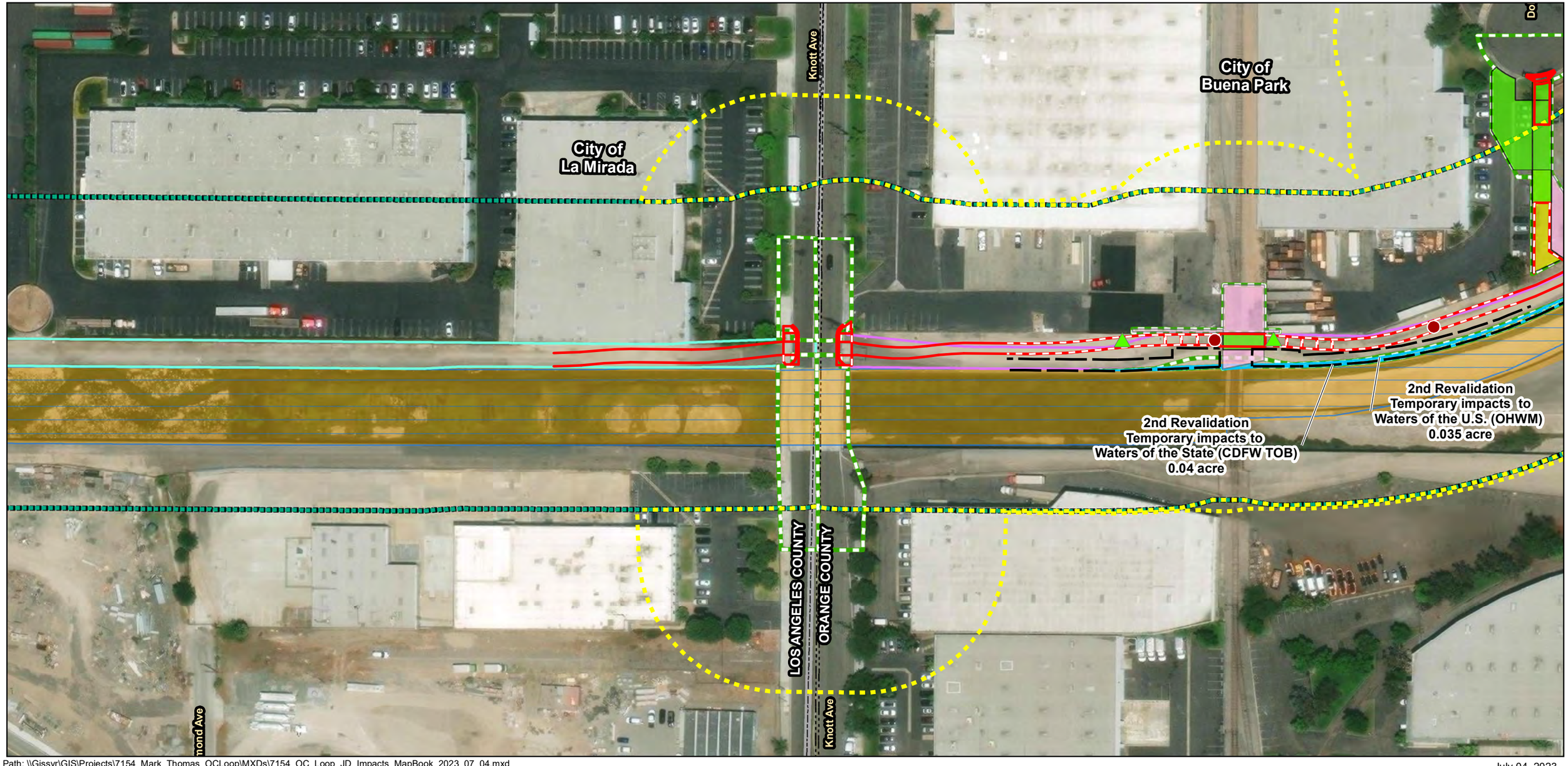
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- Segment P (Original plus 1st Revalidation)
- Existing Commercial Advertising Sign (to be relocated)
- New Location of Commercial Advertising Sign (permanent easement may be required)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to
Jurisdictional Waters
2nd Revalidation

Map 7 of 15

UltraSystems
environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

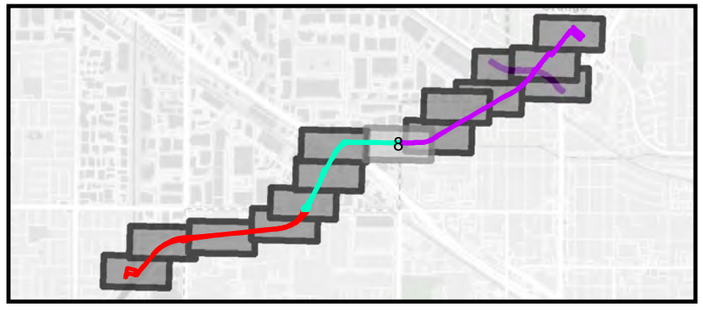
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

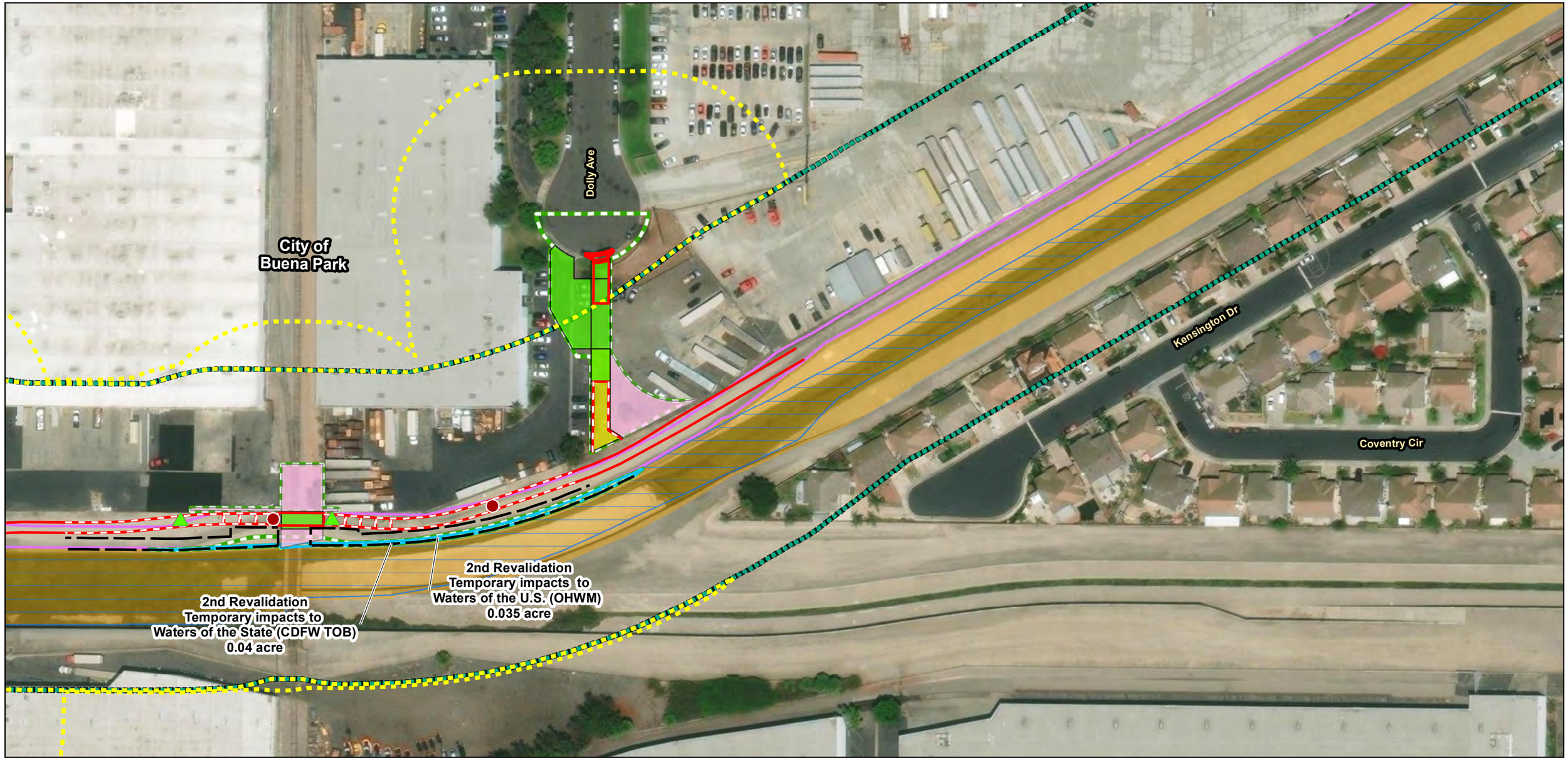
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- Segment P (Original plus 1st Revalidation)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding Only
- NEW Proposed Location of Geotechnical Boring Only
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 8 of 15

UltraSystems environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

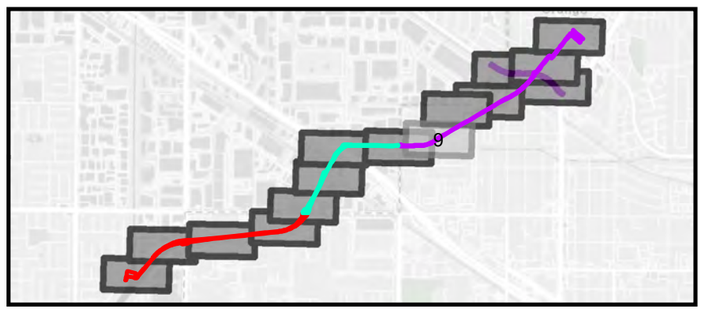
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

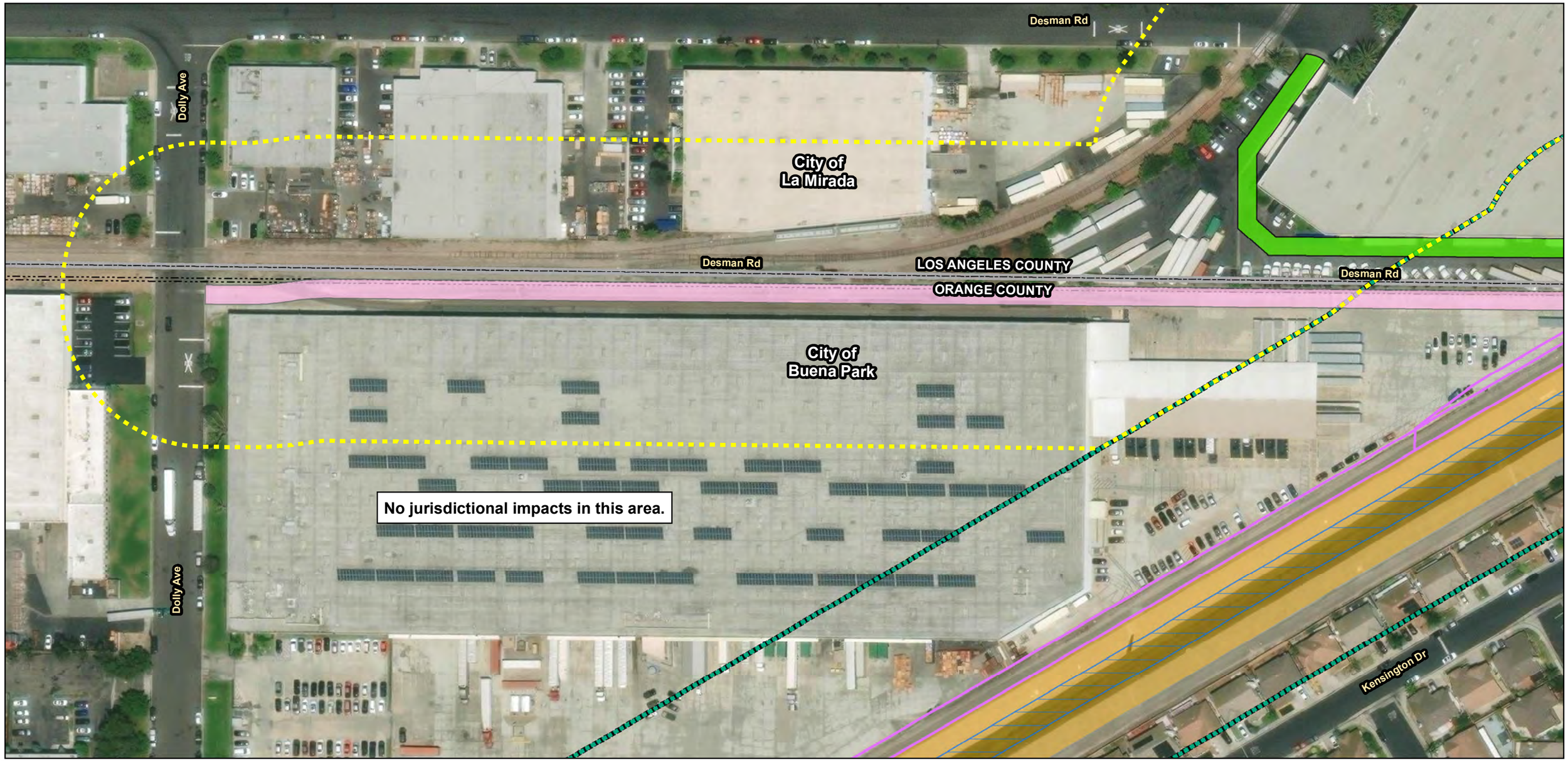
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding Only
- NEW Proposed Location of Geotechnical Boring Only
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to
Jurisdictional Waters
2nd Revalidation

Map 9 of 15

UltraSystems
environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

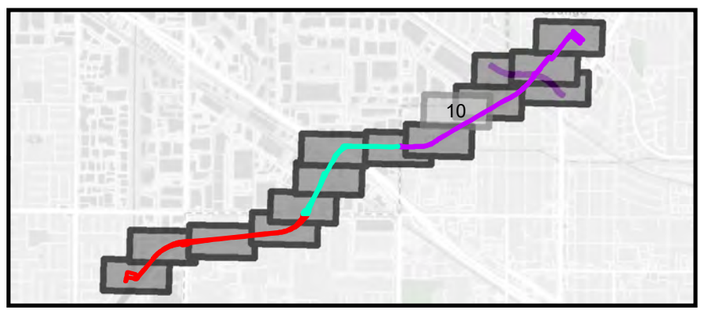
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 10 of 15

UltraSystems
environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

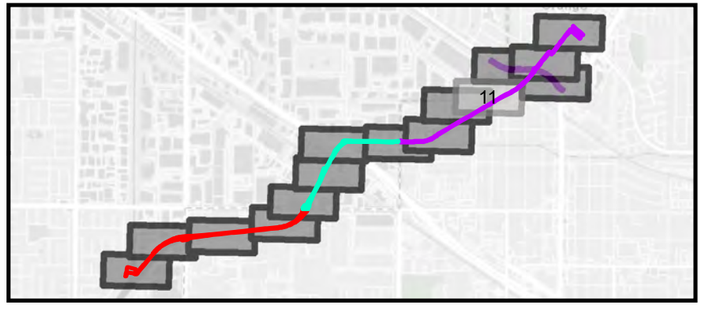
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

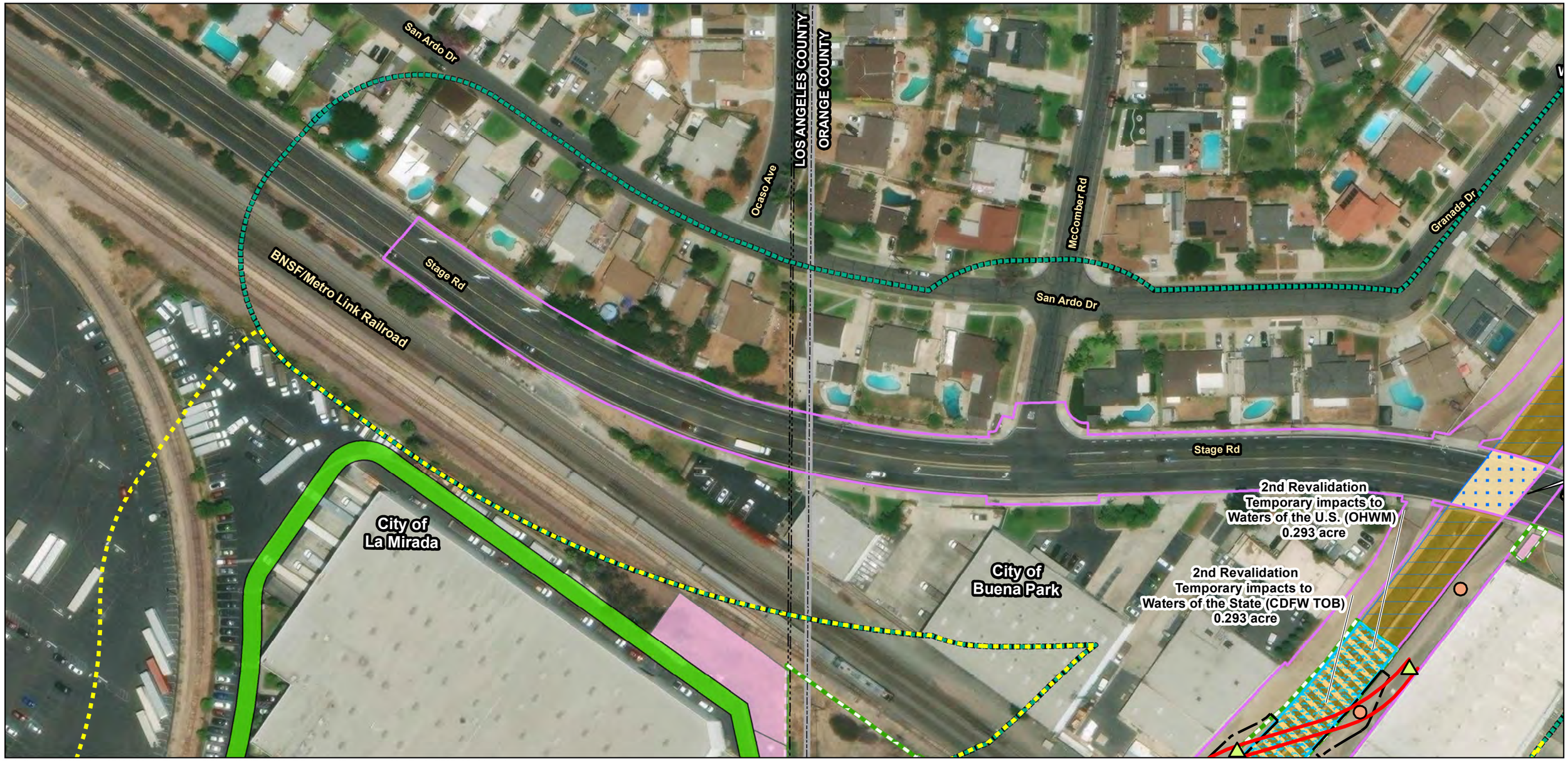
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- City Boundary
- County Boundary

OC Loop Segments O, P, and Q 2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 11 of 15

UltraSystems environmental • management • planning



Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

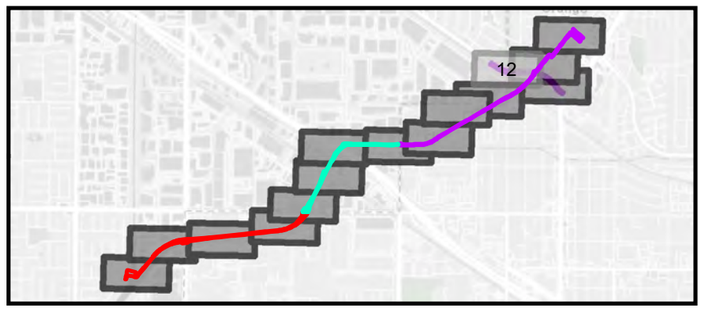
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to
Jurisdictional Waters
2nd Revalidation

Map 12 of 15

UltraSystems
environmental • management • planning

Jurisdictional area is underneath Stage Rd.
All work here is on Stage Rd.

Stage Rd

2nd Revalidation
Temporary impacts to
Waters of the U.S. (OHWM)
0.293 acre

2nd Revalidation
Temporary impacts to
Waters of the State (CDFW TOB)
0.293 acre

Stage Rd

City of
Buena Park

Dodds Ave

State Rte 39/Beach Blvd

BNSF/Metro Link Railroad

Coyote Creek Ct

City of

Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

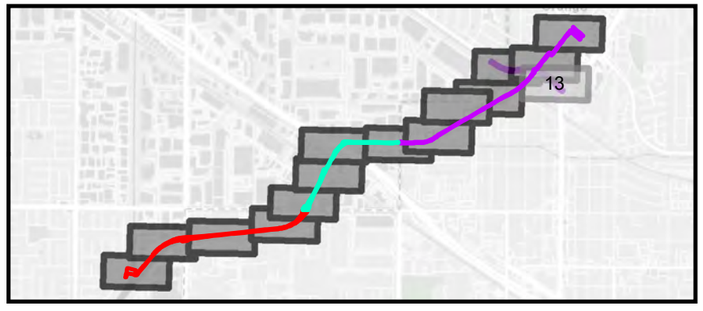
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 13 of 15

UltraSystems
environmental • management • planning

Original/Old alignmnet
Temporary Impacts to
Waters of the U.S. (OHWM)
0.014 acre
Original/Old alignment
Temporary Impacts to
Waters of the State (CDFW TOB)
0.014 acre

McComber Rd

Granada Dr

San Ardo Dr

Stage Rd

Jurisdictional area is underneath Stage Rd.
All work here is on Stage Rd.

Stage Rd

2nd Revalidation
Temporary impacts to
Waters of the U.S. (OHWM)
0.293 acre

City of
Buena Park

2nd Revalidation
Temporary impacts to
Waters of the State (CDFW TOB)
0.293 acre

Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

July 04, 2023

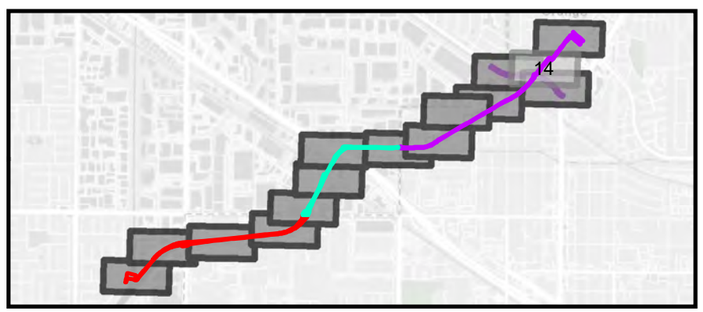
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to
Jurisdictional Waters
2nd Revalidation

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

July 04, 2023

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 15 of 15

UltraSystems
environmental • management • planning

Attachment 8

2nd SUPPLEMENTAL NATURAL ENVIRONMENT STUDY (MINIMAL IMPACTS) REPORT

OC LOOP SEGMENTS O, P, & Q COYOTE CREEK BIKEWAY PROJECT
2ND SUPPLEMENTAL
NATURAL ENVIRONMENT STUDY REPORT
(MINIMAL IMPACTS)

CITIES OF CERRITOS, LA MIRADA AND BUENA PARK
ORANGE AND LOS ANGELES COUNTY, CALIFORNIA
District 12-ORA

ATPL-5955(112)

August 2024 - for 2nd CE Revalidation

STATE OF CALIFORNIA
Department of Transportation
Orange County, Department of Public Works

Prepared By: Billye J. Breckenridge Date: August 22, 2024
Project Manager
Original Approved Report Prepared By: Hugo Flores, Staff Biologist, September 2020
(949) 788-4900
UltraSystems Environmental, Inc.
16431 Scientific Way, Irvine, CA 92618
Consultant

Approved By: Lisa Sato Date: 9/6/24
District Biologist
(949) 774-0736
Caltrans District 12
1750 E 4th St #100, Santa Ana, CA 92705

Approved By: for Kedest Ketsela Date: 9/10/24
Senior Environmental Planner
(657)328-6139
Caltrans District 12

This document is available in alternative formats. For information, please call (213) 897-9797 or use California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

TABLE OF CONTENTS

List Of Acronyms And Abbreviations iii

1.0 Introduction 5
- 1.1 Project History 5
- 1.2 Project Location 5
- 1.3 Project Purpose and Need 5
- 1.4 Project Description 6

2.0 Study Methods 9
- 2.1 Regulatory Requirements 10
- 2.2 Studies Required 19
- 2.3 Agency Coordination and Professional Contacts 20
- 2.4 Limitations That May Influence Results 20

3.0 Results: Environmental Setting 22
- 3.1 Description of the Existing Biological and Physical Conditions 22
- 3.2 Physical Conditions in the Study Area 22

4.0 Results: Biological Resources, Discussion of Impacts and Mitigation 25
- 4.1 Land Cover Types and Natural Communities within the BSA 25
- 4.2 Potential Impacts to Protected Trees 25
- 4.3 Potential Impacts to Special-Status Plant Species 25
- 4.4 Potential Impacts to Special-Status Wildlife 26
- 4.5 Potential Impacts to Waters of the U.S. and State 30
- 4.6 Potential Impacts to Wildlife Corridors 31

5.0 Conclusions and Regulatory Determination 32
- 5.1 Federal Endangered Species Act Consultation Summary 32
- 5.2 Wetlands and Other Waters Coordination Summary 32
- 5.3 Invasive Species 34
- 5.4 Migratory Bird Treaty Act 34

6.0 References 35

APPENDICES

Appendix A Figures

- Figure 1 - Project Vicinity
- Figure 2 - Project Location/USGS Topographic Map
- Figure 3 - Project Boundary and Biological Study Area (BSA) 2nd Revalidation
- Figure 4 – USDA Soils 2nd Revalidation
- Figure 5 – Land Cover Types 2nd Revalidation
- Figure 6 - Bat Colony Location 2nd Revalidation

Appendix B Updated Project Plans

Appendix C IPaC Species List (August 2024)

Appendix D Pages from Wildlife Special-Status SOP Table

Appendix E Jurisdictional Delineation Supplemental Memo

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Term
Agreement	Lake or Streambed Agreement
BEP	Bat Exclusion Plan
BGEPA	Bald and Golden Eagle Protection Act
BIOS	Biogeographic Information and Observation System
BMP	Best Management Practice(s)
BNSF	Burlington Northern Santa Fe Railway
BSA	Biological Study Area
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CRAM	California Rapid Assessment Method
CRPR	California Rare Plant Rank
CWA	Clean Water Act
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmental Sensitive Area
FESA	Federal Endangered Species Act
FGC	(California) Fish and Game Code
GIS	Geographic Information System
HU	Hydrologic Unit
IPaC	Information for Planning and Consultation
I-5	Interstate 5
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
MCV2	Manual of California Vegetation Online (Second Edition)
NEPA	National Environmental Policy Act
NES (MI)	Natural Environment Study (Minimal Impacts)
NOAA	National Oceanic and Atmospheric Administration

Acronym/Abbreviation	Term
NRCS	National Resources Conservation Service
NWI	National Wetland Inventory
NWP	Nationwide Permit Program
OC	Orange County
OCPW	Orange County Public Works
OCTA	Orange County Transit Authority
OHWM	ordinary high-water mark
PCN	Preconstruction Notification
RCB	reinforced concrete box
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
RWQCBs	Regional Water Quality Control Boards
SEA	Significant Ecological Area
SWRCB	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
U.S.	United States
UPRR	Union Pacific Railroad
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
WEAP	Worker Environmental Awareness Program
WQC	Water Quality Certification
WQMP	Water Quality Management Plan
§	section
§§	sections

1

1.0 Introduction

1.1 Project History

This document is the 2nd Supplemental Natural Environment Study (Minimal Impacts) (NES[MI]) to the original *OC Loop Segments O, P, & Q Coyote Bikeway Project Natural Environment Study (Minimal Impacts), Cities of Cerritos, La Mirada, and Buena Park, Orange and Los Angeles County, California, District 12-ORA, ATPL-5955(112)*, dated September 2020 and approved by Caltrans October 15, 2020 (Original Report).

Subsequently, changes to the proposed project required the First NEPA Categorical Exclusion (CE) Revalidation, for which a Supplemental NES(MI) Memo was prepared with updated maps. The First CE Revalidation Package was approved on October 6, 2021.

Since then, the Orange County Department of Public Works has made further modifications to the project plans in response to technical issues encountered in the design process or raised by the Los Angeles District of the Army Corps of Engineers. The bikeway construction plans have remained essentially the same over time and only the current design project refinements are discussed in this document.

1.2 Project Location

OC Loop Segments O, P, and Q Coyote Creek Bikeway Project ("proposed project" or "project") site goes through the City of La Mirada, City of Buena Park, and the City of Cerritos (see **Figure 1**, *Project Vicinity and* **Figure 2**, *Project* included in **Appendix A**, *Figures*) United States Geological Survey (USGS) 7.5-Minute topographic map in Township 3 South, Range 11 West, Section 26,27,33 and 34 (see **Figure 2**, in **Appendix A**, *Figures*).

1.3 Project Purpose and Need

The project purpose and need has not changed since the original document. As discussed in the original document, once constructed, the proposed project would close an existing bikeway gap along the OC Loop with a Class I bikeway physically separated from vehicular traffic. As an alternative mode of transportation, the proposed project would also increase the use of active transportation travel modes, enhance safety and mobility for non-motorized users, advance efforts to achieve greenhouse gas reduction goals, improve access and maintenance to the flood control channel, and enhance public health. In addition, the proposed project is a safety and mobility enhancement for the County of Orange, and is included in the 2008 Coyote Creek Bikeway Master Plan (Rivers and Mountains Conservancy and Trails4All), 2009 Orange County Transit Authority (OCTA) Commuter Bikeway Strategic Plan, 2012 OCTA/County of Orange Fourth District Bikeways Strategy Report, 2014 County of Orange General Plan Transportation Element (as part of the Orange County Seven-Year Plan), and the 2015 OC Loop Gap Feasibility Study (OC Parks).

The proposed project has the following objectives.

- To further establish the OC Loop as a significant regional recreational and alternative transportation facility resource.

- To facilitate increases in the public's use of active transportation travel modes.

- To enhance the safety and mobility for non-motorized users.
- To advance efforts to achieve greenhouse gas reduction goals.
- To improve the maintenance of, and access to, the flood control channel.
- To enhance public health via the facilitation of increased public use of active transportation travel modes.
- To serve as a viable contributor to County policies and physical improvements designed to promote safety and mobility enhancement.
- To accurately serve its stated purpose in various adopted County/OCTA policy and planning documents including the 2008 Coyote Creek Bikeway Master Plan (Rivers and Mountains Conservancy and Trails4All), 2009 OCTA Commuter Bikeway Strategic Plan, 2012 OCTA/County of Orange Fourth District Bikeways Strategy Report, 2014 County of Orange General Plan, and the 2015 OC Loop Gap Feasibility Study.

1.4 Project Description

Due to public comments and discussions with the railroads and the U.S. Army Corps of Engineers (USACE), proposed project changes have occurred. In summary, the new proposed changes include design and alignment changes at various locations, identification of geotechnical borings/testing locations, new proposed temporary and permanent easements, and new temporary construction staging/work areas. See **Appendix B** for design changes and new easements plan pages.

Design changes include:

- Location and height of North Fork Bridge in Cerritos;
- Realignment of switchback on Caltrans property north of Union Pacific Railroad (UPRR);
- Realignment of Trojan Way driveway;
- Slight realignment of bike path just east and west of the Burlington Northern Santa Fe (BNSF) Railway Lead Undercrossing; and
- Realignment of bike path and truss bridge across the BNSF/Metrolink/Coyote Creek crossing.

New additional easements include: Temporary Construction Easements (TCEs), Permanent Aerial Easement (PAE), Permanent Subsurface Easement (PSUBE), and Permanent Maintenance Easements (PME).

Borings/Corings locations identified. Earthwork and borings at Los Angeles County Flood Control District (LACFCD) Parcel and four additional bridge/tunnel locations. Excavations up to 18.5 feet in depth were evaluated for the Paleo and archeological reports in the original documents but design soils sample borings and column corings are now necessary to be done to deeper depths for the bridge column locations. Excavation for small diameter (8-inch) soils borings are expected to reach as much as 120 feet in depth and actual bridge column corings may reach 100 feet in depth with diameters ranging from 24 inches to 84 inches which exceeds excavation depths noted in the original environmental documents. See **Appendix B** for the locations of proposed geotechnical borings and access.

Additional temporary work areas were identified, including minor public right of way expansions for associated work areas, shallow bioswales, traffic control and striping. This also includes three additional in-channel work areas, one of which will be used for a crane to erect the truss bridge over Coyote Creek just north of the BNSF/Metrolink.

Below is a list of changes by Segment.

Segment O

Design Changes

- Cerritos Bridge: Height - 6 feet to 12 feet and deck height increased 18 inches. Cerritos Bridge Lateral Relocation 25 feet south
- Block wall(s) nine (9) feet in height on LACFCD property installed adjacent to existing back wall(s).

Geotechnical

- One Cone Penetrometer Test (CPT) Sounding Only at North Fork for Cerritos Bridge
- One Geotechnical Boring Only at North Fork for Cerritos Bridge

Easements

- Cerritos Bridge TCE
- Artesia Blvd (south of) TCE

Additional temporary work areas

- Channel junction corner work area
- Valley View Blvd. crossing north side
- LACFCD r/w north side bioswale
- Artesia Blvd crossing

Segment P

Design Changes

- Realignment of switchback on Caltrans property just north of UPRR.
- Likely Billboard Relocation at S. Firestone Blvd and consequent permanent license or permanent easement relocation .
- Realignment of Trojan Way driveway

Geotechnical

- Four Cone Penetrometer Test (CPT) Sounding/Bridge Column (on new bikeway alignment between Artesia and UPRR)
- Five Geotechnical Boring/Bridge Column (on new bikeway alignment from north of Artesia to just north of UPRR)

Easements

- Artesia Blvd (north of) TCE
- Caltrans Property TCE's
- Permanent Aerial Easement (PAE): UPRR Industry Track
- Permanent Subsurface Easement (PSUBE): Bikeway Under I-5 Frwy
- Permanent Maintenance Easements (PME): Caltrans Property

Additional temporary work areas

- Artesia Blvd crossing

- LACFCD r/w south side work area
- Firestone Blvd crossing
- Knott Ave. crossing

Segment Q

Design Changes

- Reorienting the southern approach to the bridge over the UPRR in the City of La Mirada from its original course parallel to the bikeway to a new course perpendicular to the latter, extending further into an adjacent vacant property under Caltrans ownership;
- Slight reorientation of the BNSF/Metrolink/Coyote Creek Channel overcrossing.
- La Mirada Blvd. Crossing Median Improvements - New Fence and fill-in the median gap
- La Mirada Blvd. Monument 2' wide x 4' tall (south side) – Relocate
- La Mirada Blvd. SCE sidewalk Cabinet (north and south side) – Relocate

Geotechnical

- Two Cone Penetrometer Test (CPT) Sounding Only (on new bikeway alignment near BNSF railroad lead)
- Two Geotechnical Boring Only (on new bikeway alignment near BNSF railroad lead)
- Four Cone Penetrometer Test (CPT) Sounding/Bridge Columns
    - (three on new bikeway and truss bridge alignment of the BNSF/Metrolink/Coyote Creek crossing, south of Stage Road)
    - (one (on truss bridge alignment north of Stage Road)
- Five Geotechnical Boring/Bridge Columns
    - (one on new bikeway and truss bridge alignment of the BNSF/Metrolink/Coyote Creek crossing, south of Stage Road)
    - (one on truss bridge alignment north of Stage Road)

Easements

- BNSF Undercrossing TCEs
- TCE (near Dolly Rd)
- Amberwood Apartments TCE expansion
- TCE in APN 7001-020-039
- Erect Bridge Structures - In-Channel Work at BNSF Metrolink Corridor
- La Mirada Blvd. Sidewalk TCE
- La Mirada Blvd. Permanent Sidewalk Easement (PSE)
- Permanent Aerial Easement (PAE) at BNSF Corridor
- Permanent Subsurface Easement (PSUBE) at BNSF Industry Track
- Permanent Maintenance Easements (PME):
    - BNSF Undercrossing
    - Maintenance Access (two Dolly Road Options)
    - APN 7001-020-039

Additional temporary work areas

- Knott Ave. crossing
- LACFCD r/w triangular segment
- LACFCD channel bottom cross channel bridge erection
- La Mirada Blvd crossing

2.0 Study Methods

Information from the original report was used for this section except where information was required to be updated.

The study methods for this supplemental analysis included the identification and characterization of biological resources, including vegetation community types and alliances, and special-status plant and animal species that are known to occur or have potential to occur in the project area and the larger BSA. The project area (footprint of disturbance) is defined as the area directly affected by the proposed construction (see **Figure 3***, Project Boundary and Biological Study Area (BSA)*, located in **Appendix A**). The BSA was defined as a zone approximately 150 feet around the boundary of the project area; the BSA encompass a sufficient area to allow biologists to compile information regarding biological resources that could potentially be affected by site preparation activities and construction. The assessed areas of the BSA include the overall project site, as presented in **Figure 3** (located in **Appendix A**), with the exception of areas that were topographically inaccessible or to which biologists did not have right-of-access. Should the project alignment change prior to construction, it is expected, given the nature of the proposed project, that the revised project footprint would still be within the limits of the BSA.

This section includes information from the original report.

"Special-status," as used in this report, refers to species that are:

- Listed, proposed for listing, or candidates for listing as threatened or endangered under the Federal Endangered Species Act (FESA) (50 Code of Federal Regulations [CFR] Part 17.12 [listed plants], 50 CFR Part 17.11 [listed animals], 67 Federal Register [FR] 40657 [candidate species], Birds of Conservation Concern (BCC), and various notices in the FR [proposed species]) (USFWS, 2020a);

- Listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (CNDDB, 2020);

- Identified by the CDFW as fully protected species, including fish and wildlife that do not have State or federal threatened or endangered status but may still be threatened with extinction (CDFW, 2020c);

- California Species of Special Concern: vertebrate species that have been designated as "species of special concern" or "Special Animals" by the CDFW because declining population levels, limited range, and/or continuing threats have made them vulnerable to extinction (CDFW, 2019; CDFW, 2020d);

- Included in the California Native Plant Society (CNPS) Rare Plant Inventory (CNPS, 2020a); or

- Otherwise defined as rare, threatened, or endangered under the California Environmental Quality Act (CEQA).

2.1 Regulatory Requirements

2.1.1 Federal Statutes, Regulations, and Executive Orders

2.1.1.1 National Environmental Policy Act

The National Environmental Policy Act (NEPA) of 1969 (42 United States Code [U.S.C.] § 4321) requires federal agencies carrying out, funding, or permitting projects, or implementing any other major federal action that significantly adversely affects the quality of the human environment to prepare a detailed environmental impact analysis for the major federal action. The analysis, known as the Environmental Impact Statement or an Environmental Assessment, must address the adverse environmental impacts of the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, alternatives to the proposed action, the relationship between local short-term uses of the human environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

2.1.1.2 Federal Endangered Species Act

The FESA of 1973 (Title 16, U.S.C. §§ 1531-1543), as amended, designates and provides for protection of listed threatened and endangered plant and animal species, and their Critical Habitat. The USFWS, in the Department of the Interior, and National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service, in the Department of Commerce, share responsibility for administration of the ESA. These responsibilities include listing and delisting species, designating Critical Habitat, and formulating recovery plans. The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of National Marine Fisheries Service are mainly marine wildlife.

Critical Habitat

The ESA of 1973, as amended (16 U.S.C. 1531 et seq.) states that the purposes of the Act are to provide a means to conserve the ecosystems upon which listed species depend. In passing the Act, Congress viewed habitat loss as a significant factor contributing to species endangerment. The present or threatened destruction, modification, or curtailment of a species' habitat or range is included in the Act as one of the factors on which to base a determination of threatened or endangered species (USFWS, 2016).

The designation of Critical Habitat provides a significant regulatory protection in that federal agencies are required to ensure, in consultation with the Services under § 7(a)(2) of the Act, that their actions are not likely to destroy or adversely modify Critical Habitat. This benefit is especially valuable when, for example, a species presence or habitats are ephemeral in nature, species presence is difficult to establish through surveys, or when protection of unoccupied habitat is essential for the conservation of the species (USFWS, 2016).

2.1.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (Title 16, U.S.C. §§ 703 - 712), as amended, includes provisions for protection of migratory birds, including basic prohibitions against any take not authorized by federal regulation. The administering agency for the above authority is the USFWS. The law contains no requirement to prove intent to violate any of its provisions. Wording in the MBTA

makes it clear that most actions that result in "take" or possession (permanent or temporary) of a protected species can be a violation of the act. The word "take" is defined as "pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect (including nests, eggs, and feathers)." The provisions of the MBTA are nearly absolute; "except as permitted by regulations" is the only exception.

2.1.1.4 Bald and Golden Eagle Protection Act

Bald eagles (*Haliaeetus leucocephalus*) were removed from the federal list of threatened and endangered species in 2007, and are no longer protected under the ESA. However, bald eagles remain protected under the Bald and Golden Eagle Protection Act (BGEPA) (Title 16, U.S.C. §§ 668-668c). The BGEPA was enacted in 1940 to protect bald eagles, and revised in 1962 to include golden eagles (*Aquila chrysaetos*) due to their declining populations. The agency administering this Act is the USFWS. The BGEPA prohibits anyone, without a permit issued by USFWS, from "taking" bald eagles or golden eagles, including their parts, nests, or eggs. The BGEPA defines take as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." Exceptions may be granted by USFWS for scientific or exhibition use, or for traditional and cultural use by Native Americans. However, no permits may be issued for import, export, or commercial activities involving eagles.

2.1.1.5 Federal Clean Water Act of 1977

The federal CWA (33 U.S.C. §§ 1251-1376) is an amendment to the Federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of dredged or fill into waters of the United States (waters of the U.S.) Several sections of this act pertain to regulating the discharge of dredge and fill, as well as pollutants, into wetlands.

§ 401 CWA specifies additional requirements for obtaining a water quality certification. § 401 CWA is administered by the U.S. Environmental Protection Agency (USEPA). The USEPA has occasionally ceded authority to individual states whose water quality regulations meet or exceed the federal regulations; thus, the USEPA has ceded authority to the State of California State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) for issuing Water Quality Certifications.

a. Through the § 401 Program, the SWRCB and its nine RWQCBs certify that an activity's discharge complies with federal (and state) water quality standards and ensures that there is no net loss of wetlands through impact avoidance, minimization, and mitigation. A Water Quality Certification (WQC) requires project owners or proponents to obtain a Water Quality Certification which requires their project to prevent the discharge or dredge and fill material in quantities that would violate federal water quality standards.

b. The SWRCB and its RWQCBs may, at their discretion, use the § 401 Water Quality Certification Program to also implement the California Porter-Cologne Water Quality Control Act (Porter-Cologne; see Section 2.1.2.7 of this document) since both § 401 and Porter-Cologne require that a proposed discharge will comply with water quality standards, which include numeric and narrative water quality objectives applicable to identified surface and ground waters in the State of California. These water quality objectives are designated in the Water Quality Control Plans (Basin Plans) that are prepared, updated, and implemented by each Regional Water Quality Control Boards (RWQCB).

The proposed project occurs in the jurisdictions of both the Santa Ana RWQCB (Region 8) and Los Angeles RWQCB (Region 4); therefore, the SWRCB would provide review and water quality certification services for this project

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the U.S. The United States Army Corps of Engineers (USACE) implementing regulations define "dredged material" as material that is excavated or dredged from waters of the U.S. The CWA implementing regulations define "fill material" as material placed in waters of the U.S. where the material has the impact of either replacing any portion of waters of the U.S. with dry land or changing the bottom elevation of any portion of a waters of the U.S. Examples include discharges of rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and materials used to create any structure or infrastructure for development projects in waters of the U.S.

a. No discharge of dredged or fill material may be permitted if there is a practicable alternative that would be less damaging to aquatic resources, so long as that alternative does not have other significant adverse environmental consequences [40 CFR § 230.10(a)]. Under 40 CFR § 230.10(a), a potential project alternative is "practicable" if it "is available and capable of being done after taking into consideration cost, existing technology and logistics in light of overall project purpose." These regulations are jointly administered and enforced by the USACE and the EPA.

b. Under the law, any project that discharges dredged or fill material (temporarily or permanently) into waters of the U.S., including wetlands, may require a § 404 permit. The § 404 permit may be a nationwide permit or an individual permit from the USACE pursuant to § 404 of the CWA. The USACE has established a series of nationwide permits that authorize certain activities in waters of the U.S. provided that a proposed activity can demonstrate compliance with standard terms and conditions. No activity is authorized under any nationwide permit that is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the ESA, or that will destroy or adversely modify the Critical Habitat of such species. If the conditions cannot be met, a regional or individual permit will be required.

The discharge of dredge or fill material into wetlands and other waters of the U.S. is subject to permitting under § 404 CWA, which is administered by the USACE. The USACE, Los Angeles District Office, would provide review and permitting services for this project.

2.1.1.6 Impaired Waters and Total Maximum Daily Loads

Section 303(d) of the Clean Water Act authorizes the USEPA to assist states, territories and authorized tribes in listing impaired waters and developing Total Maximum Daily Loads (TMDLs) for these waterbodies. A Total Maximum Daily Load (TMDL) is a number that represents the assimilative capacity of a receiving water to absorb a pollutant. The TMDL is the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources plus an allotment for natural background loading, and a margin of safety. (RWQCB, 2018).

Under CWA § 303(d), states are required to submit to the USEPA a list identifying waters within its boundaries not meeting water quality standards (impaired waters) and the water quality parameter (i.e., pollutant requirements) not being met [referred to as the 303(d) List]. States are also required to include a priority ranking of such waters, taking into account the severity of the pollution and the

impacted beneficial uses, for the development of TMDLs. The Water Quality Control Policy for Developing California's Clean Water Act § 303(d) List (Listing Policy) provides the requirements for developing the 303(d) List in California.

In addition to the 303(d) List, the CWA § 305(b) requires states to report to USEPA on the overall water quality conditions of their surface waters, not just those that are impaired (this is referred to as the 305(b) Report). Both Clean Water Act § 303(d) and § 305(b) requirements are being satisfied by the 2014 and 2016 California Integrated Report (RWQCB, 2018).

Consistent with Section 2 of the Listing Policy, the California 303(d) List is made up of Integrated Report Categories 4a, 4b, and 5. These categories contain water bodies that [4a] have a water segment where all of its 303(d) listings are being addressed; [4b] have a water segment where all of its 303(d) listings are being addressed by action(s) other than TMDL.

2.1.1.7 Rivers and Harbors Act

Section 14 of the Rivers and Harbors Act of 1899, as amended and codified at 33 USC 408 (Section 408), authorizes the Secretary of the Army, on the recommendation of the Chief of Engineers of the USACE, to grant permission for the alteration or occupation or use of a USACE civil works project if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the project. Public works projects include dams, basins, levees, channels, navigational channels, and any other local flood protection works constructed by the Corps. The Los Angeles District of the USACE will provide review and permitting services for this project.

2.1.1.8 Executive Order 11990 – Protection of Wetlands (May 24, 1977)

Executive Order (EO) 11990 provides for the protection of wetlands, as described under applicably current rule. The administering agency for the above authority is the USACE. If impacts to wetlands cannot be avoided, then all practicable measures to minimize harm to those wetlands must be included and documented in the final environmental document for the proposed project or activity (NARA, 1977).

2.1.1.9 Executive Order 13112 – Invasive Species (February 3, 1999)

This EO called upon executive departments and agencies to take steps to prevent the introduction and spread of invasive species, and to support efforts to eradicate and control invasive species that are established. EO 13112 also created a coordinating body - the Invasive Species Council, also referred to as the National Invasive Species Council - to oversee implementation of the order, encourage proactive planning and action, develop recommendations for international cooperation, and take other steps to improve the Federal response to invasive species (USFWS, 2020b).

Non-native flora and fauna can cause substantial changes to native ecosystems, upset native ecological balances, and have the potential to also cause economic harm. Roads and highways provide opportunities for the movement and spread of non-native, invasive species through an area, from the local to the national level.

2.1.2 State Statutes and Regulations

2.1.2.1 California Environmental Quality Act

The CEQA of 1970 (Public Resources Code §§ 21000-21178) and its implementing CEQA Guidelines (California Code of Regulations §§ 15000-15387), applies to discretionary projects proposed to be carried out by public agencies or private projects subject to public agency approval. CEQA defines projects broadly to include an activity which may cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment, and is an activity directly undertaken by a public agency, an activity undertaken by a person that is supported by a public agency, or an activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement.

2.1.2.2 California Endangered Species Act of 1984 (California Fish and Game Code §§ 2050 2098)

The CESA of 1984 is outlined in California Fish and Game Codes (FGC) §§ 2050 – 2098, and includes provisions for the protection and management of wildlife species listed by the State of California as endangered or threatened, or designated as candidates for such listings. This act declares "it is the policy of the state that state agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy" (§ 2053).

Plants of California declared to be endangered, threatened, or rare are listed under 14 California Code of Regulations (CCR) § 670.2. Wildlife of California declared to be endangered, threatened, or rare (also referred to as "sensitive" wildlife species) are listed under 14 CCR § 670.5. The administering agency for the above Act is the CDFW.

2.1.2.3 Native Plant Protection Act of 1977 (California Fish and Game Code § 1900 et. seq.)

The Native Plant Protection Act prohibits importation of rare and endangered plants into California, take of rare or endangered plants, and sale of rare and endangered plants. The CESA defers to the California Native Plant Protection Act (CNPPA), which ensures that plant species listed by the State as endangered, threatened, or rare ("sensitive" plant species) are protected when state agencies are involved in projects or activities subject to CEQA. In this instance, plants listed as rare under the CNPPA are not protected under CESA, but rather under CEQA.

2.1.2.4 California Fish and Game Code § 3503 and § 3503.5

These codes provide for the protection of birds by declaring, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto" (§ 3503), and that, "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto" (§ 3503.5).

2.1.2.5 California Fish and Game Code §§ 1930 – 1940

These code sections provide for the Significant Natural Areas program and database. The administering agency for the above authority is the CDFW.

2.1.2.6 California Fish and Game Code § 4150

Bats are considered non-game mammals and are afforded protection by state law from take and/or harassment (Fish & G. Code, § 4150; Cal. Code of Regs, § 251.1). Several bat species are considered California Species of Special Concern (SSC) and meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15065). Take of SSC could require a mandatory finding of significance by the Lead Agency (CEQA Guidelines, § 15065).

2.1.2.7 California Fish and Game Code §§ 1600 – 1616 Lake or Streambed Alteration

Section § 1600 - § 1616 FGC protect the natural flow, bed, channel, and bank of any river, stream, or lake designated by the CDFW in which there is at any time an existing fish or wildlife resource, or from which ecosystem these resources derive benefit. General project plans must be submitted to CDFW in sufficient detail to indicate the nature of a project for construction, if the project would: divert, obstruct, or change a streambed; use material from the streambed; result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a stream.

Any person or entity whose project or activity may result in any of the above must first notify CDFW in writing. CDFW will review the project or activity and decide if may continue or if they must issue an Agreement, which would stipulate mitigation measures for the protection of the aquatic resource in question.

2.1.2.8 Porter-Cologne Water Quality Control Act (as amended)

The Porter-Cologne Water Quality Control Act (Porter-Cologne) defines "water quality objectives" as the allowable "limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area". Thus, water quality objectives are intended to protect the public health and welfare, and to maintain or enhance water quality in relation to the existing and/or potential beneficial uses of the water. Water quality objectives apply to both Waters of the United States and Waters of the State (see Section 2.1.1.6, *Clean Water Act of 1977*; Section 401). In the State of California, the Porter-Cologne Water Quality Control Act is administered in concurrence with the § 401 CWA Water Quality Certification. As with § 401 CWA, the SWRCB would provide review and water quality certification for this Act.

2.1.2.9 Basin Plans

The SWRCB requires its nine RWQCBs to develop Basin Plans (water quality control plans) designed to preserve and enhance water quality and protect the beneficial uses of all Regional waters. Specifically, Basin Plans designate beneficial uses for surface waters and groundwater, set narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State antidegradation policy, and describe implementation programs to protect all waters in the Regions. In addition, Basin Plans incorporate by reference all applicable State

and Regional Board plans and policies, and other pertinent water quality policies and regulations. This project is regulated by the Basin Plans of the Santa Ana RWQCB and the Los Angeles RWQCB.

2.1.2.10 California State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State

As discussed in Section 2.1.1.5, in California the discharge of dredged or fill material to waters of the state may be regulated by the Federal Water Pollution Control Act Amendments of 1972, as amended (Clean Water Act) (33 U.S.C. § 1251 et seq.), and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) (Wat. Code, Div. 7, § 13000 et seq.). Under the Porter-Cologne Act, discharges of dredged or fill material to waters of the state are subject to waste discharge requirements or waivers thereof. Under the Clean Water Act, applicants for a federal license or permit for an activity that may result in a discharge of dredged or fill material to waters of the United States must obtain a certification from the state that the discharge will comply with certain provisions of the Clean Water Act and set forth any other appropriate requirement of state law.

As set forth in Resolution No. 2008-0026, although the state has historically relied primarily on requirements in the Clean Water Act to protect wetlands, U.S. Supreme Court rulings reducing the jurisdiction of the Clean Water Act over wetland areas by limiting the definition of "waters of the United States" have necessitated the use of California's independent authorities under the Porter-Cologne Act to protect these vital resources.

2.1.2.11 California State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

On April 2, 2019, the SWRCB Resolution No. 2019-0015, Amendment to the Water Quality Control Plan for Ocean Waters of California and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California to Establish a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures; subsequently approved by the Office of Administrative Law on August 28, 2019). These Procedures went into effect on May 28, 2020.

When a discharge is proposed to waters outside of federal jurisdiction, the SWRCB or the RWQCBs regulate the discharge under Porter-Cologne through the issuance of WDRs. The Procedures provide guidance for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities.

2.1.2.12 Construction General Permit Order 2009-009-DWQ (as amended)

The SWRCB and its nine RWQCBs implement water quality regulations under the federal CWA and California Porter-Cologne Water Quality Control Act. Existing water quality regulations require compliance with the National Pollutant Discharge Elimination System for discharges of storm water runoff associated with a construction activity.

Dischargers whose projects disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the Project. The SWPPP must list Best Management Practices (BMPs) the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The complete Notice of Intent package (including SWPPP) must be submitted to the SWRCB via the Storm Water Multiple Application and Report Tracking System (SMARTS) Database.

2.1.3 Regional and Local Ordinances, Plans, and Policies

2.1.3.1 Orange County General Plan

The Orange County General Plan primarily focuses on the unincorporated area and also addresses regional services and facilities provided by the County such as regional parks, roads, flood control facilities, etc. The Orange County General Plan consists of nine elements which include, Land Use, Transportation, Public Services and Facilities, Resources, Recreation, Noise, Safety, Housing, and Growth Management. The Resources element in particular contains official County policies and the conservation and management of resources and is comprised of six components, one of which is the Natural Resources Component and is primarily concerned with agricultural resources, mineral resource, vegetation and wildlife habitat, and landforms.

2.1.3.2 Los Angeles County General Plan

The Los Angeles County 2035 General Plan was adopted by the Los Angeles County Board of Supervisors on October 6, 2015. The new General Plan went into effect on November 5, 2015. The Conservation and Natural Resources Element (Chapter 9) of the plan guides the long-term conservation of natural resources and preservation of available open space. This section describes the County's role in the protection, conservation and preservation of natural resources and open space within the unincorporated areas of Los Angeles County.

2.1.3.3 Los Angeles County – Significant Ecological Areas

Significant Ecological Areas (SEAs) are officially designated areas within Los Angeles County identified for their irreplaceable biological resources and value. These areas warrant special management because they contain biotic resources that are considered to be rare or unique; are critical to the maintenance of wildlife; represent relatively undisturbed areas of County habitat types; or serve as linkages. Individual SEAs include undisturbed or lightly disturbed habitat supporting valuable and threatened species, linkages and corridors to promote species movement, and are sized to support sustainable populations of its component species. The SEAs are not wilderness preserves, and much of the land within the SEAs is privately-held, used for public recreation, or abuts developed areas.

The SEA Program was updated as a component of the Los Angeles County General Plan 2035. The update included SEA boundary revisions and grouping smaller SEAs into larger connected SEAs. The new General Plan went into effect on November 5, 2015 with the updated SEA Boundaries. The new

General Plan includes 21 SEAs and nine Coastal Resource Areas, and greatly expanded technical descriptions for each of the SEAs. Cumulatively, the 21 SEAs and nine Coastal Resource Areas represent the wide-ranging biodiversity of Los Angeles County, and contain its most important biological resources.

2.1.3.4 Municipal Tree-Related Ordinances (Buena Park)

Sections as described in City of Buena Park (2020) Municipal Code:

12.20.010: Prohibition against installing, damaging and removing vegetation, etc.
12.20.020: Installing, damaging, removing and maintain vegetation, ornaments, etc.
12.20.030: Obligations of Residential Property Owners
12.20.040: Removal Permits

12.20.010 Prohibition against installing, damaging and removing vegetation, ornaments and improvements in and from public property other than parkways. No person other than a city employee shall in any public street, alley, parkway, thoroughfare or place within the city other than a parkway abutting property owned or occupied by such person:

A. Plant or cut down, injure, girdle or remove any tree, shrub, bush or other vegetation;

B. Install, damage or destroy any ornament or improvement. (Ord. 1505 § 1, 2007)

12.20.020 Installing, damaging, removing and maintaining vegetation, ornaments and landscaping in and from parkways. No person shall in any parkway abutting property owed or occupied by such person:

A. Place, plant or cause to be placed or planted any tree, shrub or vegetation other than grass without obtaining a permit from the director of public works;

B. Cut down, injure, girdle, destroy or remove any vegetation, or install, damage or remove any ornament or improvement; provided, however, that this section shall not apply to the removal of vegetation or any ornament or improvement by a city employee;

C. Pave and/or resurface any portion of the parkway;

D. Permit the growth of any vegetation to exceed twenty-four inches in height above the curb or to obstruct any portion of the adjoining sidewalk or street. (Ord. 1505 § 1, 2007)

12.20.030 Obligations of residential property owners.

Owners and occupants of residentially zoned property shall:

A. Except for parkways lawfully paved or landscaped prior to the effective date of subsections C and D of Section 12.20.020, install grass and properly maintain all landscaping within the parkway adjacent to the property. The requirement to maintain landscaping within the adjacent parkway as set forth in this subsection shall exclude the obligation to maintain a city tree in said parkway other than providing water to the tree;

B. Notify the department of public works of any suspected tree hazards or maintenance needs of any tree in the parkway adjacent to the property;

C. Maintain the parkway adjacent to the property lawfully paved prior to the effective date of subsection D of Section 12.20.020 in a manner that does not create a hazard to any other person. Any person who fails to maintain a paved parkway as required by this subsection shall, upon receipt of written notification from the director of public works or his or her representative, remove the paving and install landscaping in compliance with subsection A of this section. (Ord. 1505 § 1, 2007)

12.20.040 Removal permits.

A. Persons desiring to remove any standing or growing trees or shrubbery or any ornament or improvement from a parkway adjacent to property owned or lawfully occupied by such persons shall apply to the director of public works for a permit. The application for such permit shall be in writing and set forth the reasons such removal is desired.

B. If the director finds upon investigation that the tree, shrub, ornament or improvement desired to be removed constitutes a private nuisance, is not of the type or species designated for such street or for other good cause shown, he or she shall issue a permit allowing such tree, shrub, ornament or improvement to be removed.

C. The permit for the removal of any tree, shrub, ornament or improvement shall prescribe the method or manner in which such tree, shrub, ornament or improvement shall be removed by the applicant, shall be conditioned upon the fact that all expenses and costs shall be borne by the applicant and shall contain a provision signed by the applicant that the applicant agrees to save, indemnify and keep harmless the city against all liabilities, judgments, costs and expenses which may in any wise accrue against the city in consequence of the granting of the permit or in consequence of the use or occupancy of any sidewalk, street or other public place or in any other wise by virtue thereof and will in all things strictly comply with the conditions of the permit and of this code, all ordinances, rules and regulations of the city.

D. The permit for the removal of any tree may require the replanting of another tree after the removal, and, if a replacement is required, the applicant shall deposit a sum fixed by the city council for each tree to be replaced before the permit shall be issued. If all the conditions of the permit are not complied with, the deposit required by this section will be forfeited to the city. If the conditions are complied with, the deposit shall be refunded to the applicant.

E. Any person aggrieved by the refusal of the director to issue a permit for the removal of any tree, shrub, ornament or improvement or by the requirements of such permit may appeal to the city council. The city council shall have the right and authority upon investigation and findings to issue the permit. (Ord. 1505 § 1, 2007)

2.2 Studies Required

2.2.1 Literature and Database Search

Information from the original report was used in this section. Mandatory information such as the USFWS species list was updated for this supplemental report. Information was obtained from literature searches, examinations of habitat as discernible from aerial photographs, and database searches including:

- the USFWS Information for Planning and Consultation (IPaC) system (2024; located in **Appendix C**, *IPaC Species List*) (Updated August 2024);
- NOAA's National Marine Fisheries Service (NOAA Fisheries) Species Lis was not obtained because the project is located outside of NOAA Fisheries jurisdiction.
- CNPS Inventory of Rare and Endangered Plants of California (online edition; 2020a);
- The Manual of California Vegetation Online Edition (MCV2; Sawyer et al., 2009, CNPS, 2020b);
- CDFW's California Natural Diversity Database (CNDDB) was used to identify special-status plant and wildlife species that may occur within the project site and within a ten-mile radius of the site (included in Appendix D and Appendix E of the original report).
- To identify the existing and potential biological resources present in the vicinity of the proposed Project, a geographic information system (GIS) search was performed. This consisted of mapping baseline biological resource data (CNDDB 2020, and National Hydrography Database (2020) waterways, and USFWS, 2020c);
- GIS datasets for USFWS Critical Habitat in the project region (USFWS, 2020c);
- Soils data was retrieved from the Natural Resources Conservation Service Web Soil Survey to determine type, consistency, and pH of the soils in the BSA (Soil Survey Staff, 2020);
- Other sources as cited in the text.

2.2.2 Field Reviews

No additional field reviews were conducted for this supplemental report.

2.3 Agency Coordination and Professional Contacts

At this time, formal consultation and/or agency coordination has not been conducted with the USFWS, CDFW, USACE, or the SWRCB.

2.4 Limitations That May Influence Results

This text was from the original report. Parts of the BSA were inaccessible private properties (residential, commercial, or gated) to which the biologists lacked right-of-access. If possible, areas such as these were surveyed using binoculars, and vegetation and wildlife observed were recorded and mapped. However, cryptic vegetation and wildlife may not have been visible through binoculars and therefore may not have been observed during the survey.

As discussed in the original report, the general biological field survey, and protected tree surveys[1] were conducted during daylight hours to maximize the detection of most wildlife and plant species. Some nocturnal wildlife species may not have been observable during the survey; however, if occurrence of their sign (e.g. tracks, scat) was observed, presence of the species within the BSA would have been assumed.

1 The jurisdictional delineation was completed through desktop review and daylight field photos.

3.0 Results: Environmental Setting

This section is based on the original report. According to *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin* (USDA, 2006):

> "The project site is within the Southern California Coastal Plain of the California Subtropical Fruit, Truck, and Specialty Crop Region, which was once characterized by annual and perennial grasses, scattered coast live oak; stands of brush consisting of buckwheat, ceanothus, California sagebrush, chamise, and scrub oak; and rangeland supporting wild oats, soft chess, red brome, filaree, burclover, needlegrass, tarweed, mustard, and annual lupine interspersed with coast live oak occurring as scattered individual trees to dense stands. Major wildlife species included deer, feral hog, mountain lion, coyote, bobcat, raccoon, skunk, jackrabbit, gray squirrel, ground squirrel, rattlesnake, turkey vulture, roadrunner, crow, quail, pigeon, blackbird, dove, heron, and coot. However, at least two-thirds of this area now consists of urban or suburban areas, and other land in the area is rapidly being converted to suburban, commercial, and industrial uses."

Elevation within the BSA ranges between 32 feet above mean sea level to 119 feet above mean sea level; (refer to **Figure 2,** *Project Location*, located in **Appendix A**). The proposed project is located in the cities of Cerritos, Buena Park, and La Mirada (see **Figure 3,** *Project Boundary and Biological Study Area [BSA]* located in **Appendix A**).

3.1 Description of the Existing Biological and Physical Conditions

Land use in the BSA and vicinity primarily consists of residential and commercial development. Most of the properties within the BSA are privately owned other than public roads, and the Coyote Creek and Coyote Creek North Fork channels and maintenance roads.

3.2 Physical Conditions in the Study Area

3.2.1 Water Resources

The project site is manly located in the Brea Creek-Coyote Creek Hydrologic Unit (HU; HU Code 180701060603); however, the pedestrian bridge located at station 10+00 in Coyote Creek North Fork, is in the La Mirada HU (HU Code 18071060602).

The entirety of Coyote Creek (north fork and east fork) within the project area is channelized. The channel structure varies regularly between trapezoidal (slant-walled), wide channel bottom (slant-walled), and rectangular (vertical-walled) throughout the project area.

The channels convey nuisance runoff and storm flow, and now comprise the current (and historic) Coyote Creek and Coyote Creek North Fork. The southernmost portion of the project area is the confluence of Coyote Creek and Coyote Creek North Fork, both of which are tributaries to the San Gabriel River, ultimately discharging into the Pacific Ocean, in Seal Beach, California. All flows within the channel are considered jurisdictional waters of the U.S. and waters of the State, protected under §§ 401 and 404 CWA, §§ 1600-1616 FGC, and SWRCB Resolution No. 2019-0015, as described in **Section 2.1**, *Regulatory Requirements*.

USFWS National Wetland Inventory. the National Wetland Inventory (NWI) has mapped Coyote Creek mainly as riverine, with an intermittent flow, with a streambed that is seasonally flooded and was excavated by humans at some point (R4SBCX), the only exception is a section that starts approximately 0.8 mile upstream of Knott Avenue and ends approximately 0.2 miles downstream of Knott Avenue and is mapped as palustrine with emergent and persistent vegetation (remains standing at least until the beginning of the next growing season), is seasonally flooded and was excavated by humans at some point (PEM1Cx); however, no hydrophobic vegetation or hydric soils were observed during the field surveys.

At the time of the original field investigation, surface water was observed in Coyote Creek North Fork and Coyote Creek. No wetlands, or signs of wetlands, were observed within the BSA.

3.2.2 Soils

The USDA National Resources Conservation Service (NRCS) Web Soil Survey (Soil Survey Staff, 2020) mapped six soil types within the boundary of the BSA. These soils types and some of their properties are presented in **Figure 4**, *USDA Soils 2nd Revalidation* (see **Appendix A**).

3.2.3 Biological Conditions in the Study Area

The additional project areas shown in Figure 2 have the same biological conditions as the original BSA. The BSA is mainly developed and consists of residential and commercial buildings with ornamental trees, paved roads and disturbed areas. Three different land cover types occur within the BSA, they are developed/ornamental, concrete-lined channel and disturbed. Land cover types for the proposed project can be seen in **Figure 5**, *Land Cover Types 2nd Revalidation*.

Wildlife observed in the BSA (directly or by sign) are discussed in the original report. A complete list of plant and wildlife species observed in the BSA is located in Appendix H of the original report.

3.2.4 Habitat Connectivity

As discussed in the original report, the BSA is not within a regional CDFW designated Essential Connectivity Area or Natural Landscape Block. Coyote Creek and Coyote Creek North Fork are concrete-lined flood control channels that lack vegetation; the BSA also lacks vegetation and does not support sensitive biological habitats or plant species.

3.2.5 Regional Species, Habitat, and Natural Communities of Concern

3.2.5.1 Regional Natural Communities of Concern

As discussed in the original report, five sensitive natural communities occur within ten miles of the project site. These include California walnut woodland, Southern California arroyo chub/Santa Ana sucker stream, Southern Coastal salt marsh, Southern coast live oak riparian forest, and Southern willow scrub. They were determined to be absent in the BSA.

3.2.5.2 Regional Plant Species of Concern

The literature review in the original report provided a list of 25 special-status plant species (plant inventory) within the study area. The potential to occur analysis table was provided in Appendix D of the original report. None had the potential to occur in the BSA. No new plant species are listed on the current USFWS species list included in **Appendix C**.

3.2.5.3 Regional Wildlife Species of Concern

In the original report, the database search provided a list of 43 special-status wildlife species (wildlife inventory). Each special-status wildlife species was assessed for its potential to occur within the BSA and project site by comparing its elevational range (if known) and distribution, retrieved from databases and literature, with the BSA's location and elevation range. A species was determined as being "Absent" within the BSA or project site if the BSA is well outside the species' known distribution and/or the species' known elevation range, or if the only recorded observations of the species are historic (i.e., the observation was recorded over 20 years ago; for the purpose of this report, if the observation was recorded prior to 1997). Appendix E of the original report included the *Wildlife Special-Status Species Inventory and Potential Occurrence Determination.*

A new U.S. Fish and Wildlife Service (USFWS) Species List was obtained on August 19, 2024 (see **Appendix C**). There are four new species listed in this 2024 list compared to the last species list obtained for the 1st CE Revalidation. The new species on the list include:

- Southwestern Willow Flycatcher (*Empidonax traillii extimus*) with the status of "Endangered",
- Southwestern Pond Turtle (*Actinemys pallida*) with the status of "Proposed Threatened",
- Western Spadefoot (*Spea hammondii*) with a status of "Proposed Threatened", and
- Monarch Butterfly (*Danaus plexippus*) with the status of "Candidate".

4.0 Results: Biological Resources, Discussion of Impacts and Mitigation

The following impacts were analyzed using the details provided in **Section 1.3,** *Project Description*.

4.1 Land Cover Types and Natural Communities within the BSA

The project site is essentially a concrete bottomed and walled flood control channel with adjacent bare dirt right of way that is currently used as a maintenance access road. This existing maintenance access road is proposed to be paved to provide a smooth all-weather surface for cyclists. At two roadways and two railroads, underpasses will be provided as a part of the project.

The literature review and field surveys determined that the BSA does not contain any sensitive plant communities but does contain three non-sensitive land cover types.

- Developed/Ornamental
- Concrete-lined Channel
- Disturbed

4.1.1 Potential Impacts to Land Cover Types and Natural Communities of Concern

No natural communities or sensitive habitats were observed within the BSA during the field surveys; therefore, no direct impacts to natural communities or sensitive habitats are anticipated as a result of construction of the project. Impacts to land covers are included in the original report. Figure 5 in **Appendix A** shows Land Cover Types for the original and additional project areas in the 2nd Revalidation. As shown on Figure 5, the new project areas only include Developed/Ornamental and Disturbed land cover. Temporary direct impacts would occur within the project work limits during construction but any disturbance would be restored to the preconstruction contours and elevations when construction is complete. No indirect impacts are anticipated. No mitigation measures are required.

4.2 Potential Impacts to Protected Trees

Impacts on protected trees are discussed in the original report. No new or additional impacts to trees would occur as a result of these project changes analyzed in the 2nd CE Revalidation.

The same mitigation measures presented in the original report (and already included in the Environmental Commitment Record [ECR]) for this project would still apply to the new project areas to avoid, eliminate or reduce direct or indirect effects on impacted trees. These include BIO-1: Qualified Biological Monitor, BIO-2: Worker Environmental Awareness Program (WEAP), BIO-3: Project Limits and Designated Areas, BIO-4: General Vegetation Avoidance and Protection Measures and BIO-5: Tree Removal Permit.

4.3 Potential Impacts to Special-Status Plant Species

No listed endangered, threatened, candidate or state rare plant species or sensitive plant species were observed within the BSA during any of the field surveys. The literature review and field surveys

concluded that habitat conditions within the BSA create a moderate potential for one sensitive plant species to occur: lucky morning-glory (*Calystegia felix*) (CRPR: 1B.1).

4.4 Potential Impacts to Special-Status Wildlife

A new U.S. Fish and Wildlife Service (USFWS) Species List was obtained on August 19, 2024 (**Appendix C**). There are four new species listed in this 2024 list compared to the last species list obtained for the 1st CE Revalidation. The new species on the list include:

- Southwestern Willow Flycatcher (*Empidonax traillii extimus*) with the status of "Endangered",
- Southwestern Pond Turtle (*Actinemys pallida*) with the status of "Proposed Threatened",
- Western Spadefoot (*Spea hammondii*) with a status of "Proposed Threatened", and
- Monarch Butterfly (*Danaus plexippus*) with the status of "Candidate".

Only the Southwestern Willow Flycatcher has final critical habitat designated for it. The USFWS species list letter stated that the project location does not overlap the critical habitat.

Three of these species were already included in the original 2020 Natural Environment Study (Minimal Impacts) (NESMI) on pages 7 to 9 in Appendix E2, *Wildlife Special-Status Species Inventory and Potential Occurrence Determination*. These pages are included in **Appendix D**. As explained in the table below, it was determined that although the BSA is located within these species' known distribution ranges, it does not contain suitable foraging or breeding habitats to support any of these species and therefore, it was determined there would be no potential for these species to occur. Although the southwestern pond turtle was not included in the 2020 NESMI, it did include the western (northern) pond turtle (*Emys marmorata*), which has the same habitat requirements as the southwestern pond turtle as shown in the attached 2023 federal register proposed rule, also included in **Appendix D**. Based on the results of the surveys conducted for the project, there is also no potential for the southwestern pond turtle to occur as well. No impacts are expected, and mitigation would not be required concerning these species.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and elevation Range (if known)	Contains Suitable Foraging, Roosting Habitats	
Empidonax traillii extimus	Southwestern Willow Flycatcher	FE, SE, Season of Concern: nesting	Southwestern willow flycatcher (SWFLs) breed and forage in relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes (e.g., reservoirs).	Yes	No	**No potential to occur.** The BSA is located within this bird's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and elevation Range (if known)	Contains Suitable Foraging, Roosting Habitats	
			SWFL suitable habitat contains surface water, saturated soil, or herbaceous wetland plants present during the early summer months; woody riparian vegetation is present and covers a minimum aerial extent of 20 percent over a 0.5 acre section of floodplain or adjacent streamside terrace; dense clumps or stands of woody vegetation are present. SWFLs also nests in thickets dominated by the non-native tamarisk and Russian olive and in habitats where native and non-native trees and shrubs are present in essentially even mixtures.			
Danaus plexippus pop. 1	monarch - California overwintering population	G4 S2S3	Their roosts are located in wind-protected tree groves (eucalyptus [Eucalyptus sp.], Monterey pine [Pinus radita], cypress), with nectar and water resources nearby. Monarch butterflies lay their eggs exclusively on milkweed, which larva feed on them.	Yes	No	**No potential to occur.** The BSA is located within this invertebrate's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and elevation Range (if known)	Contains Suitable Foraging, Roosting Habitats	
Actinemys pallida (=Actinemys marmorata pallida)	southern western pond turtle	SSC, BLMS, USFS: S, WRCMSHCP: Covered	Habitats: Habitat needs for the two species include: (1) aquatic features such as ponds, lakes, and streams for breeding, feeding, overwintering, sheltering, and dispersal; (2) basking sites that allow for thermoregulation; and (3) terrestrial or upland features adjacent to the aquatic habitat for nesting, overwintering and aestivation, and dispersal and connectivity between populations (see attached Federal Register proposed rule).	Yes	No	**No potential to occur.** The BSA is located within this reptile's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species
Spea hammondii	western spadefoot	SSC,	May be found in coastal sage scrub, open chaparral, pine-oak woodlands and grassland habitats, but is most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas. Within these habitats, they require rain pools/vernal pools in which to reproduce and that persist with more than three weeks of standing water in which to metamorphose successfully. They can also breed in slow-moving streams (e.g., areas flooded by	Yes	No	**No potential to occur.** The BSA is located within this amphibian's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species A CNDDB Inquiry within 10 miles of the BSA showed 7 *Spea hammondii* observations. The most recent observation was on April, 2010, approximately 6.38 miles away; the closest observation was in 1978,

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and elevation Range (if known)	Contains Suitable Foraging, Roosting Habitats	
			intermittent streams). Water breeding sites must lack fish, bullfrogs, and crayfish in order to successfully reproduce and metamorphose. They estivate in sandy, gravelly soil in upland habitats adjacent to potential breeding sites in burrows approximating 1 meter in depth.			approximately 1.6 miles away.

Source: UltraSystems, 2020

4.4.1 Bats

As discussed in the original report, Western Mastiff Bat was not observed during the survey, this species has a moderate potential to occur within the BSA. The BSA is located within this mammal's known distribution and contains suitable habitat (CDFW, 2020e; CDFW, 2020f; Gogol-Prokurat, 2016).

The only bridge containing roosting bats was Stage Road. Bat guano was abundant in areas in the wash where active flow was not occurring. Over 100 bats were observed emerging from this roost at sunset. Two species were recorded over the course of surveys: big brown bat, and Mexican free-tailed bat. Bats from this roost were observed foraging in areas around other bridges, but no bats were observed emerging from other bridges. No bats were recorded at other bridges during the time period where bats had previously been recorded emerging from the occupied roost.

Bats were observed foraging around the following bridges: North Firestone Boulevard, proposed Pedestrian/Cyclist Bridge North of Stage Road, and La Mirada Boulevard.

Figure 6 in **Appendix A** shows the Bat Colony Location with the project features including the new project features in the 2nd CE Revalidation.

Direct impacts to bats are not anticipated as a result of the 2nd Revalidation project changes because none of the existing bat roosts or surfaces of the underpasses that typically contain substrates that can be utilized as bat habitat will be altered during construction. Indirect impacts described in the original document would be the same, temporary during construction. All the same mitigation measures discussed in the original document and included in the original Environmental Commitment Record will remain the same and will still apply to the new project areas. No new mitigation measures would be required.

4.5 Potential Impacts to Waters of the U.S. and State

A 2nd Supplemental Jurisdictional Delineation Memo and Impacts to Jurisdictional Waters Mapbook for CE 2nd Revalidation, District 12-ORA, ATPL-5955(112) is included in **Appendix E**.

4.5.1 Sections 401 and 404 of the Clean Water Act

As discussed in the original document, project-related impacts to waters of the U.S. (e.g. scaffolding) will be restored to their preconstruction contours and elevations before construction is complete; therefore, all impacts to waters of the U.S. will be temporary impacts.

4.5.2 Section 1602 of the California Fish and Game Code

The absence of riparian vegetation combined with the developed nature of the areas adjacent to channels were the overwhelming factors in making the determination that the top of the channel comprised the lateral extent of the waters of the State (CDFW; refer to the *Impacts to Jurisdictional Waters Mapbook for 2nd Revalidation* in **Appendix E**, for locations of delineated waters of the State).

Coyote Creek North Fork and Coyote Creek are determined to be waters of the State under the jurisdiction of the California Department of Fish and Wildlife under §§ 1602 through 1616 of the California Fish and Game Code in that

1. All streams in the State of California are under CDFW jurisdiction under § 1602 of the Fish and Game Code; and

2. Coyote Creek North Fork and Coyote Creek, within the limits of the BSA, meet the definition of a watercourse as "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators" as provided by Brady and Vyverberg (2013).

Final jurisdictional status will be provided by the USACE, SWRCB, and CDFW. The *Impacts to Jurisdictional Waters Mapbook for 2nd Revalidation* in Appendix E depicts the jurisdictional boundaries of the waters of the U.S. and waters of the State that were delineated within the affected portion of the BSA.

Should the USACE decline jurisdiction over Coyote Creek and Coyote Creek North Fork, the SWRCB could regulate project-related discharges under Porter-Cologne through the issuance of a Waste Discharge Requirement (WDRs; SWRCB Resolution No. 2019-0015).

4.5.3 Potential Impacts

Table 1 on Appendix E shows the proposed project changes will result in approximately 0.51 acre of new additional temporary impacts to waters of the U.S. (WOUS) (Ordinary High Water Mark [OHWM]). Table 2 in Appendix E shows the proposed project changes will result in approximately 0.74 acre of new additional temporary impacts to waters of the State (WOS) (California Department of Fish and Wildlife top-of-bank [CDFW TOB]). There would be no change to the type of permits required, which include a Clean Water Act (CWA) Section 404 Nationwide Permit, a Section 408 Authorization from the U.S. Army Corps of Engineers (USACE) to alter a "Civil Works" project, a CWA

Section 401 Water Quality Certification, and a §1602 California Fish and Game Code (FGC) Lake or Streambed Alteration Agreement from the CDFW.

The project will still be required to submit an application for Water Quality Certification (under § 401 CWA, and in compliance with the Porter-Cologne Water Quality Control Act) to the SWRCB. The project will also be required to submit a Lake or Streambed Alteration Notification (under § 1602 FGC) to the South Coast Regional Office of CDFW.

The new project areas would have no permanent impacts to wetlands or other waters of the US and State, or to water quality. With implementation of site-specific stormwater construction BMPs to minimize or avoid construction-related impacts, as detailed in the required SWPPP, potential impacts would be temporary in nature and less than significant. Mitigation is not required.

4.6 Potential Impacts to Wildlife Corridors

The literature review and field surveys determined that the BSAs do not function as wildlife movement corridors. Coyote Creek Channel is a concrete-lined channel devoid of vegetation within the project limits, hence, does not provide habitats to support a large amount of species. No direct or indirect impacts on wildlife corridors are anticipated as a result of construction of the project; therefore, no avoidance and minimization measures are required and no compensatory mitigation is required.

5.0 Conclusions and Regulatory Determination

Each project must comply with federal, state, and local environmental laws and regulations. The mix of regulatory permits and approvals required to construct the project depends on several factors, including the final project layout and the proximity of necessary construction to protected resources. Additional requirements may be identified upon further consultation with the resource agencies and as project design and layout become more refined. Consultation with resource agencies has not been initiated yet, except as described within Section 5.2, below. The following sections describe the process to obtain the potential and necessary permits and approvals.

5.1 Federal Endangered Species Act Consultation Summary

The project is located outside of the jurisdiction of the NOAA; therefore, a NOAA Fisheries species list is not required and no effects to NOAA Fisheries would occur.

Based on the original report and the new project changes, effects determinations for the federal threatened and endangered species and USFWS Critical Habitats obtained from the USFWS list of species that may occur in the BSA is provided below.

- Pacific pocket mouse Effect Determination: *No effect.*
- California least tern Effect Determination: *No effect.*
- Coastal California gnatcatcher Effect Determination: *No effect.*
- Least Bell's vireo Effect Determination: *No effect.*
- Light-footed clapper rail Effect Determination: *No effect.*
- Southwestern willow flycatcher Effect Determination: *No effect.*
- Western snowy plover: *No effect.*
- Santa Ana sucker Effect Determination: *No effect.*
- San Diego fairy shrimp Effect Determination: *No effect.*
- Nevin's Barberry Effect Determination: *No effect.*
- Salt Marsh Bird's-beak Effect Determination: *No effect*.
- San Diego Button-celery Effect Determination: *No effect.*
- Ventura Marsh Milk-vetch Effect Determination: *No effect.*
- USFWS Coastal California gnatcatcher Critical Habitat Effect Determination: *No effect.*
- Southwestern Pond Turtle: *No effect.*
- Western Spadefoot: *No effect.*
- Monarch Butterfly: *No effect.*

5.2 Wetlands and Other Waters Coordination Summary

Coordination has not yet been initiated with the SWRCB, or CDFW with regard to wetlands and other waters of the U.S. and State.

5.2.1 Clean Water Act § 404 Nationwide Permit

Waters of the U.S., including wetlands, are subject to the USACE jurisdiction under § 404 of the CWA. The project would qualify for a §404 Nationwide Permit 14 for Linear Transportation Projects from the USACE. §404 of The CWA requires linear transportation projects that will result in the permanent loss of 0.10 acre or more of waters of the U.S. to submit a PCN to the USACE.

As stated in the 2017 Nationwide Permit (NWP) Program (NWP 14 Linear Transportation Projects), "The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10 acre; or (2) there is a discharge in a special aquatic site, including wetlands." The project complies with USACE Los Angeles District Regional Conditions for the 2017 Nationwide Permits Program, and to all General Conditions. Due to the lack of permanent impacts (i.e., losses of waters of the U.S.), the project is not required to submit a PCN pursuant to General Condition 32; however, in the interest of transparency, it is recommended that the project submit a PCN to the USACE, Los Angeles District.

The USACE will review the PCN and determine if the project qualifies for the requested NWP. If the USACE issues an NWP, the permit would specify required BMPs, avoidance and protection measures, and/or compensatory mitigation measures for impacts to jurisdictional waters of the U.S. Compliance with the requirements of the USACE's regulatory program and implementation of mitigation measures required by the NWP would offset the loss of waters of the U.S. and minimize potential project-related adverse effects.

Table 1 on Appendix E shows the proposed project changes will result in approximately 0.51 acre of new additional temporary impacts to WOUS (Ordinary High Water Mark [OHWM]). The new impact areas are shown on the mapbook in Appendix E. The new areas of temporary impact are only for temporary placement of equipment in the channel such as the crane during construction of the bridges. No permanent impact to the channel and no recontouring will be needed.

5.2.2 Clean Water Act § 401 Water Quality Certification

The USEPA has given California's SWRCB and its nine RWQCBs the authority to issue, waive, or deny WQC that a proposed activity maintains compliance with federal water quality standards, pursuant to §401 CWA. For most construction projects, SWRCB and RWQCBs usually use the 401 Program to implement water quality standard and regulations pursuant to the California Porter-Cologne Water Quality Control Act (Porter-Cologne). Pursuant to Porter-Cologne, all waters in the state of California are waters of the State, and waters of the U.S. are a subset of these.

Section 401 of the CWA requires every applicant for a federal license, federal permit to conduct any activity which may result in any discharge of dredge or fill material into waters of the U.S., or whose activity has potential may result in any discharge of dredge or fill material, or other pollutants into waters of the State provide a certification that any project-related discharges will comply with the CWA, state water quality laws (e.g., Porter-Cologne), and other appropriate state regulations (e.g., California Water Code), including water quality standard requirements.

The project will be required to submit an application for Water Quality Certification (under § 401 CWA, and in compliance with the Porter-Cologne Water Quality Control Act) to the SWRCB. No permanent impacts to waters of the U.S. and State would result from construction of the project.

Approximately 0.51 acre of additional waters of the U.S. and approximately 0.74 acre of additional waters of the State will be temporarily impacted by the project (refer to **Appendix E**).

5.2.3 § 1602 Lake or Streambed Alteration Agreement

The additional temporary construction areas will not permanently impact any Waters of the State but will temporarily impact 0.74 acre (refer to **Appendix E**). The project would be required to submit a notification package to the Lake or Streambed Alteration Division at CDFW pursuant to §§ 1600-

1616 FGC. CDFW regulates waters of the State through its Lake and Streambed Alteration Program. § 1602 requires an entity to notify CDFW prior to any activity that may "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" or that may that derives benefit from the river, stream, or lake.

Prior to the issuance of grading or building permits for the project, and prior to any impacts to the drainages, OCPW will obtain a Lake or Streambed Alteration Agreement (Agreement) from CDFW pursuant to §§ 1600-1616 FGC, authorizing specific impacts to waters of the State under their jurisdiction. The Agreement will mandate BMPs, avoidance and protection measures, and compensatory mitigation measures for impacts to waters of the State regulated by § 1602. Authorized impacts and mitigation related the project will be defined by the conditions of the Agreement between OCPW and the CDFW. All measures to protect fish and wildlife resources required by the Agreement will be incorporated into the project design as appropriate. Compliance with the requirements of the Agreement and implementation of mitigation measures required by the permit would offset the loss of waters of the State and minimize or avoid potential project-related impacts.

5.3 Invasive Species

No new impacts or mitigation measures are expected or required due to the 2nd Revalidation project changes. The same original mitigation measures apply.

5.4 Migratory Bird Treaty Act

No new impacts or mitigation measures are expected or required due to the 2nd Revalidation project changes. The same original mitigation measures apply.

6.0 References

Allen, T. B, 1987. Family Molossidae. Pp. 72 in Wild Animals of North America. Washington, D. C: The National Geographic Society.

Ahlborn, G, 2000. "California Wildlife Habitat Relationships System" (On-line). Accessed 10/8/2001 at http://www.dfg.ca.gov/whdab/cwhr/M042.html.

Association of Environmental Professionals (AEP), 2019. 2019 CEQA (California Environmental Quality Act) Statutes & Guidelines. Available at https://opr.ca.gov/ceqa/. Accessed on August 5, 2020.

Benes, E.S. 1969. Behavioral evidence of color discrimination by the whiptail lizard, *Cnemidophorus. Copeia* 1969:707-722. Brady, Roland H. III, Kris Vyverberg. 2013. Methods to Describe and Delineate Episodic Stream

California Legislative Information, 2020. California Law Code Search. Fish and Game Code, Division 2 Department of Fish and Wildlife, Chapter 3, Other Powers and Duties, Sections 1002, 1002.5 and 1003. Available at http://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=FGC&division=2.&title=&part=&chapter=3.&article=1. Accessed on August 5, 2020.

CDFW (California Department of Fish and Wildlife), Natural Diversity Database, 2019. *Special Animals List. Periodic Publication* (updated August 2019).

CDFW. 2020a. Species of Special Concern FAQ, How Does the Department Use the SSC Designation? Website: https://wildlife.ca.gov/Conservation/SSC#394871318-how-does-the-department-use-the-ssc-designation. Accessed on August 5, 2020.

CDFW. 2020b. Species of Special Concern FAQ, How Are SSCs Addressed Under the California Environmental Quality Act? Available at https://wildlife.ca.gov/Conservation/SSC#394871319-how-are-sscs-addressed-under-the-california-environmental-quality-act. Accessed on August 5, 2020.

CDFW, 2020c. Fully Protected Animals. Available at http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html. Accessed on March 29, 2020.

CDFW, 2020d. Species of Special Concern. Available at https://www.wildlife.ca.gov/Conservation/SSC. Accessed on March 19, 2020.

CDFW, 2020e. California Natural Diversity Database (CNDDB). Available at https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx. Accessed on August 5, 2020.

CDFW, 2020f. California Wildlife Habitat Relationships (CWHR), Life History Accounts and Range Maps. Available at https://map.dfg.ca.gov/imaps/cwhr/cwhrlife.html. Accessed on July 14, 2020.

City of Buena Park, 2020. Buena Park Municipal Code. Available at: http://qcode.us/codes/buenapark/.

CNDDB (California Natural Diversity Database), 2020. RareFind 5 [Internet]. California Department of Fish and Wildlife [Version 5.2.14].

CNPS (California Native Plant Society, Rare Plant Program), 2020a. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org. Department of Fish and Wildlife [Version 5.2.14]. Accessed March 19, 2020.

CNPS (California Native Plant Society), 2020b. A Manual of California Vegetation, Online Edition. http://www.cnps.org/cnps/vegetation/. Accessed on February 22, 2020. California Native Plant Society, Sacramento, CA.

Cockrum, E. L., 1960. Distribution, habitat and habits of the mastiff bat, *Eumops perotis*, in North America. Arizona Academy of Sciences: 79-84.

Curtis, K.E. and R.W. Lichvar. 2010. Updated Datasheet for the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States. Wetland Regulatory Assistance Program. Cold Regions Research and Engineering Laboratory. U.S. Army Engineer Research and Development Center, Hanover, New Hampshire.

EAFB (Edwards Air Force Base). 2008. Integrated Natural Resources Management Plan for Edwards Air Force Base, California. Edwards Air Force Base Plan 32-7064. August 2008. Environmental Management Office, Edwards Air Force Base California. August 2008.

Gogol-Prokurat, M. (2016, June 16). Western Mastiff Bat Range – (CWHR M042) [ds1837]. Calif. Dept. of Fish and Wildlife. Biogeographic Information and Observation System (BIOS). Available at http://bios.dfg.ca.gov. Accessed August 5, 2020.

Google Earth Pro V7.1.8.3036. (February 20, 2020). City of Cerritos, Los Angeles County, California. 33.868266° -118.033019°, eye alt. 3,457 feet. Google Earth 2020. https://www.google.com/earth/. Accessed on February 20, 2020.

Google Earth Pro V7.1.8.3036. (February 20, 2020). City of La Mirada, Los Angeles County, California. 33.877945° -118.015994°, eye alt. 3,457 feet. Google Earth 2020. https://www.google.com/earth/. Accessed on February 20, 2020.

Google Earth Pro V7.1.8.3036. (February 20, 2020). City of Buena Park, Orange County, California. 33.882747° -118.000059°, eye alt. 3,457 feet. Google Earth 2020. https://www.google.com/earth/. Accessed on February 20, 2020.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, Nongame Heritage Program, California Department of Fish & Game, Sacramento, Calif.

Jepson Flora Project (eds), 2018. Jepson eFlora. Available at http://ucjeps.berkeley.edu/eflora/. Accessed on February 21, 2020.

Lichvar, R.W. and S.M. McColley. 2008. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual*. ERDC/CRREL TR-08-12. Cold Regions Research and Engineering Laboratory. Cold Regions Research and Engineering Laboratory. U.S. Army Engineer Research and Development Center, Hanover, New Hampshire.

NARA (National Archives and Records Administration), 1977. Federal Register – Codification of Presidential Proclamations and Executive Orders: Executive Orders. Available at https://www.archives.gov/federal-register/codification/executive-order/11990.html. Accessed on March 19, 2020.

NTCHS (National Technical Committee for Hydric Soils), 2012. Notice of Changes to the National Soil Information System (NASIS) Database Selection Criteria for Hydric Soils of the United States. 77 FR 12234, 12234-12235. 02/29/2012.

OPR (State of California Governor's Office of Planning and Research). 2020. CEQAnet Web Portal. Available at https://ceqanet.opr.ca.gov/. Accessed on May 12, 2020.

Pers. Comm., 2020. Personal Communication between Veronica Li (USACE) and Michelle Tollett (UltraSystems), on April 3, 2020.

Piersen, E.D. 1998. Western Mastiff bat, *Eumops perotis*. In: Ecology, Conservation, and Management of Western Bat Species: Bat Species Accounts. Unpublished document distributed at the Western Bat Working Group Workshop, February 9-13, 1998, Reno, NV.

Pierson, E.D. and W.E. Rainey. 1996. The importance of mines as roosting habitat for bats: *Plecotus townsendii* in California. Bat Research News 32:83.

Provance and Sanders, 2013. Lucky Morning Glory, Calystegia felix (Convolvulaceae): A New Species from Southern California, with Notes on the Historical Ecology of the Chino Ciénega Belt. Available at https://www.ncbi.nlm.nih.gov/pubmed/24399903. Accessed on April 29, 2020.

RWQCB (Los Angeles Regional Water Quality Control Board), 2018. TMDL – Impaired Water Bodies. Available at https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml. Accessed on November 12, 2018.

Stantec Consulting Services Inc (Stantec), 2015. OC Loop Gap Feasibility Study. March. Accessed online on January 2, 2020 at: http://www.ocparks.com/civicax/filebank/blobdload.aspx?BlobID=44087

Sawyer, J.O., T. Keeler-Wolf, J.M. Evens. 2009. *A Manual of California Vegetation, Second Edition*. California Native Plant Society Press. Sacramento, CA.

Schoenherr, A.A. 1976. The Herpetofauna of the San Gabriel Mountains Los Angeles, California Including Distribution and Biogeography. Special Publication of the Southwestern Herpetologist's Society, February 1, 1976.

Soil Survey Staff (Web Soil Survey), Natural Resources Conservation Service, United States Department of Agriculture, 2020. Web Soil Survey. Accessed online at: https://websoilsurvey.sc.egov.usda.gov/. Accessed on February 12, 2018.

SWRCB (California State Water Resources Control Board). 2017. 2014 AND 2016 California Integrated Report (Clean Water Act § 303[d]) List. Available at https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml. Downloaded on May 15, 2020.

UltraSystems, 2020. *Jurisdictional Delineation Report for the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project*, UltraSystems Environmental, Inc. July 2020.

USACE (United States Army Corps of Engineers). 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experiment Station. Retrieved from: http://el.erdc.usace.army.mil/wetlands/pdfs/wlman87.pdf

USACE, 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0),* ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

USDA, 2006. *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin*. U.S. Department of Agriculture Handbook 296.

USEPA (United States Environmental Protection Agency). 2020. WATERS (Watershed Assessment, Tracking, & Environmental Results System) Data v. 1.10. Available at https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Downloaded January 24, 2020.

USFWS (U.S. Fish and Wildlife Service), 2016. Listing endangered and threatened species and designating critical habitat: Implementing changes to the regulations for implementing critical habitat. Federal Register 81, pp 7414-7440.

USFWS (United States Fish & Wildlife Service). 2020b. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Available at https://www.fws.gov/wetlands/data/mapper.html. Accessed on April 16, 2020.

USFWS, 2020b. Invasive Species Laws and Regulations. Available at https://www.fws.gov/invasives/laws.html. Accessed on March 19, 2020.

USFWS, 2020c. Critical Habitat for Threatened & Endangered Species online mapper. Available at: https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77. Accessed on March 19, 2020.

USFWS, 2024. Information for Planning and Consulting (IPaC): Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project. Consultation code: 2023-0100164. Available at https://ecos.fws.gov/ipac/. Accessed on August 19, 2024.

USGS, 2020. National Hydrography Dataset. Available at: https://www.usgs.gov/core-science-systems/ngp/national-hydrography Accessed on March 19, 2020.

Western Regional Climate Center (WRCC), 2020. Cooperative Climatological Data Summaries. Available at: https://wrcc.dri.edu/Climate/west_coop_summaries.php

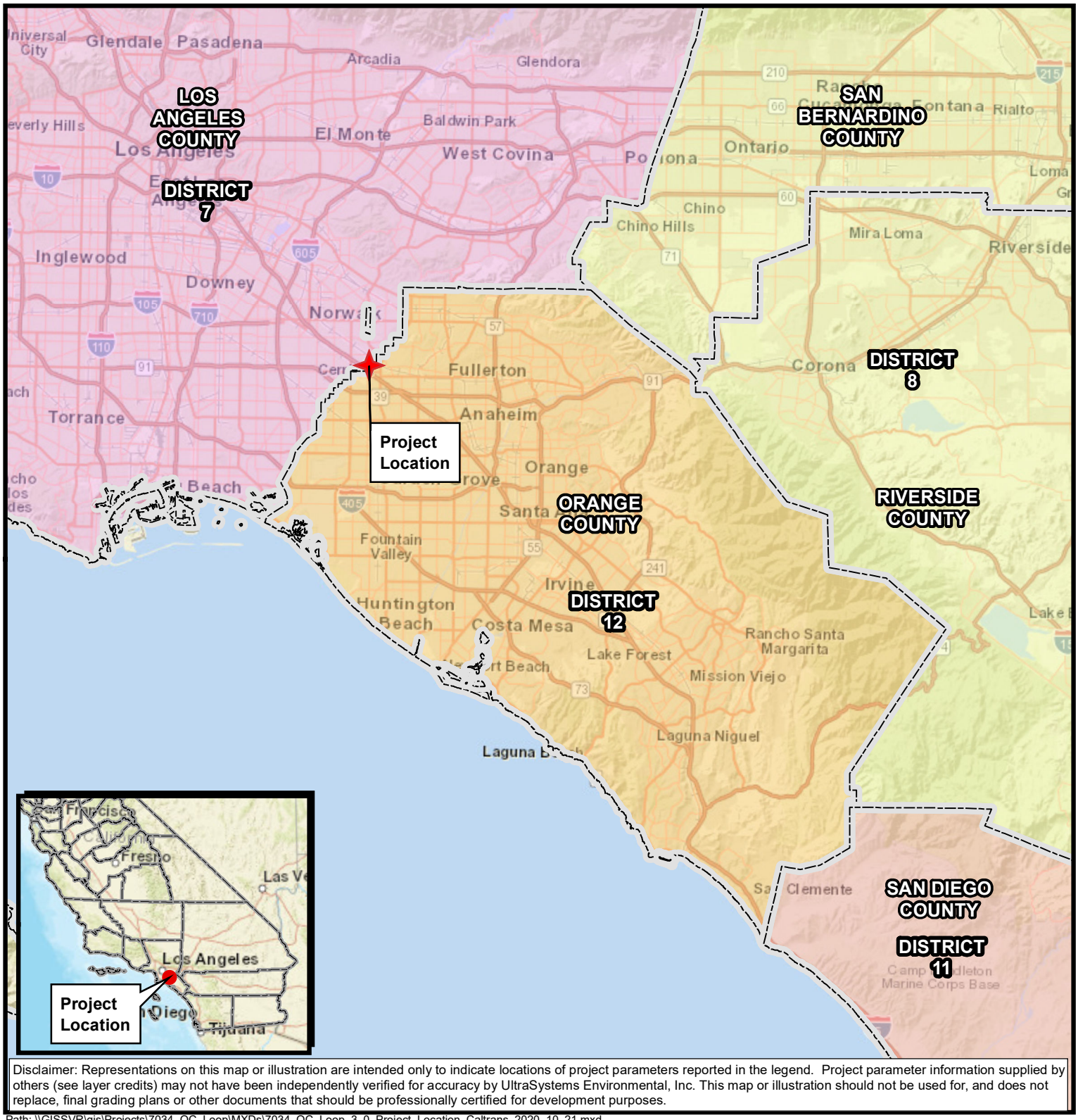
APPENDICES

This page intentionally left blank.

APPENDIX A

Maps and Figures

This page intentionally left blank.



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_3_0_Project_Location_Caltrans_2020_10_21.mxd

October 21, 2020

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community; California Department of Forestry and Fire Protection, May 2009; UltraSystems Environmental, Inc., 2020.

OC Loop
Segments O, P, and Q
Coyote Creek Bikeway Project

Figure 1. Project Vicinity

Scale: 1:506,880

N

0 4 8 Miles

0 4.5 9 Kilometers

Legend

Project Location

County Boundary

Caltrans District

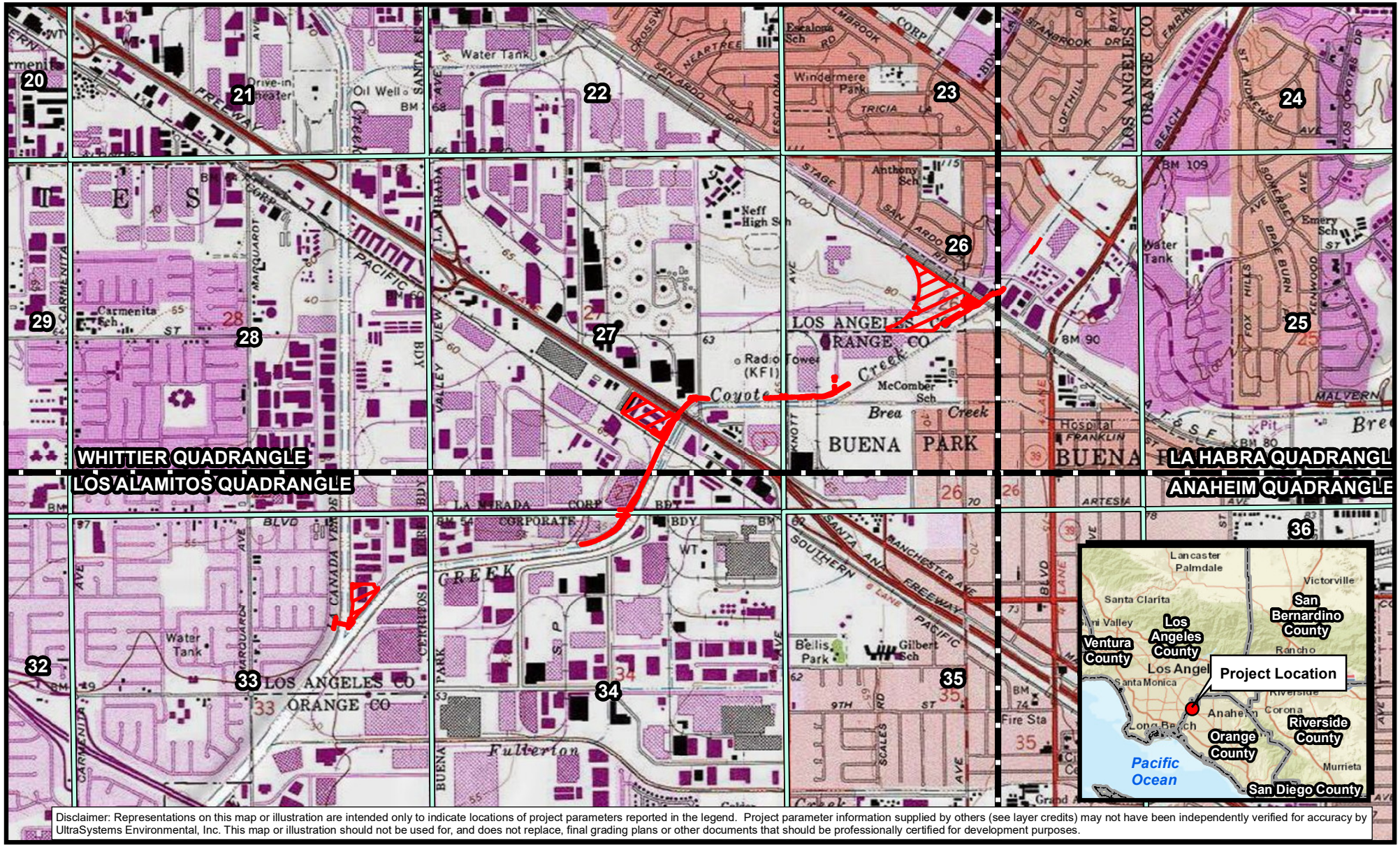
7

8

11

12

UltraSystems
environmental • management • planning



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Cul_Map2Location_ForASR_2023_12_08_Rev1.mxd

December 08, 2023

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community,
Copyright:© 2013 National Geographic Society, i-cubed; UltraSystems Environmental, Inc., 2023.

Scale: 1:24,000

N

0 1,000 2,000 Feet

0 250 500 Meters

Legend

- 2nd Revalidation - NEW Area of Direct Impacts (ADI) (Project Boundary)
- Quadrangle Boundary
- Section Boundary

OC Loop Segments O, P, and Q
Coyote Creek Bikeway Project

Figure 2: Project Location

UltraSystems
environmental • management • planning

OC Loop-Segments O, P, and Q
2nd Revalidation

Legend

- NEW Additional 150ft Biological Study Area
- 150ft Biological Study Area (BSA) (original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- NEW Other Temp Work Areas
- Existing Commercial Advertising Sign (to be relocated)
- New Location of Commercial Advertising Sign (permanent easement may be required)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding Only
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring Only
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Segment O
- Segment P
- Segment Q
- County Boundary

Key Map



0 450 900 Feet

0 150 300 Meters

N

Scale: 1:10,800

Project Boundary and Biological Study Area (BSA) 2nd Revalidation

Figure 3

UltraSystems
environmental • management • planning

Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_4_4_BSA_2023_06_30.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; UltraSystems Environmental, Inc., 2023

June 30, 2023

OC Loop-Segments O, P, and Q
2nd Revalidation

USGS Soil Type

- 1000LA_Urban land-Metz-Pico complex, 0 to 2 percent slopes
- 1000_Urban land-Hueneme, drained-San Emigdio complex, 0 to 2 percent slopes
- 1005_Urban land-Biscailuz-Hueneme, drained complex, 0 to 2 percent slopes
- 1134_Urban land-Thums-Pierview complex, 0 to 5 percent slopes
- 1137LA_Urban land-Ballona-Typic Xerorthents, fine substratum complex, 0 to 5 percent slopes
- 1137_Urban land-Ballona-Typic Xerorthents, fine substratum complex, 0 to 5 percent slopes
- 1261LA_Urban land, frequently flooded, 0 to 5 percent slopes
- 1261_Urban land, frequently flooded, 0 to 5 percent slopes
- 140_Chino silty clay loam, drained
- 140oc_Chino silty clay loam, drained

Legend

- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Permanent Easement
- NEW ROW
- NEW Temporary Construction Easement (TCE)
- NEW Other Temp Work
- Segment O (Original plus 1st Revalidation)
- Segment P (Original plus 1st Revalidation)
- Segment Q (Original and 1st Revalidation)
- County Boundary

Key Map



0 450 900 Feet

0 150 300 Meters

N

Scale: 1:10,800

USDA Soils
2nd Revalidation

Figure 4

UltraSystems
environmental • management • planning

Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_4_4_Soil_2023_06_30.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; USDA, 2016-2019; UltraSystems Environmental, Inc., 2023

June 30, 2023

OC Loop-Segments O, P, and Q
2nd Revalidation

Legend

- NEW Proposed Bikeway Alignment
- Concrete Lined Channel
- Developed/Ornamental
- Disturbed
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA)
- NEW Other Temp Work
- Segment O
- Segment P
- Segment Q
- County Boundary

Key Map



0 450 900 Feet

0 150 300 Meters

N

Scale: 1:10,800

Land Cover Types
2nd Revalidation

Figure 5

UltraSystems
environmental • management • planning

Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_4_4_Land_Cover_Types_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; UltraSystems Environmental, Inc., 2023

July 05, 2023

OC Loop-Segments O, P, and Q
2nd Revalidation

Legend

- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- NEW Other Temp Work
- 1st Revalidation-ROW Acquisition
- 1st Revalidation-Temporary Construction Easement (TCE)

Project Location

- Segment Q (original and 1st revalidation)
- County Boundary

Bat Colony Location

- Brazilian free-tailed bats
- Big brown bats

Key Map



0 75 150 Feet

Scale: 1:1,800

0 20 40 Meters

N

Bat Colony Location
2nd Revalidation

Figure 6

UltraSystems
environmental • management • planning

Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

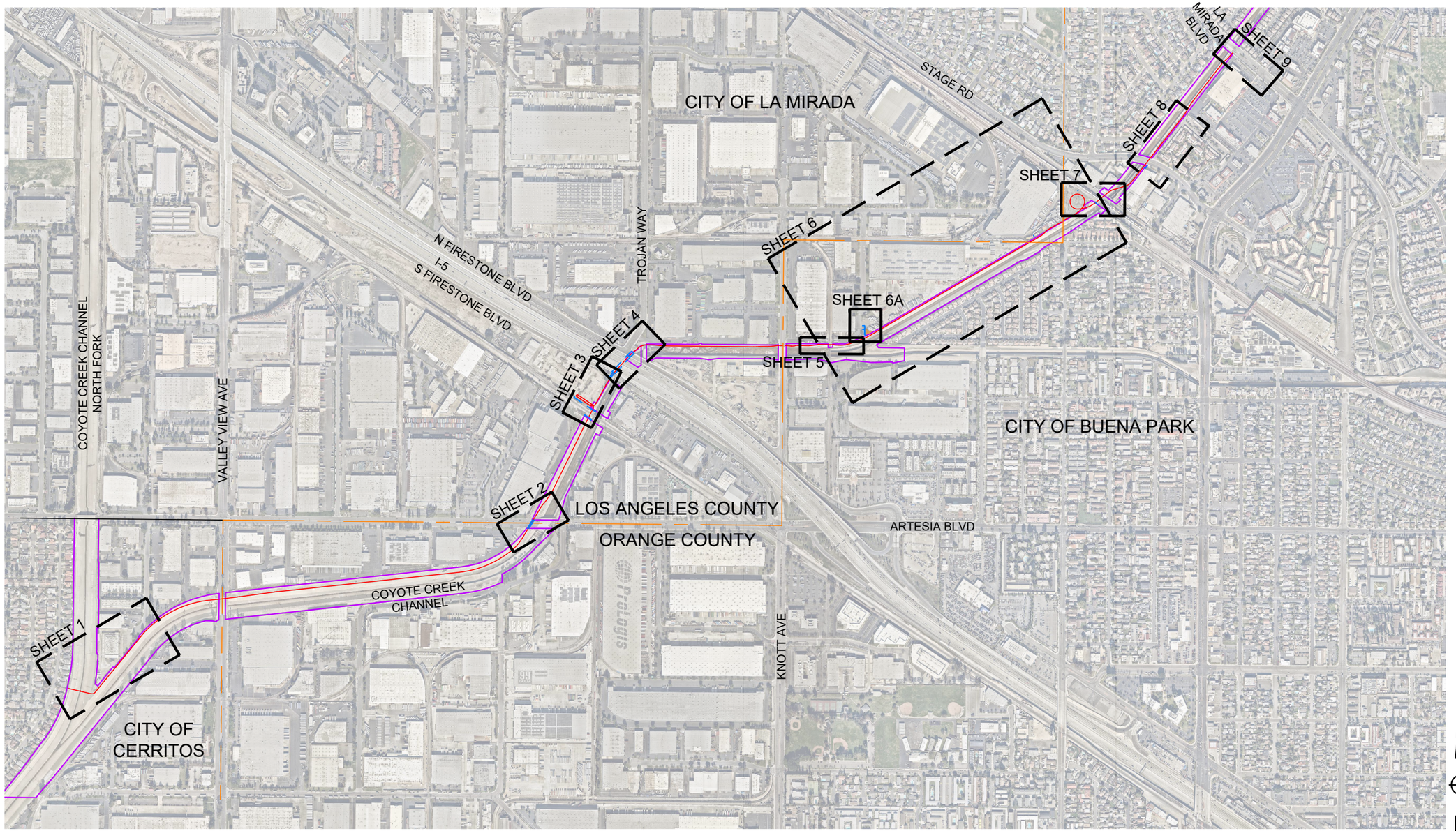
Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_Bat_Locations_2ndReval_2023_06_30.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; UltraSystems Environmental, Inc., 2023

June 30, 2023

APPENDIX B

DESIGN CHANGES AND NEW EASEMENTS PLAN PAGES
GEOTECHNICAL BORINGS AND ACCESS MAPS



LEGEND

- PROPOSED BIKEWAY
- COUNTY BOUNDARY
- EASEMENT (TYPE PER PLAN)

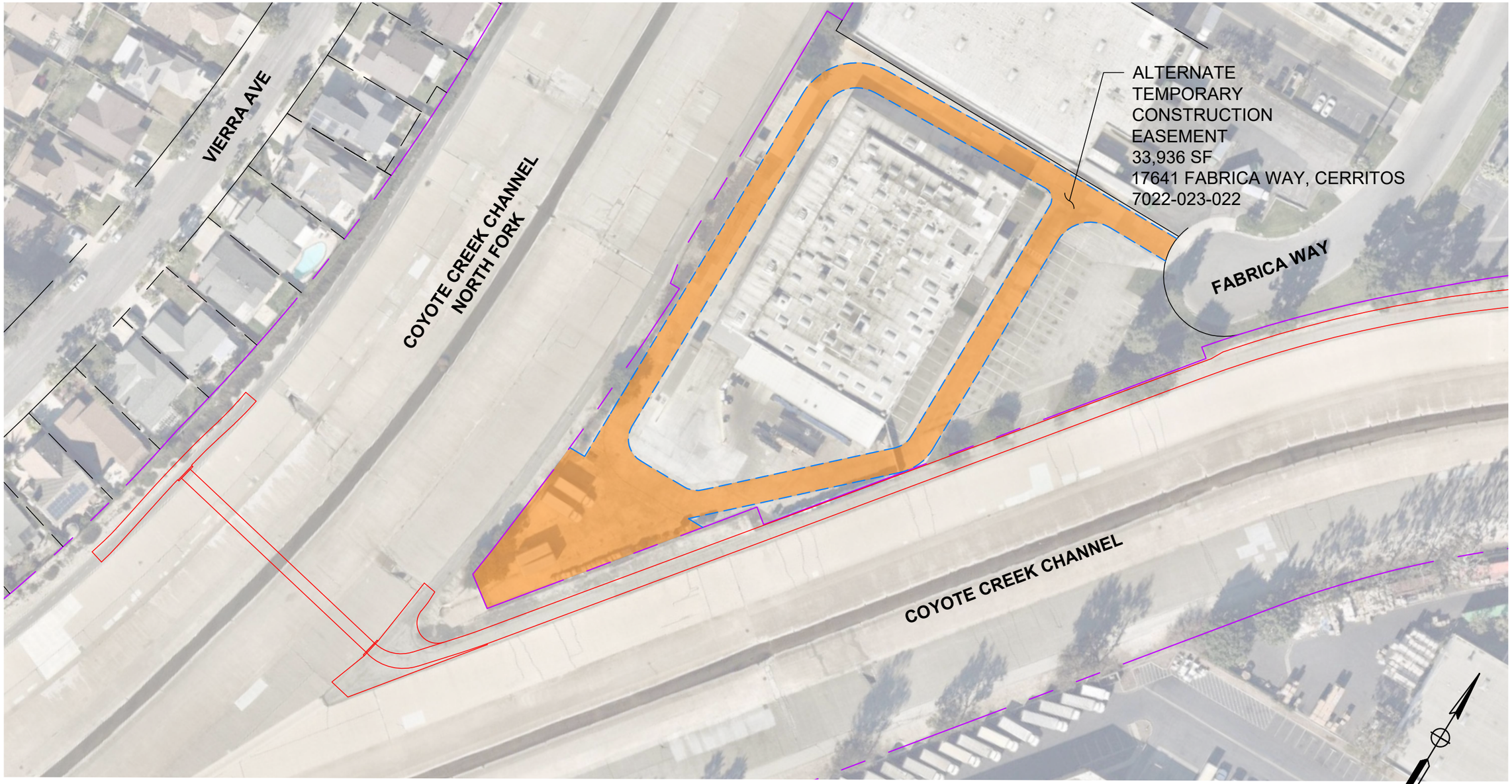
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - BIKEWAY ALONG COYOTE CREEK CHANNEL
INDEX MAP

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=80'

MARK THOMAS

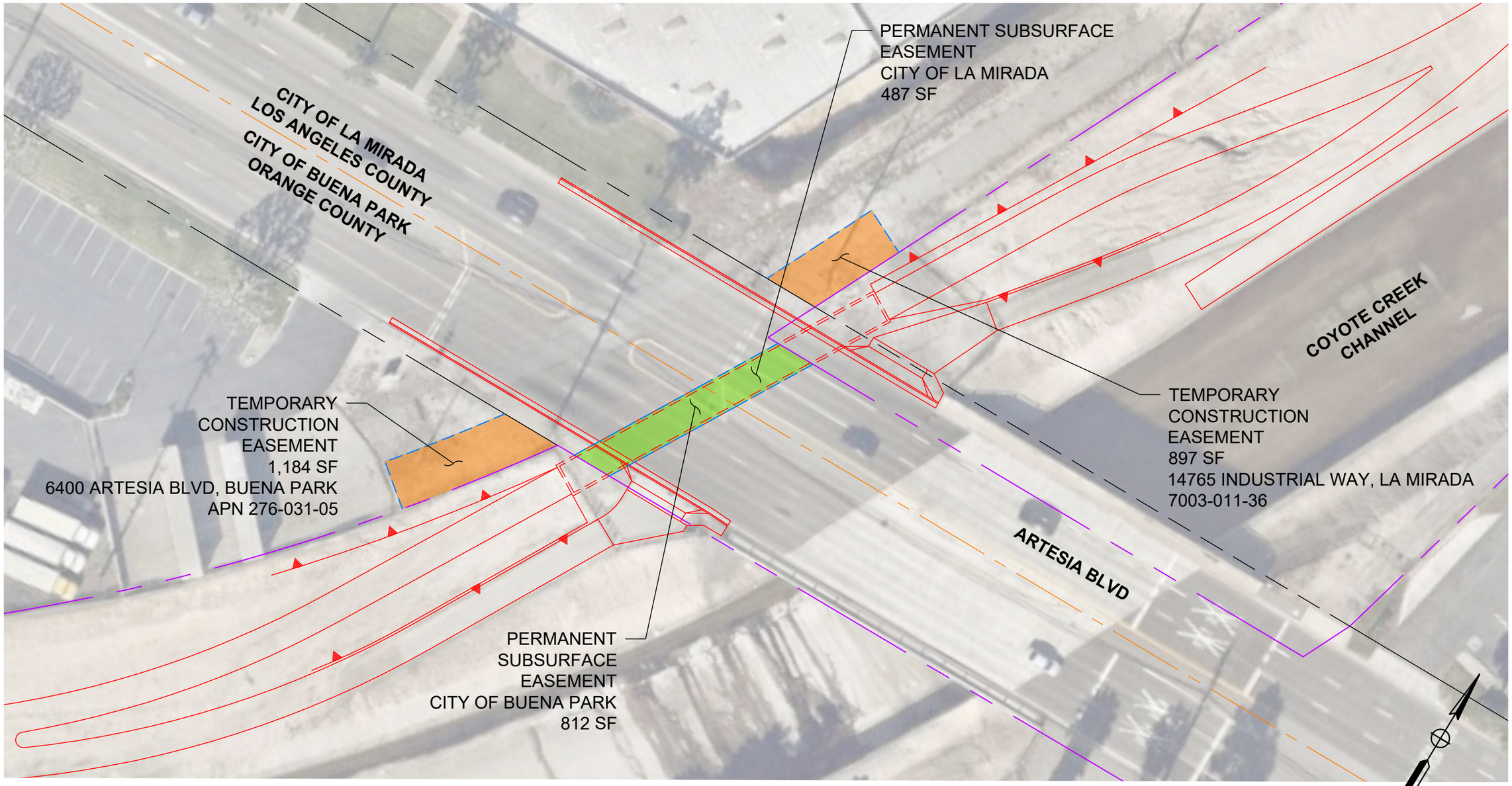
OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - COYOTE CREEK CONFLUENCE WITH NORTH FORK

SHEET 1

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

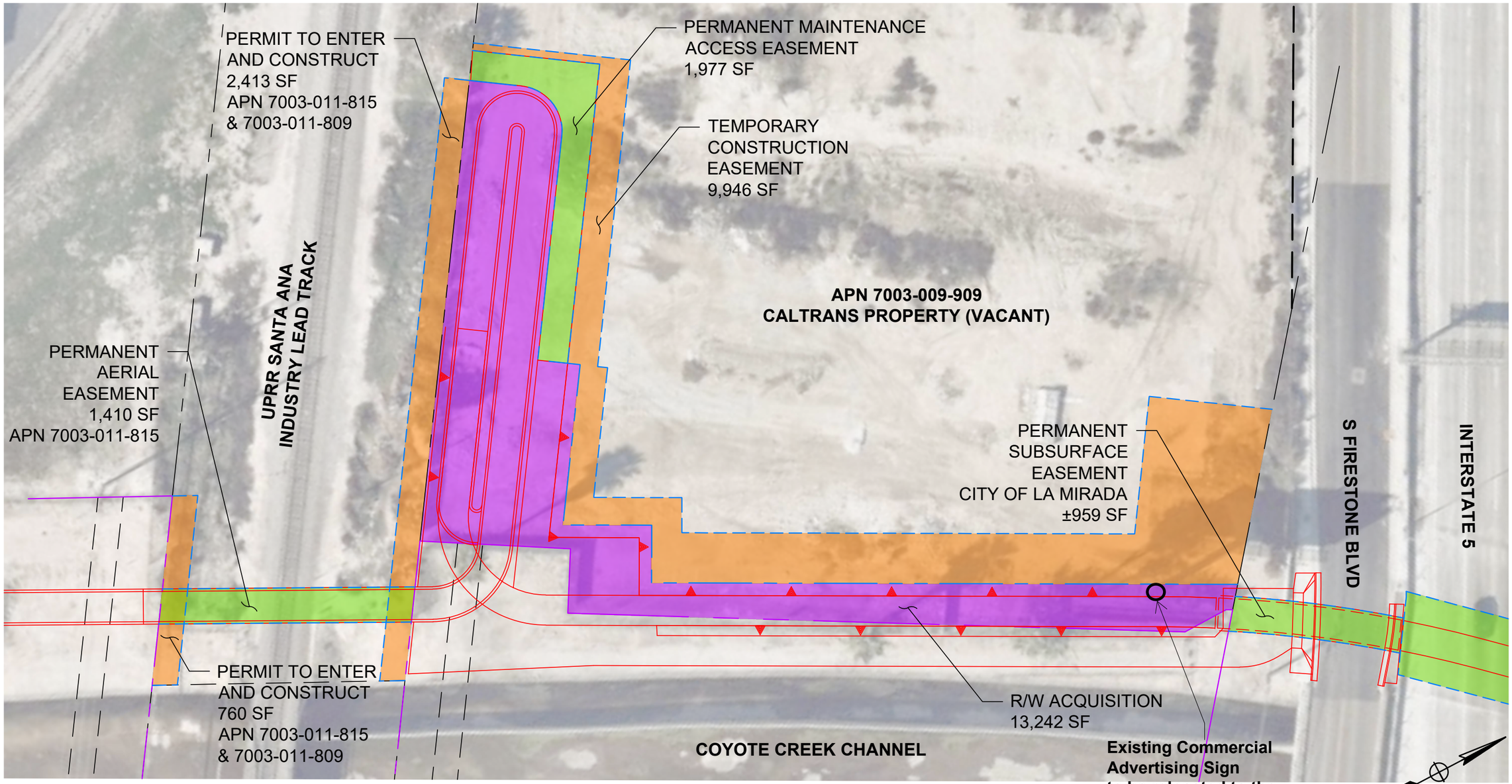
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - ARTESIA BLVD
SHEET 2

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

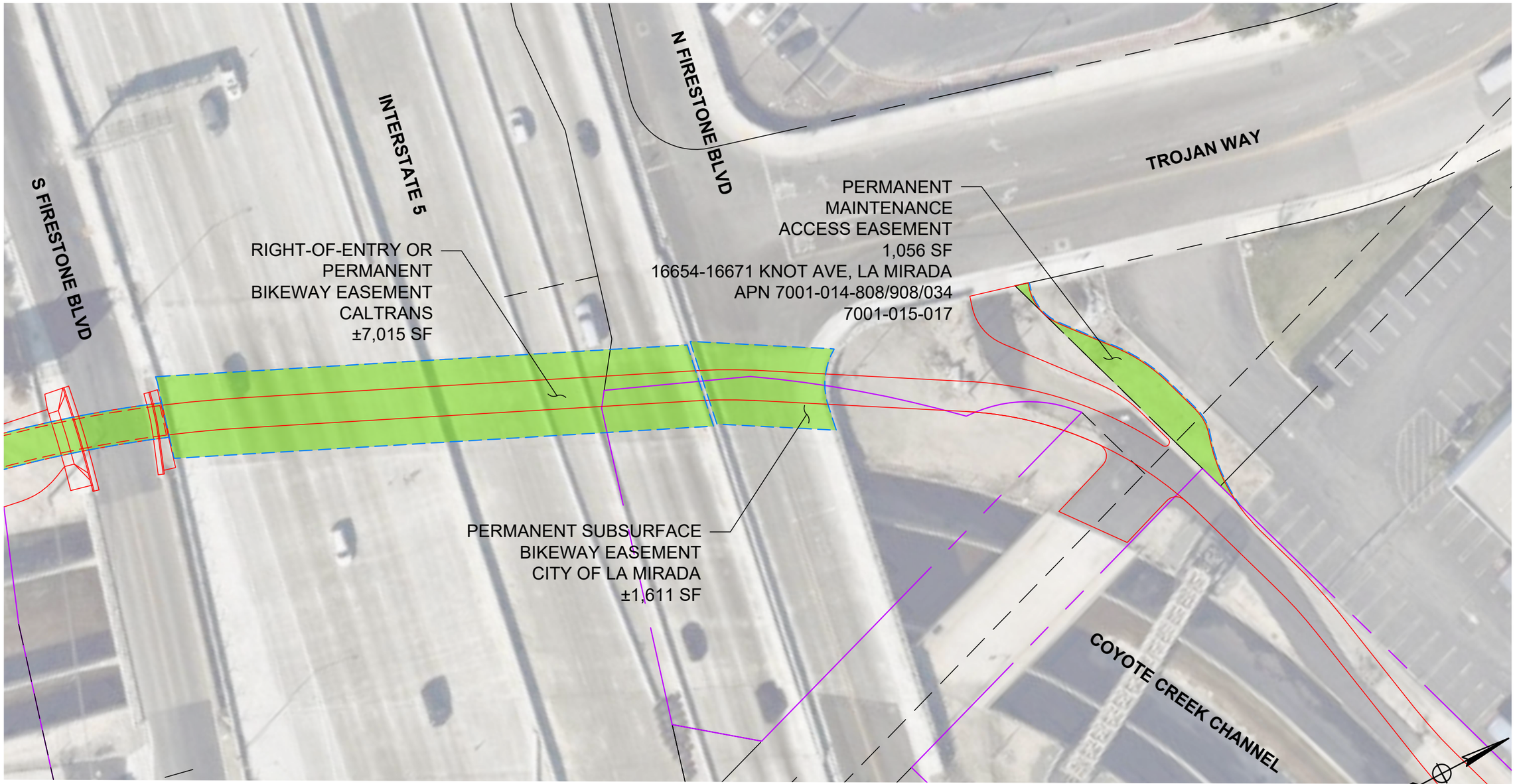
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED RIGHT-OF-WAY & EASEMENTS - UPRR/CALTRANS R/W
SHEET 3

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

MARK THOMAS

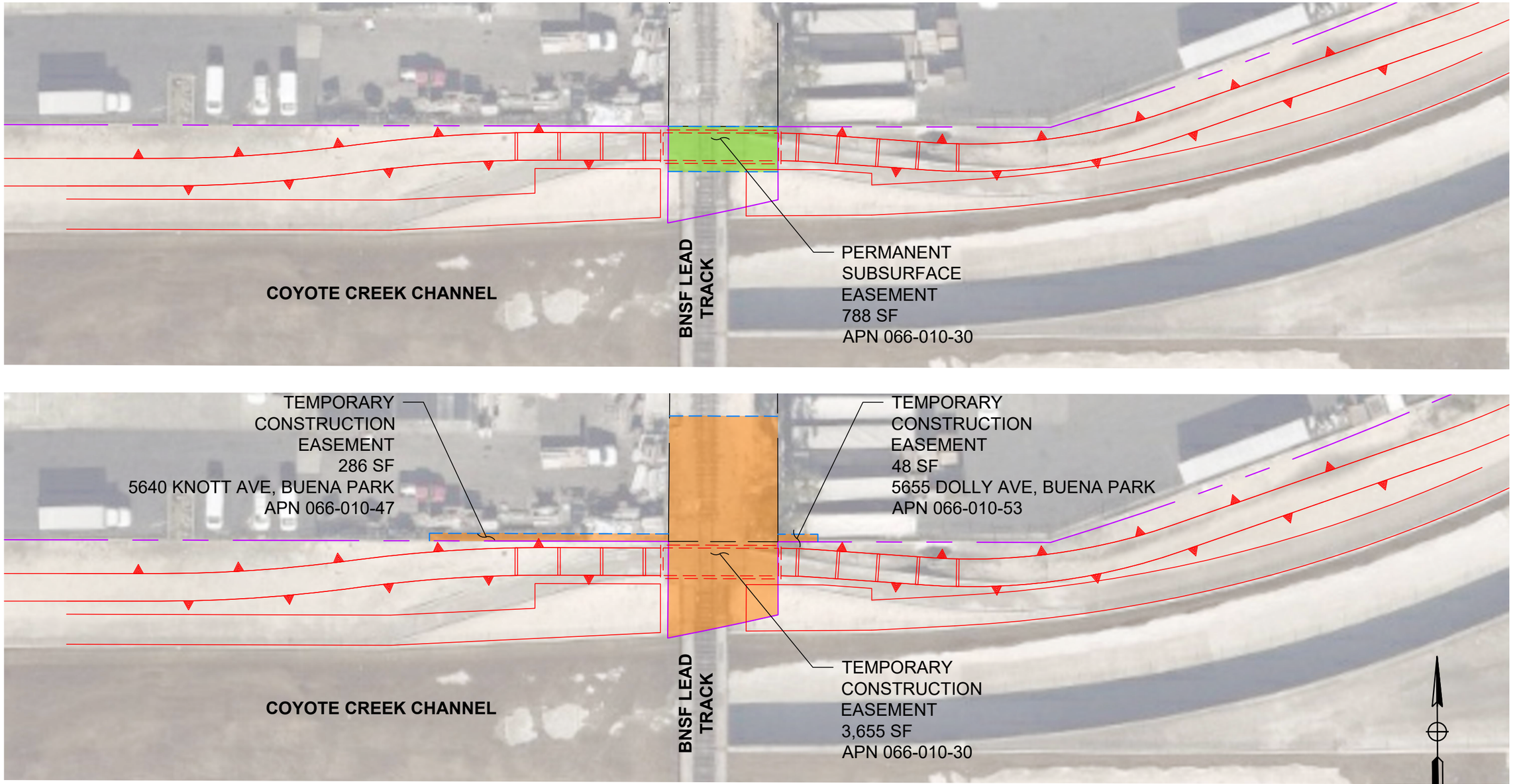
OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - CALTRANS/TROJAN WAY (03/09/2023)

SHEET 4

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

- PROPOSED BIKEWAY
- COUNTY BOUNDARY
- EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

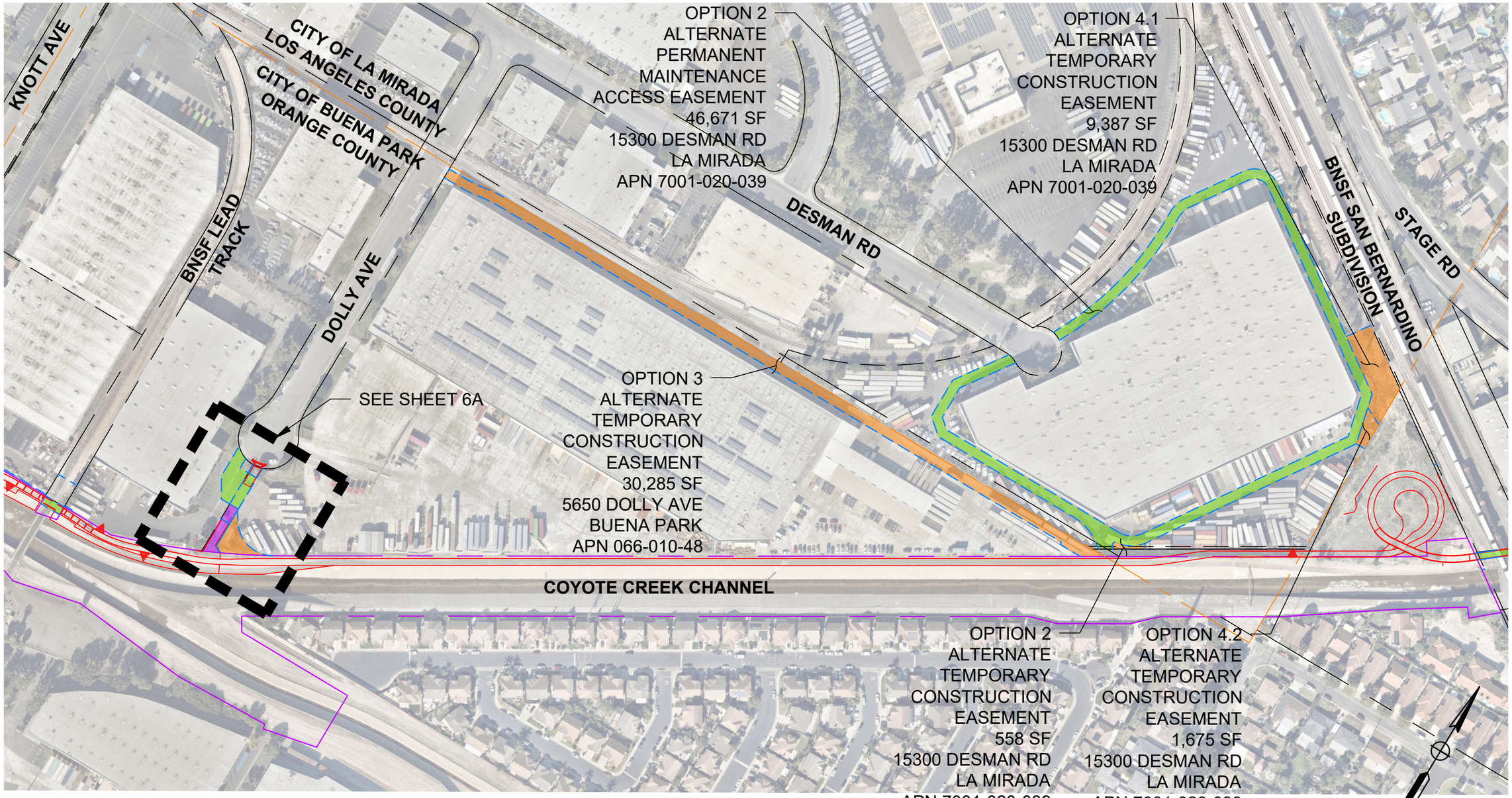
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - BNSF INDUSTRY TRACK
SHEET 5

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

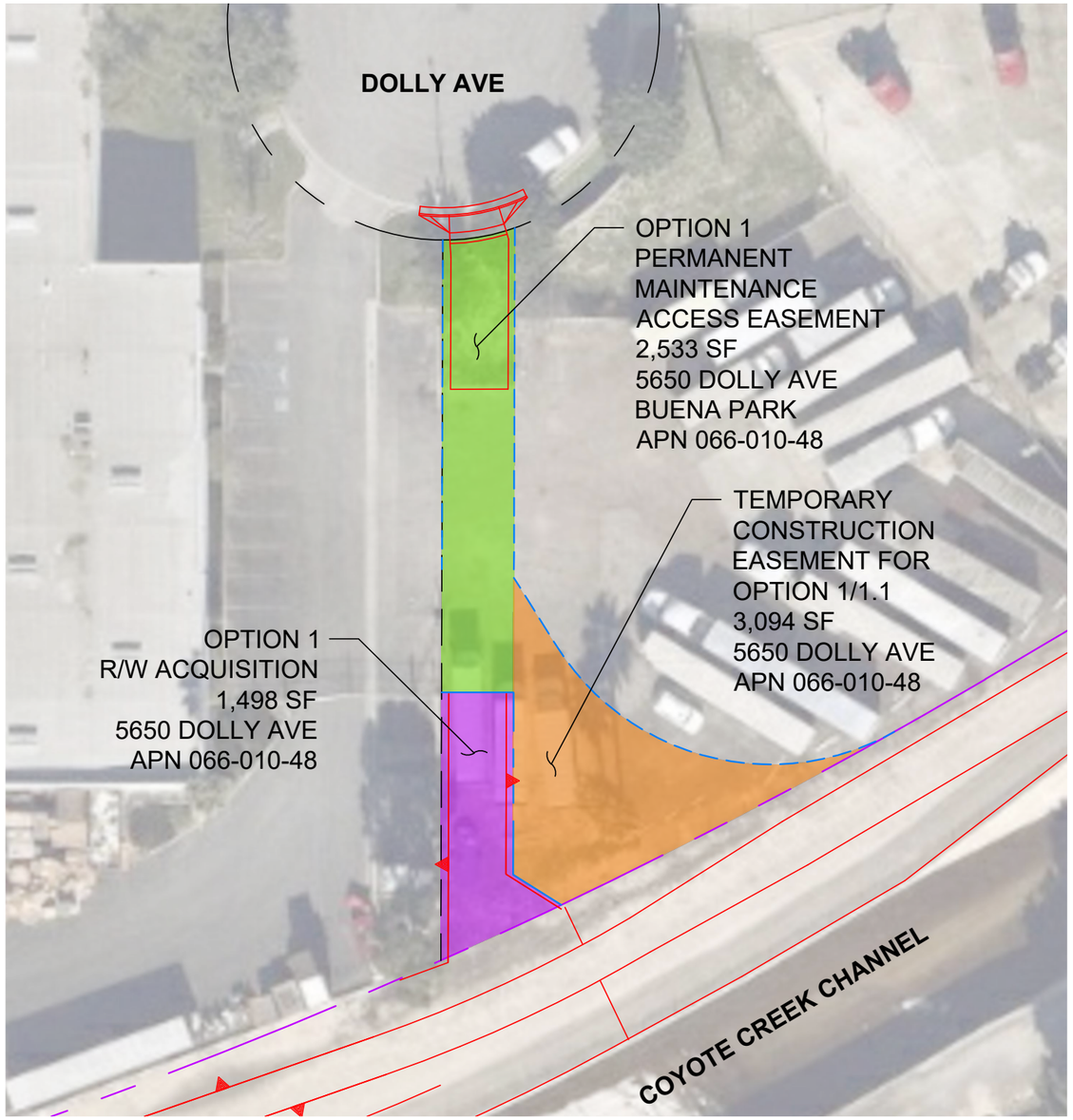
PROPOSED EASEMENT

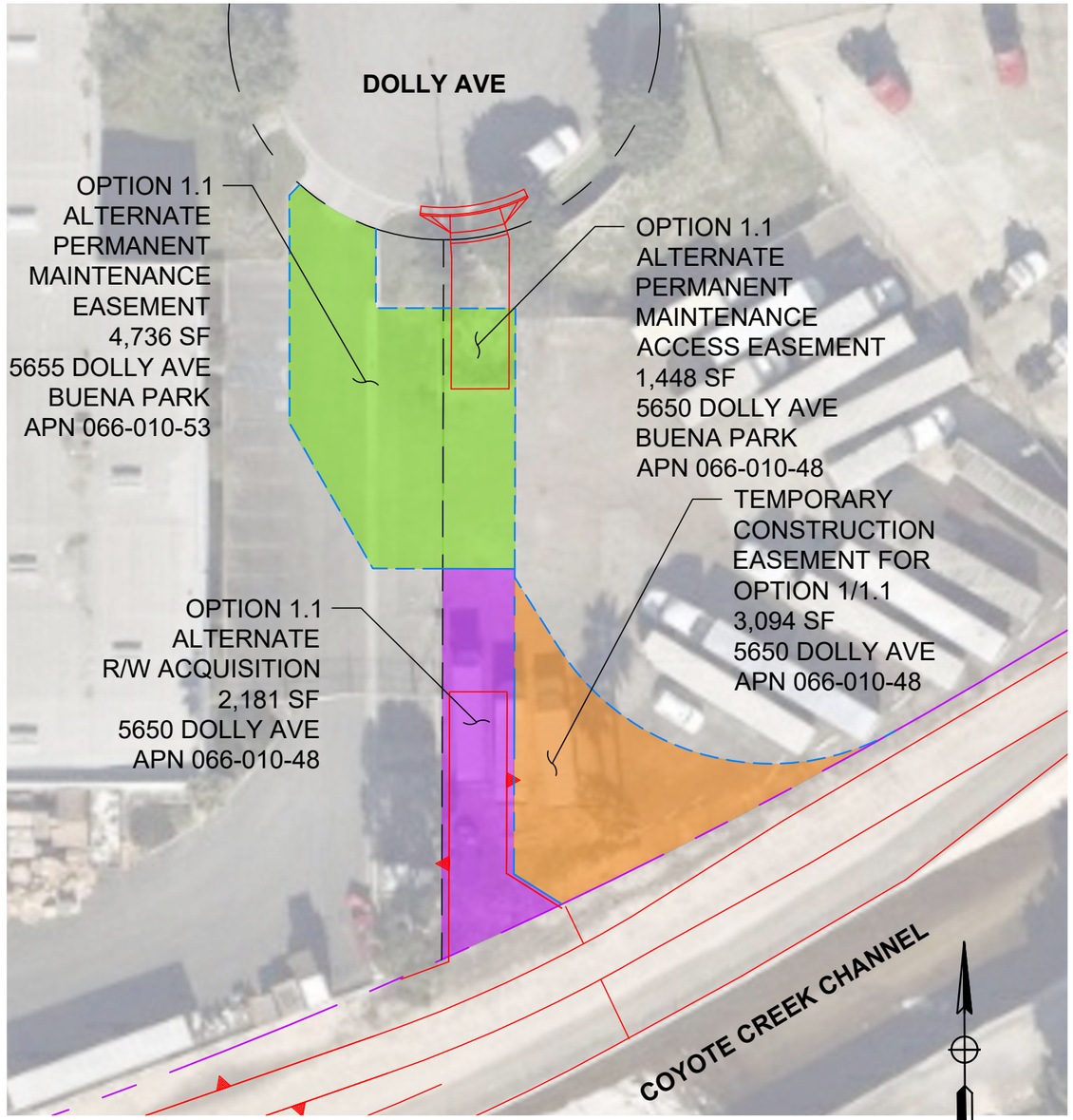
SCALE: 1"=200'

MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - DOLLY AVE/DESMAN RD
SHEET 6





LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

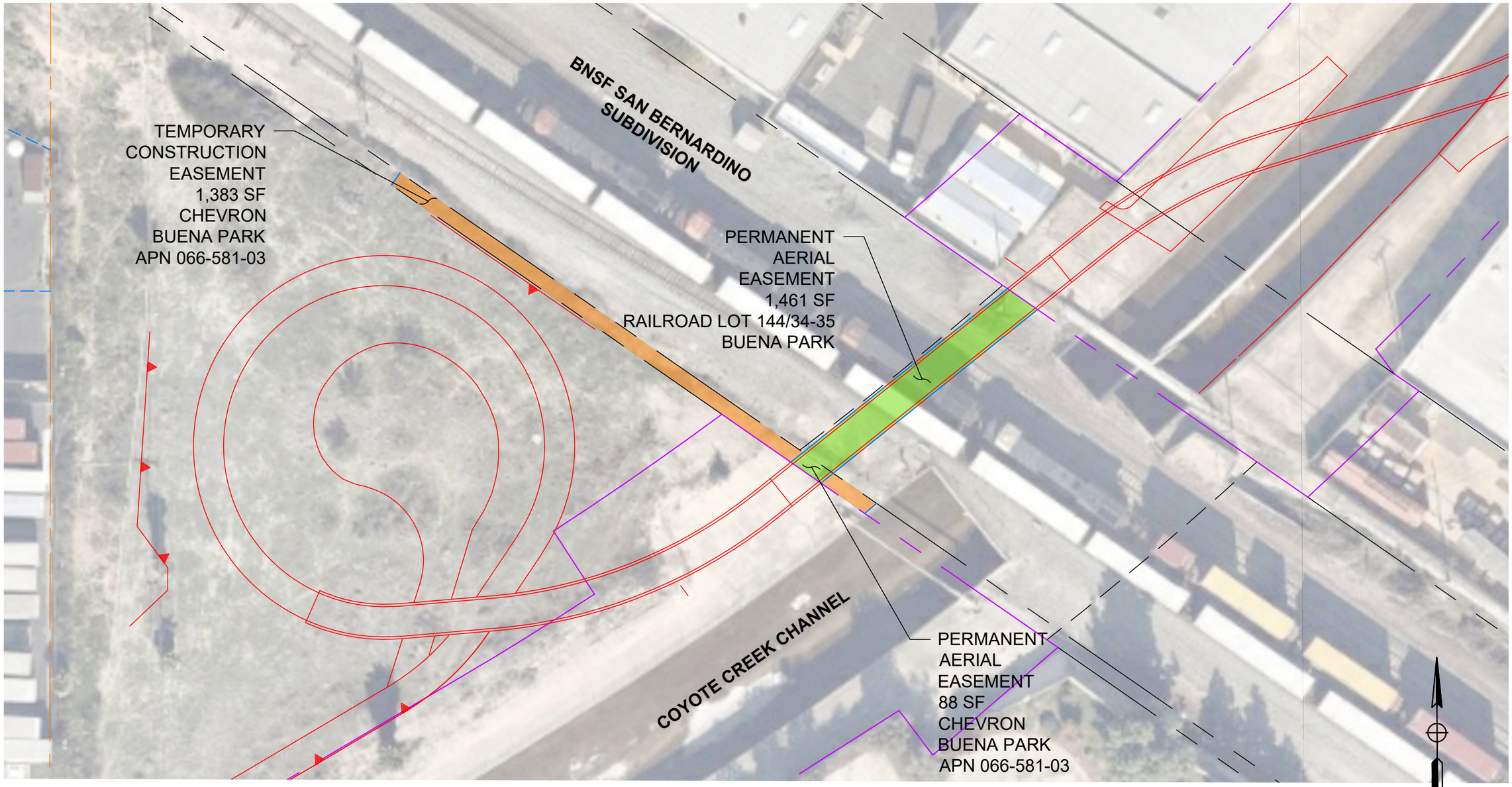
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - DOLLY AVE
SHEET 6A

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

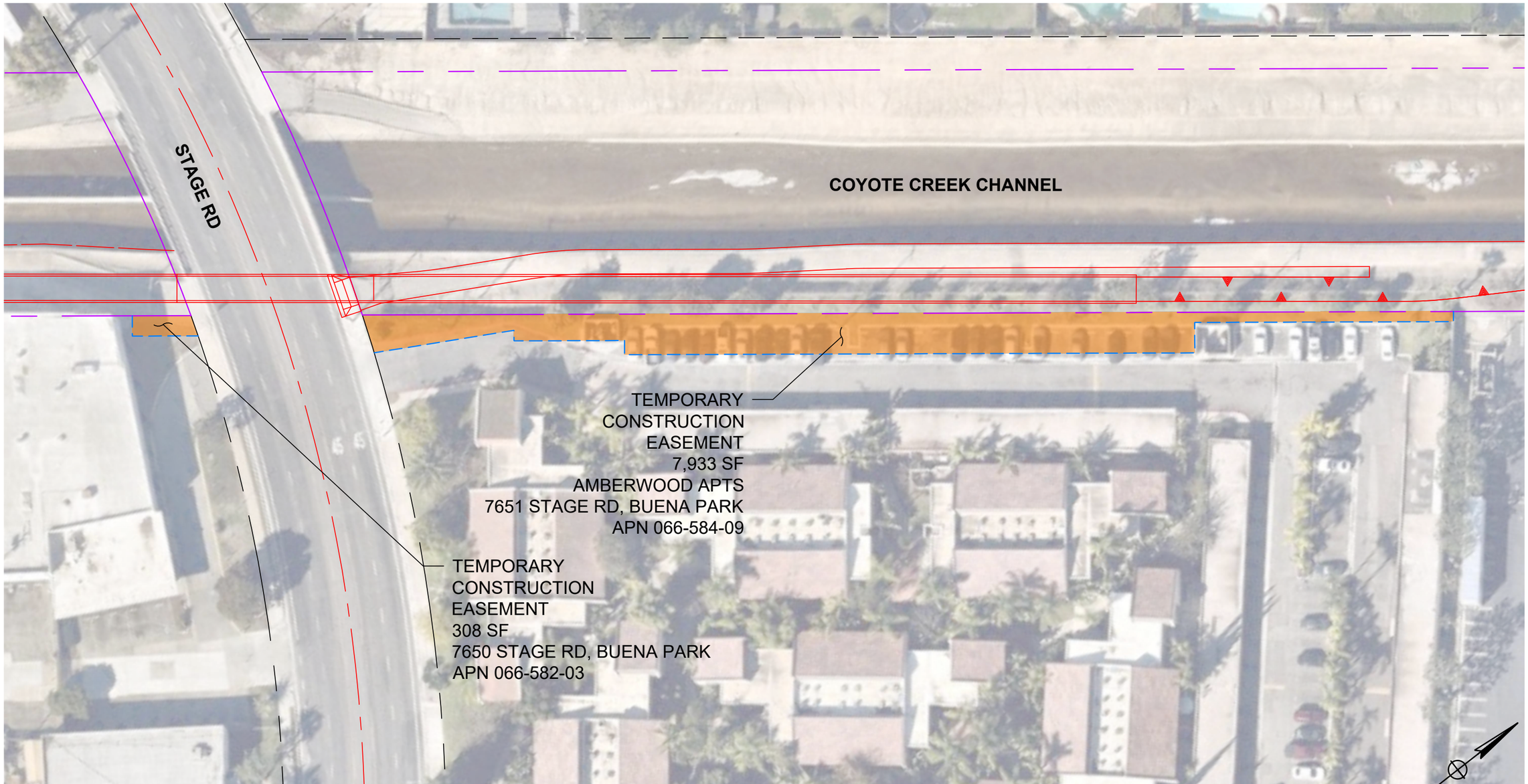
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - BNSF CORRIDOR
SHEET 7

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

6/1/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=50'

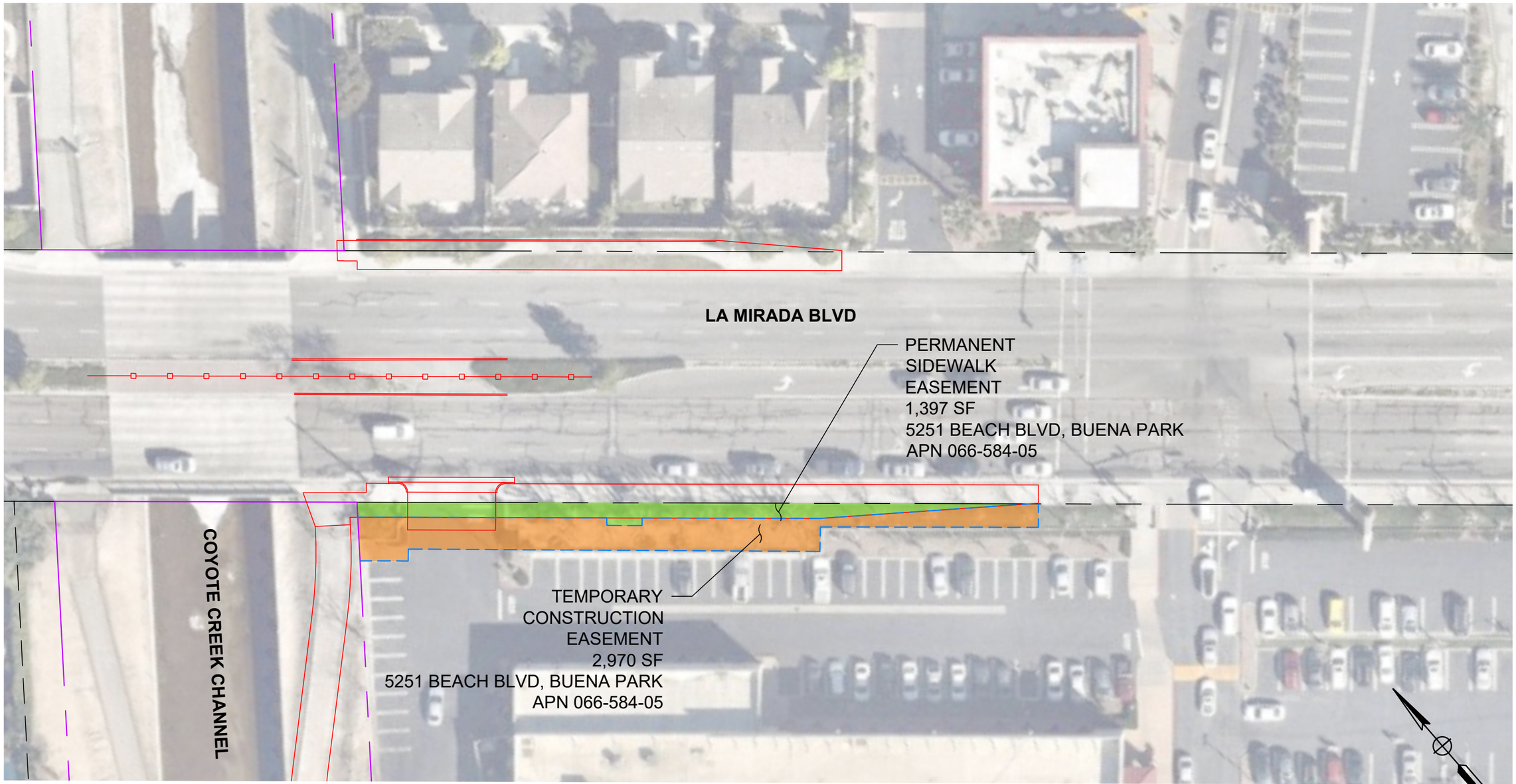
MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - EAST/WEST OF STAGE RD
SHEET 8

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023



LEGEND

PROPOSED BIKEWAY

COUNTY BOUNDARY

EASEMENT (TYPE PER PLAN)

SCALE: 1"=40'

MARK THOMAS

OCPW OC LOOP SEGMENT OPQ

PROPOSED EASEMENTS - LA MIRADA BLVD
SHEET 9

J:\OCPW-22-00112-OC Loop Seg OPQ PS&E\CADD 2022\Exhibits\2022-12-12_Easement Exhibits

5/18/2023

GEOTECHNICAL BORINGS AND ACCESS MAPS

Rose St
de Oro Pl
de Oro Cir
Ashworth St
Vierra Ave
Coyote Creek North Fork Flood Control Channel
Coyote Creek Flood Control Channel
City of Cerritos

Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_NorthFork_2023_02_01.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

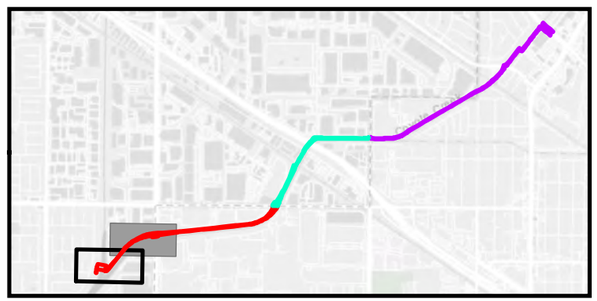


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

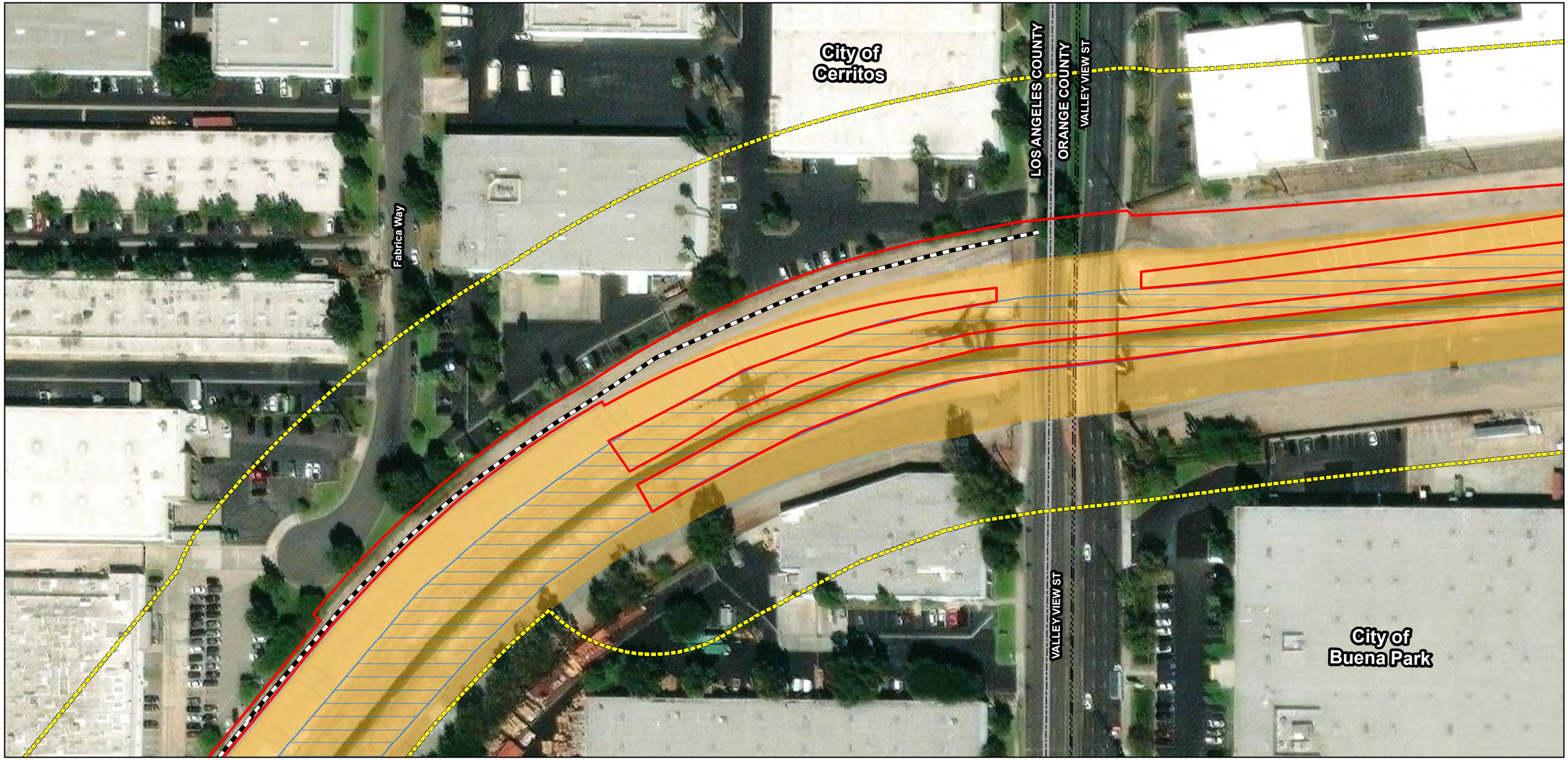
- 408 Permit, Coyote Creek North Fork
- Geotech Access Route
- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek North Fork

Map 1 of 2

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_NorthFork_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

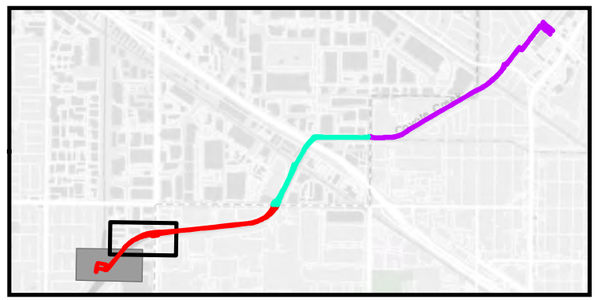


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Geotech Access Route
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek North Fork

Map 2 of 2

UltraSystems
environmental • management • planning

Rose St
de Oro Pl
de Oro Cir
Ashworth St
Vierra Ave
Coyote Creek North Fork Flood Control Channel
Coyote Creek Flood Control Channel
City of Cerritos

Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

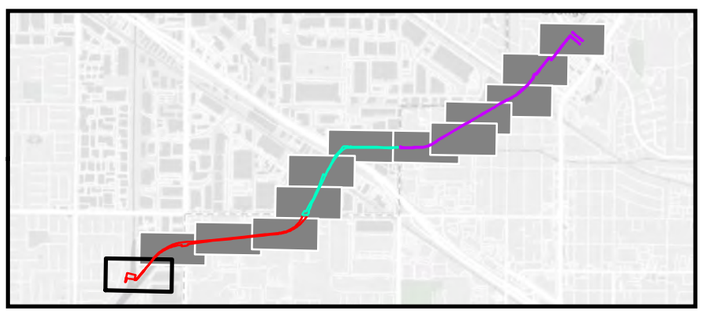


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

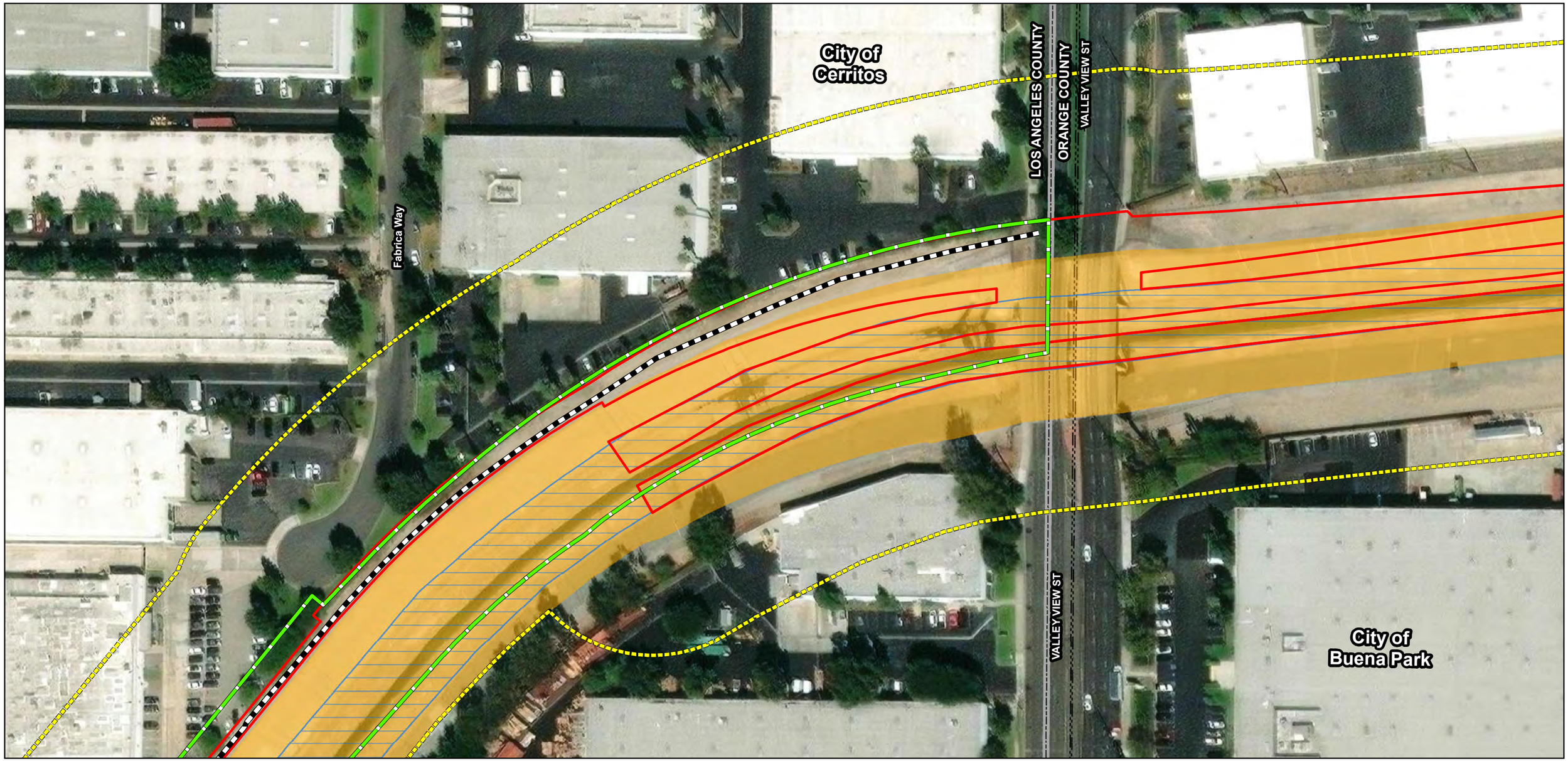
- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 1 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

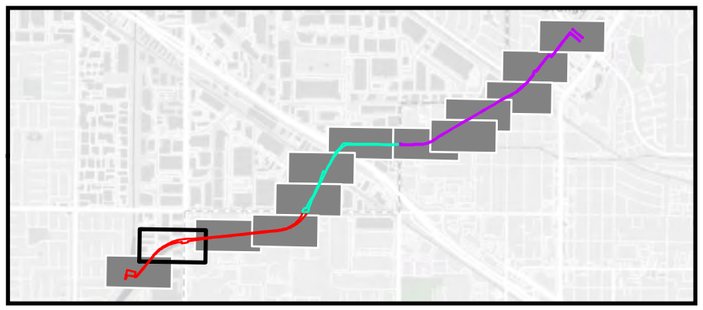


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

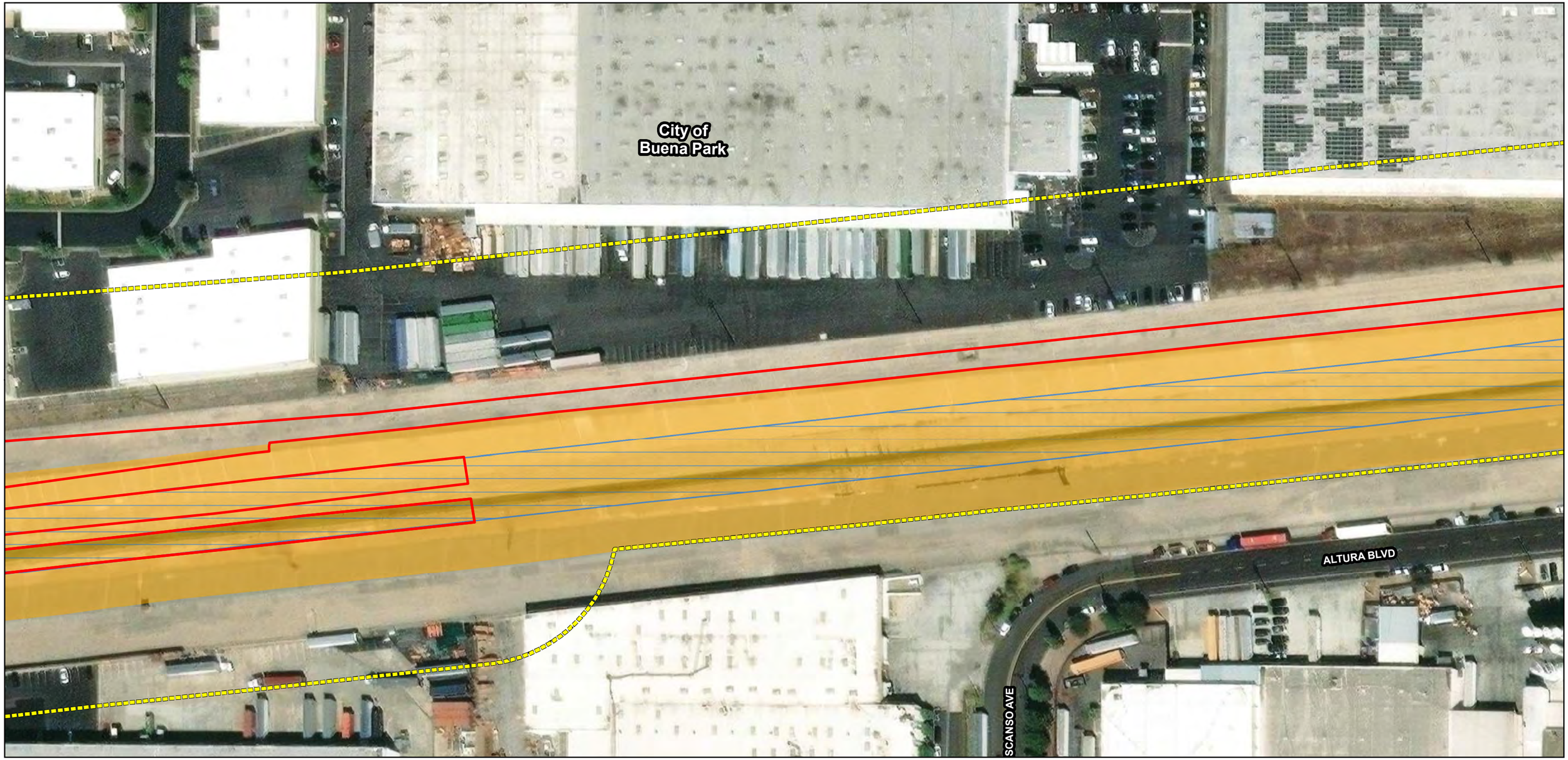
- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 2 of 13

UltraSystems
environmental • management • planning

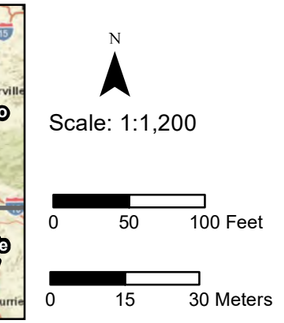


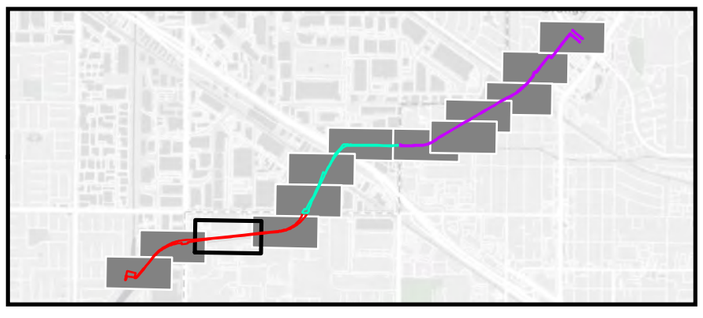
Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023







Legend

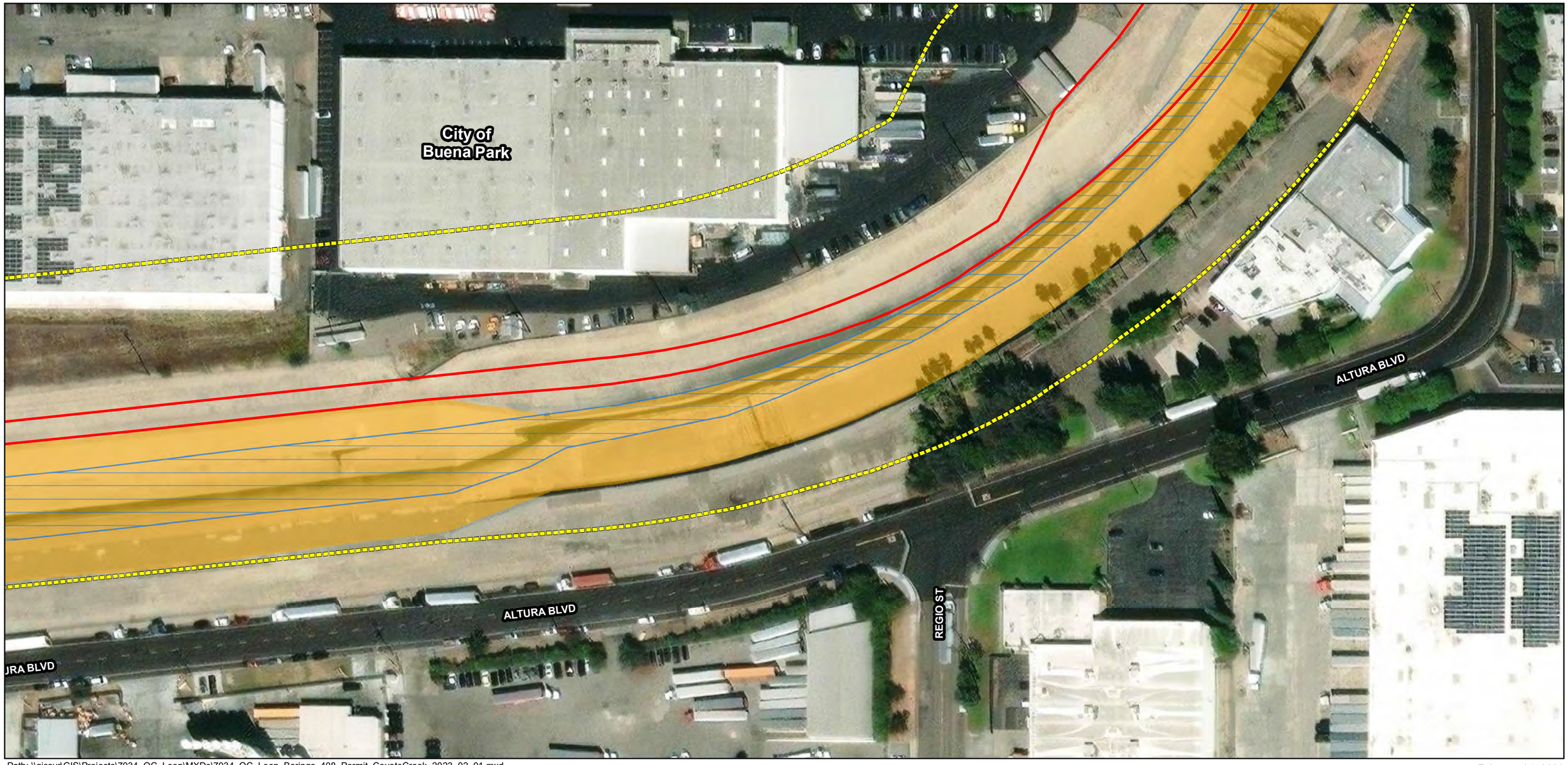
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 3 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

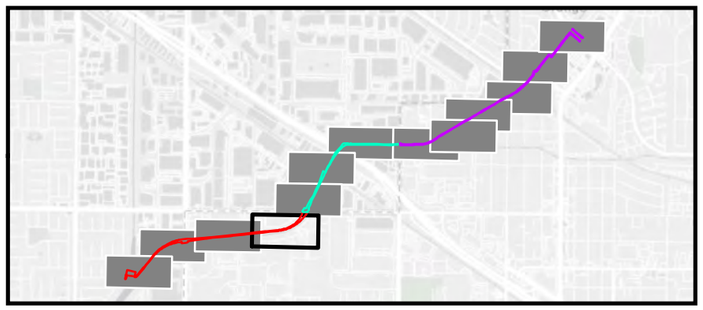


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

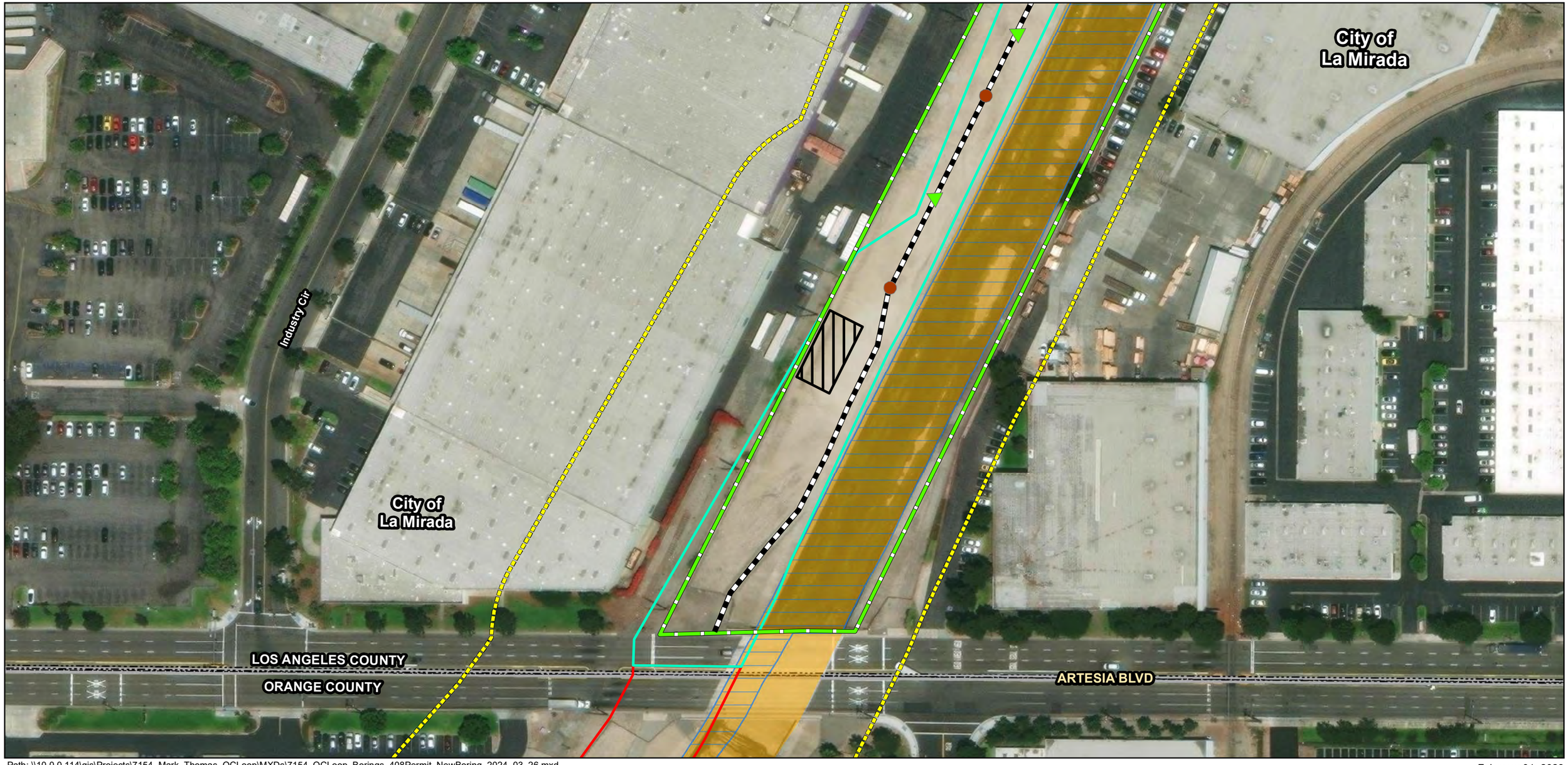
- Segment O
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 4 of 13

UltraSystems
environmental • management • planning



Path: \\10.0.0.114\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_Borings_408Permit_NewBoring_2024_03_26.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

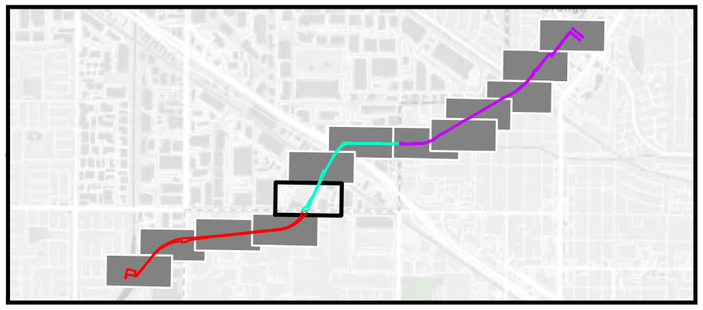


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Geotech Access Route
- 408 Permit, Coyote Creek
- Geotech Staging Area
- Segment O
- Segment P
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 5 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

February 01, 2023

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

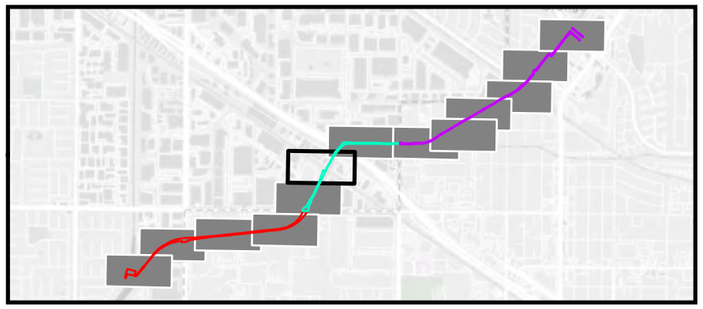


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment P
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 6 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

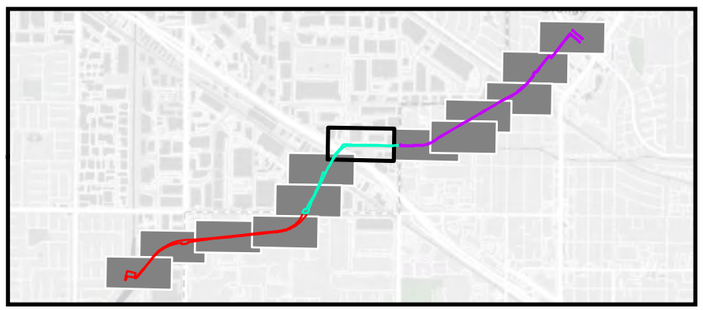


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

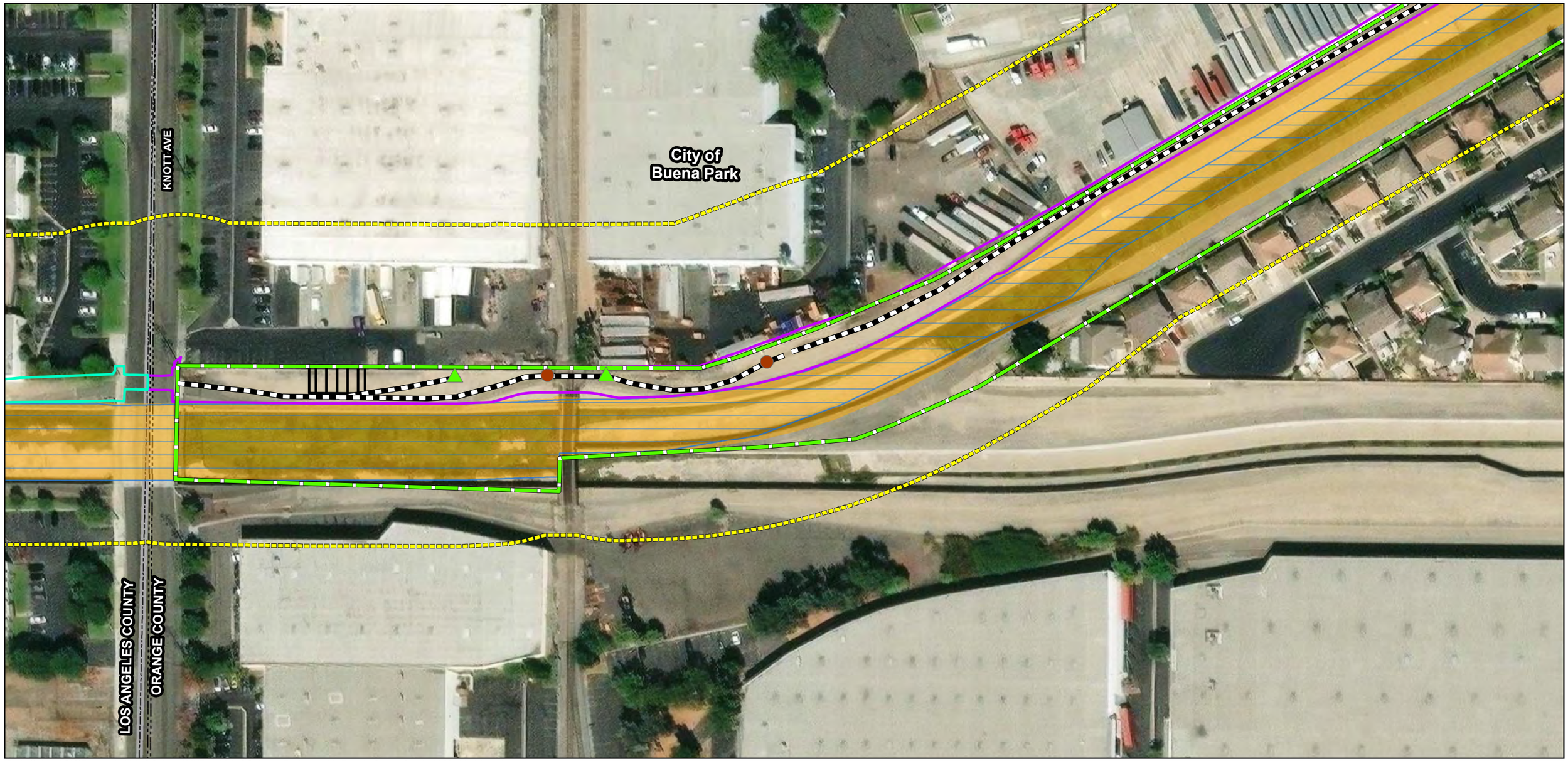
- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment P
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 7 of 13

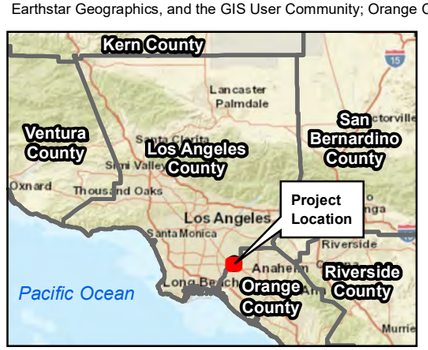
UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

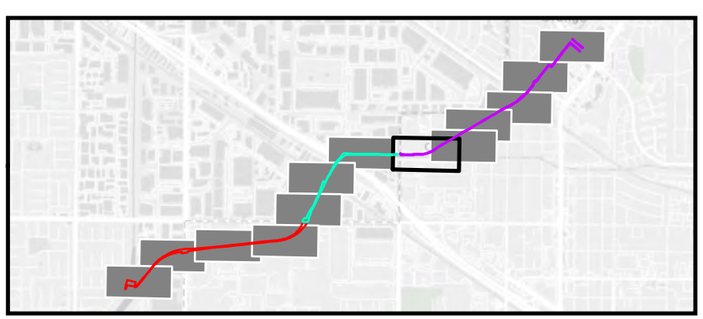


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

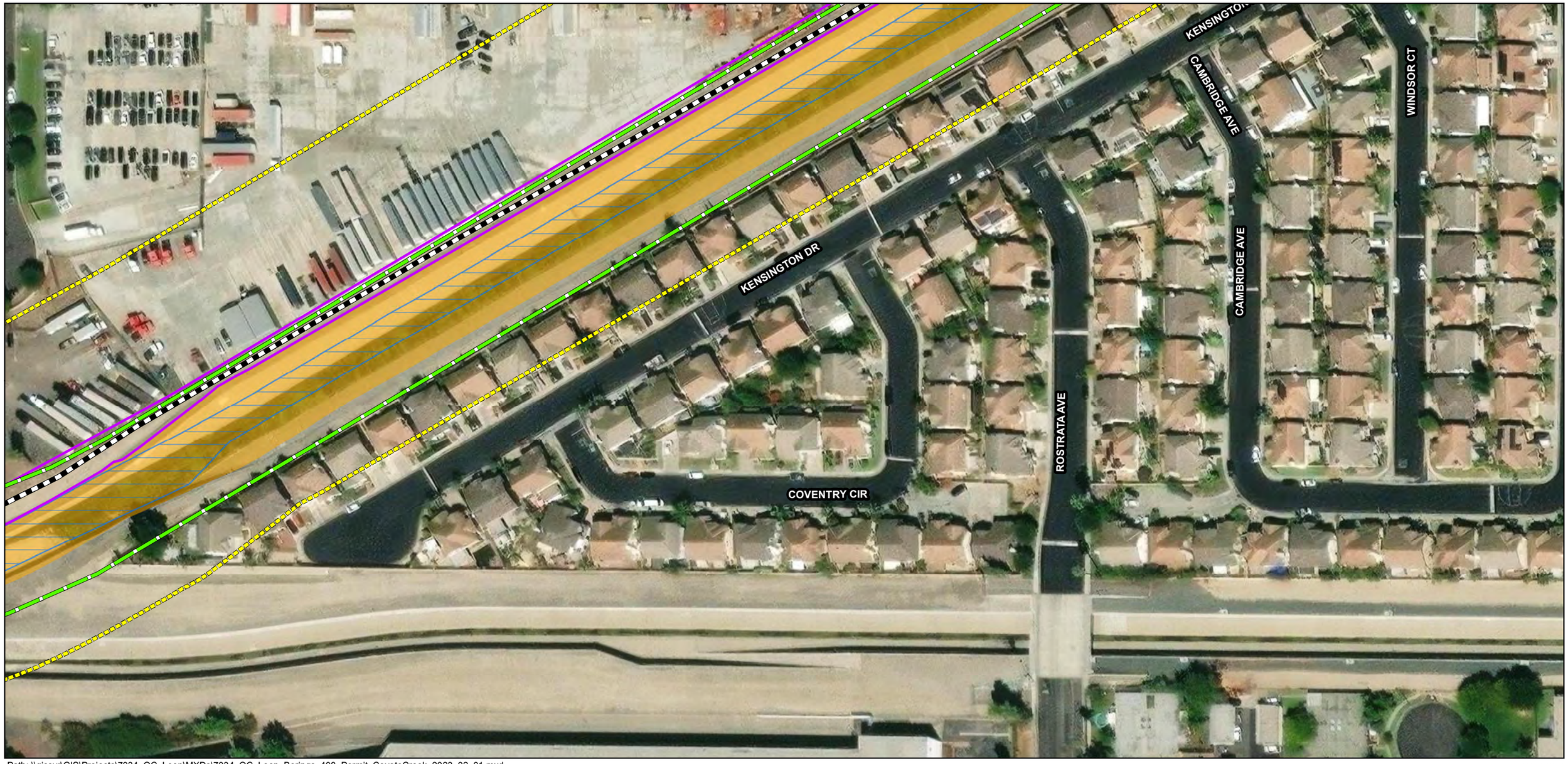
- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Geotech Access Route
- 408 Permit, Coyote Creek
- Geotech Staging Area
- Segment P
- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 8 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023



N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 9 of 13

UltraSystems
environmental • management • planning

City of La Mirada

LOS ANGELES COUNTY

ORANGE COUNTY

City of Buena Park

KENSINGTON DR

CAMBRIDGE AVE

WINDSOR CT

WESTERN AVE

Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

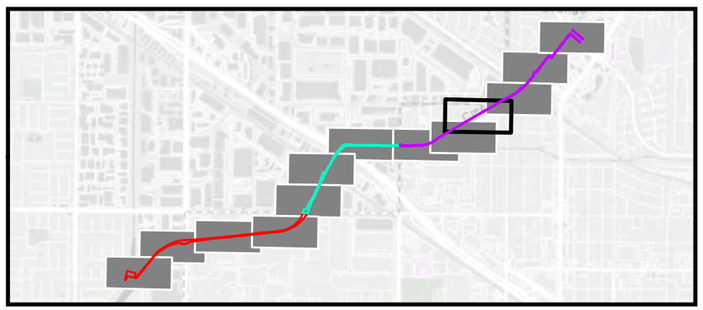


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 10 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

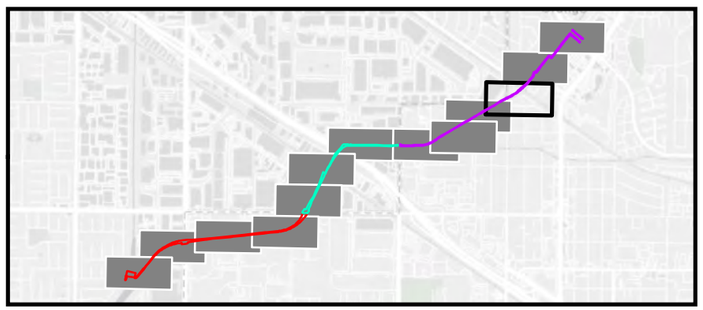


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Geotech Access Route
- 408 Permit, Coyote Creek
- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 11 of 13

UltraSystems
environmental • management • planning

LOS ANGELES COUNTY
ORANGE COUNTY
MCCOMBER RD
GRANADA DR
SAN ARDO DR
MC COMBER RD
STAGE RD
City of Buena Park

Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

February 01, 2023

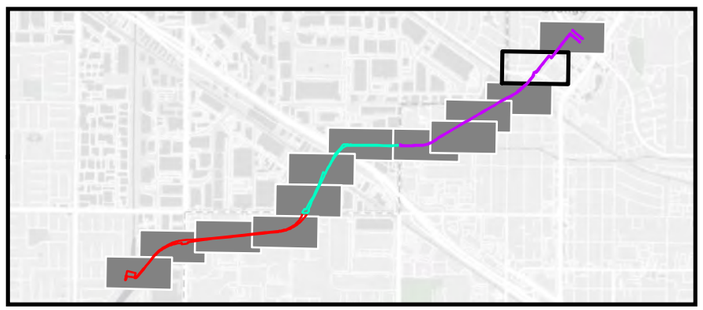


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

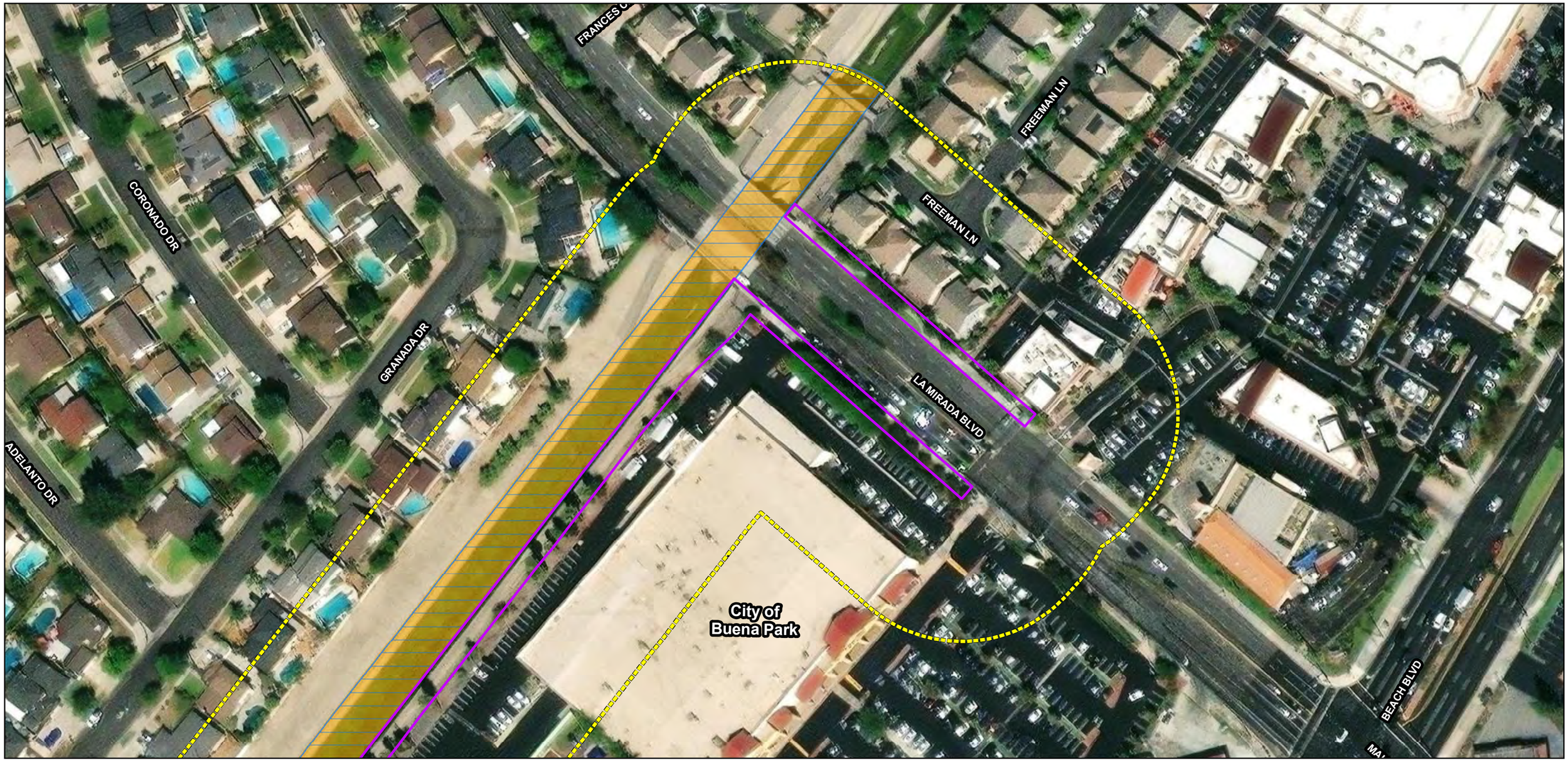
- Proposed Location of Cone Penetrometer Test (CPT) Sounding
- Proposed Location of Geotechnical Boring
- Geotech Access Route
- 408 Permit, Coyote Creek
- Geotech Staging Area
- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 12 of 13

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Borings_408_Permit_CoyoteCreek_2023_02_01.mxd

February 01, 2023

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; UltraSystems Environmental, Inc. 2023.

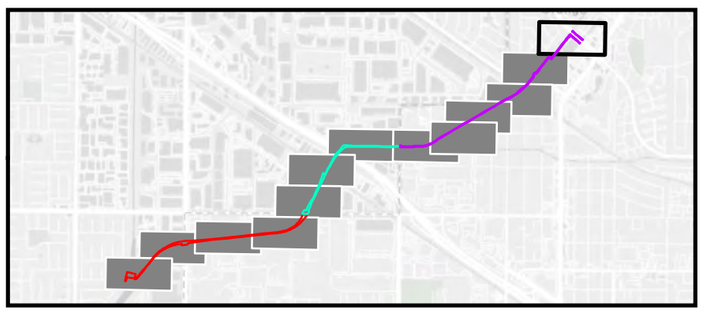


N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- Segment Q
- Waters of the U.S. (OHWM)
- Waters of the State (CDFW TOB)
- 150ft Biological Study Area (BSA)

OC Loop
Segments O, P, and Q

Geotechnical Borings
408 Permit Area
Coyote Creek

Map 13 of 13

UltraSystems
environmental • management • planning

APPENDIX C

IPaC Species List

This page intentionally left blank.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901

In Reply Refer To: 08/19/2024 19:48:30 UTC
Project Code: 2023-0100164
Project Name: OC Loop O, P, Q 2nd Revalidation

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see Migratory Bird Permit | What We Do | U.S. Fish & Wildlife Service (fws.gov).

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

PROJECT SUMMARY

Project Code: 2023-0100164
Project Name: OC Loop O, P, Q 2nd Revalidation
Project Type: Recreation - New Construction
Project Description: OC Loop O, P, Q bike path: Caltrans CE 2nd Revalidation for minor changes
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.8773718,-118.01677765172312,14z



Counties: Los Angeles and Orange counties, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Pacific Pocket Mouse *Perognathus longimembris pacificus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8080	Endangered

BIRDS

NAME	STATUS
California Least Tern *Sternula antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

REPTILES

NAME	STATUS
Southwestern Pond Turtle *Actinemys pallida* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot *Spea hammondii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Salt Marsh Bird's-beak *Cordylanthus maritimus ssp. maritimus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6447	Endangered
Ventura Marsh Milk-vetch *Astragalus pycnostachyus var. lanosissimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1160	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Billye Breckenridge
Address: 16431 Scientific Way
City: Irvine
State: CA
Zip: 92618
Email bbreckenridge@ultrasystems.com
Phone: 9495050945

LEAD AGENCY CONTACT INFORMATION

Lead Agency: County of Orange

APPENDIX D

Pages from Wildlife Special-Status SOP Table

This page intentionally left blank.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA:		Potential For Occurrence in the BSA
				Located Within Species' Distribution and/or Elevation Range (if known)	Contains Suitable Foraging, Roosting, and/or Breeding Habitats	
Sternula antillarum browni (=*Sterna antillarum browni*)	California least tern	FE, SE, fully protected, WL, Season of Concern: nesting colony	They nest in colonies on bare or sparsely vegetated flat substrates, beaches or sandbars near the coast. They forage in nearby shallow water. Typical nesting sites are now on isolated or specially protected sand beaches or on natural or artificial open areas in remnant coastal wetlands. These sites are typically near estuaries, bays, or harbors where small fish are abundant.	Yes (extirpated/possibly extirpated in this area)	No	**No potential to occur.** The BSA is located within this bird's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FT, SE, BCC.	The western yellow-billed cuckoo (cuckoo) is a neotropical migratory bird, whose nesting habitat is restricted to relatively dense growths of trees and shrubs in riparian habitats that lines rivers and streams. They are confined to large blocks, or contiguous areas, of cottonwood-willow riparian forests adjacent to sloughs and slow-moving rivers. Cuckoos have large home ranges, often exceeding 50 acres, and sometimes approaching 100 acres, in extent. Few cuckoos are found in forest habitat of less than 25 acres, and dense, low-level foliage is an important determination of nesting habitat. Sites with less than 40% canopy closure are unsuitable, those with 40%-65% are marginal to suitable, and those with greater than 65% are optimal.	Yes (extirpated/possibly extirpated in this area)	No	**No potential to occur.** The BSA is located within this bird's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species.
Empidonax traillii extimus	southwestern willow flycatcher	FE, SE, Season of Concern: nesting	Southwestern willow flycatcher (SWFLs) breed and forage in relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes (e.g., reservoirs). SWFL suitable habitat contains: surface water, saturated soil, or herbaceous wetland plants present during the early summer months; woody riparian vegetation is present and covers a minimum aerial extent of 20 percent over a 0.5 acre section of floodplain or adjacent streamside terrace; dense clumps or stands of woody vegetation are present. SWFLs also nests in thickets dominated by the non-native tamarisk and Russian olive and in habitats where native and non-native trees and shrubs are present in essentially even mixtures.	Yes	No	**No potential to occur.** The BSA is located within this bird's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species.
Vireo bellii pusillus	least Bell's vireo	FE, SE, Season of Concern: nesting	The least Bell's vireo (LBV) is a migratory songbird restricted to willow dominated riparian woodlands. LBVs primarily occupy willow-dominated riverine riparian habitats with well-developed overstories, understories, and low densities of aquatic and herbaceous cover. The understory frequently contains dense subshrub or shrub thickets 3-6 feet off the ground. LBV are associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, but also inhabits thickets along dry, intermittent streams. On the desert slopes mesquite (*Prosopis* sp.) and sandbar willow in canyon locations may be occupied.	Yes	No	**No potential to occur.** The BSA is located within this bird's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species.
Riparia riparia	bank swallow	ST, Season of Concern: nesting	In California, bank swallows rely on naturally eroding habitats of major lowland river systems. The species nests in colonies and creates nests by burrowing into vertical banks consisting of fine-texture soils. Bank swallows are restricted to where sandy, vertical bluffs or riverbanks are available for the birds to dig their burrows and nest in colonies. The birds build nests within two to three-foot deep burrows that are dug perpendicularly into near vertical earthen banks along streams, coastal bluffs, and sand and gravel pits.	Yes (extirpated/possibly extirpated in this area)	No	**No potential to occur.** The BSA is located within this bird's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species.
Polioptila californica californica	coastal California gnatcatcher	FT, SSC,	The coastal California gnatcatcher (CAGN) is a small, non-migratory, permanent resident of coastal sage scrub habitat, which is a broad category of vegetation that includes the following plant communities; Venturan coastal sage scrub, Diegan coastal sage scrub, maritime succulent scrub, Riversidean sage scrub, Riversidean alluvial fan sage scrub, southern coastal bluff scrub, and coastal sage-chaparral scrub. In addition to coastal sage scrub, CAGNS use chaparral, grassland and riparian habitats next to coastal sage scrub, but these habitats are	Yes	No	**No potential to occur.** The BSA is located within this bird's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA: Located Within Species' Distribution and/or Elevation Range (if known)	The BSA: Contains Suitable Foraging, Roosting, and/or Breeding Habitats	Potential For Occurrence in the BSA
			used for dispersal and foraging, especially in the non-breeding season.			
Passerculus sandwichensis beldingi	Belding's savannah sparrow	SE	They are associated with coastal salt marshes in the upper intertidal marsh zone, which is above flood level except during very high spring tides. They forage on nearby mud flats, shorelines, and rock jetties.	Yes	No	**No potential to occur.** The BSA is located within this bird's known distribution; however it does not contain suitable foraging or breeding habitats to support this species.
Agelaius tricolor	tricolored blackbird	ST, SSC, BCC, Season of Concern: nesting colony	The tricolored blackbird breeds near fresh water, preferably in emergent wetland with tall, dense cattails (*Typha* sp.) or tules, but also in thickets of willow, blackberry, wild rose, tall herbs and forages in grassland and cropland habitats. Breeding colonies may attract thousands of birds to a single site. These colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland. The species is not migratory, but is nomadic and highly colonial.	Yes	No	**No potential to occur.** The BSA is located within this bird's known distribution; however it does not contain suitable foraging or breeding habitats to support this species.
Listed Mammals						
Perognathus longimembris pacificus	Pacific pocket mouse	FE, SSC,	It is believed that the Pacific pocket mouse is adapted to several similar coastal habitats with open, shrubby vegetation, including coastal strand, coastal dunes, weedy vegetation on river alluvium, and open coastal sage scrub. For burrowing, it requires areas with fine-grained, sand soil and alluvial sands near the ocean.	No	No	**No potential to occur.** The BSA is located outside of this mammal's distribution and does not contain suitable foraging or breeding habitats to support this species.
Sensitive Wildlife: These animals have no official status under the ESA and/or the CESA; however they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations.						
Sensitive Invertebrates						
Cicindela gabbii	western tidal-flat tiger beetle	G2G4 S1	Found in salty coastal habitats including salt marshes, tidal flats, and beaches.	Yes (extirpated/possibly extirpated in this area)	No	**No potential to occur.** The BSA is located within this invertebrate's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species.
Danaus plexippus pop. 1	monarch - California overwintering population	G4 S2S3	Their roosts are located in wind-protected tree groves (eucalyptus [Eucalyptus sp.], Monterey pine [Pinus radita], cypress), with nectar and water resources nearby. Monarch butterflies lay their eggs exclusively on milkweed, which larva feed on them.	Yes	No	**No potential to occur.** The BSA is located within this invertebrate's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species
Sensitive Amphibians						
Spea hammondii	western spadefoot	SSC,	May be found in coastal sage scrub, open chaparral, pine-oak woodlands and grassland habitats, but is most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas. Within these habitats, they require rain pools/vernal pools in which to reproduce and that persist with more than three weeks of standing water in which to metamorphose successfully. They can also breed in slow-moving streams (e.g., areas flooded by intermittent streams). Water breeding sites must lack fish, bullfrogs, and crayfish in order for to successfully reproduce and metamorphose. They estivate in sandy, gravelly soil in upland habitats adjacent to potential breeding sites in burrows approximating 1 meter in depth.	Yes	No	**No potential to occur.** The BSA is located within this amphibian's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species A CNDDB Inquiry within 10 miles of the BSA showed 7 *Spea hammondii* observations. The most recent observation was on April, 2010, approximately 6.38 miles away; the closest observation was in 1978, approximately 1.6 miles away.
Sensitive Reptiles						
Emys marmorata	western pond turtle (=northern western pond	SSC	Requires stagnant or slow-moving water in aquatic habitats. Uncommon in high gradient streams. Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail (*Typha* sp.) mats, and exposed banks are required for basking. May enter brackish water and even seawater.	Yes	No	**No potential to occur.** The BSA is located within this reptile's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species

Scientific Name (=Synonym)	Common Name (=Synonym)	Status	General Habitat Descriptions in California	The BSA: Located Within Species' Distribution and/or Elevation Range (if known)	The BSA: Contains Suitable Foraging, Roosting, and/or Breeding Habitats	Potential For Occurrence in the BSA
	turtle)					A CNDDB Inquiry within 10 miles of the BSA showed 7 *Emys marmorata* observations. The most recent observation was on July 24, 2013, approximately 8.56 miles away; the closest observation was in the 1980's, approximately 0.75 miles away.
Anniella stebbinsi	southern California legless lizard	SSC	They are generally found south of the transverse ranges to northwestern Baja California. There are disjunct populations in the Tehachapi and Piute mountain in Kern County. The southern California legless lizard lives mostly underground, burrowing in loose sandy soil (preferably moist). It forages in loose soil, and leaf litter during the day. It is found in a variety of habitats such as coastal sand dune, sandy washes, alluvial fans	No	No	**No potential to occur.** The BSA is located outside of this reptile's distribution and does not contain suitable foraging or breeding habitats to support this species
Phrynosoma blainvillii	Blainville's horned lizard (=coast horned lizard)	SSC,	Found in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (e.g., floods, fire, roads, grazed areas, fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	Yes	No	**No potential to occur.** The BSA is located within this amphibian's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species
Aspidoscelis tigris stejnegeri	San Diegan whiptail (=coastal whiptail)	SSC	The coastal western whiptail is found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage such as deserts, chaparral and semiarid. Also found in woodland and riparian areas. The western whiptail probably occurs in oak woodlands because they have been detected in riparian areas. The western whiptail can be found in open, often rocky areas with little vegetation or sunny microhabitats within shrub or grassland associations. The ground may be firm soil, sandy, or rocky.	Yes	Yes	**Present.** A San Diegan whiptail was observed within the BSA (but outside the project footprint). It was observed east of 15250 Desman Road, La Mirada, CA.
Sensitive Birds						
Ardea herodias	great blue heron	Season of Concern: nesting colony	Common in shallow estuaries and fresh and saline emergent wetlands. Less common along riverine and rocky marine shores, in croplands, pastures, and in mountains above foothills. Feed in shallow water or open fields. Perches and roosts in secluded tall trees. Also perches on kelp beds offshore. For nesting, prefers secluded groves of tall trees near shallow-water feeding areas. Usually nests in colonies in tops of secluded large snags or live trees, usually among the tallest available; rarely nests on ground, rock ledges, sea cliffs, mats of tules, or shrubs.	Yes	Yes	**Low potential to occur as a short term transient.** The BSA is located within this bird's known distribution and contains a limited amount of foraging /breeding habitats or contains marginal foraging/breeding habitats. Any occurrence would most likely be restricted to using the BSA for short term foraging, cover, or shelter.
Buteo regalis	ferruginous hawk	WL, BCC, Season of Concern: wintering	The ferruginous hawk does not breed in California. The ferruginous hawk is found in California only as winter visitor or a migrant. They generally arrive in California in September and depart by mid-April. They are found in large, open dry country such as grasslands, shrub-steppes, sagebrush flats, desert scrub, saltbush-greasewood shrublands, and outer edges of pinyon-pine/juniper and other forests. They avoid high elevations, narrow canyons, and interior regions of forests. In winter, these hawks prefer open terrain, grasslands of plains and foothills, agricultural, and arid areas with an abundance of prey species. Trees, utility poles, towers, fence posts, rocky outcrops, cliffs, and ground are perching substrates used by ferruginous hawks.	Yes	No	**No potential to occur.** The BSA is located within this bird's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species.
Athene cunicularia	burrowing owl	SSC, BCC, Season of Concern: burrowing sites	The burrowing owl (BUOW) is a small, ground-inhabiting owl. Typical BUOW habitat is open, dry, flat ground or low rolling hills with sparse vegetation and available burrows. BUOWs are generally found in open country, where tree or shrub canopies cover less than 30% of the habitat. Typical habitats include annual and perennial grasslands, shortgrass prairies open agricultural areas (particularly rangelands), deserts floors, and vacant lots in residential areas and university campuses. Other habitats include oak savannah; grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitat; sandy beaches and coastal dunes;	Yes	No	**No potential to occur.** The BSA is located within this bird's known distribution; however, it does not contain suitable foraging or breeding habitats to support this species.

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–ES–2023–0092; FF09E21000 FXES1111090FEDR 234]

RIN 1018–BH08

Endangered and Threatened Wildlife and Plants; Threatened Species Status With Section 4(d) Rule for the Northwestern Pond Turtle and Southwestern Pond Turtle

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list the northwestern pond turtle (*Actinemys marmorata*), a species from Washington, Oregon, Nevada, and northern and central California, and the southwestern pond turtle (*Actinemys pallida*), a species from central and southern California and Baja California, Mexico, as threatened species under the Endangered Species Act of 1973, as amended (Act). This determination also serves as our 12-month finding on a petition to list the western pond turtle, which is now recognized as two separate species (northwestern pond turtle and southwestern pond turtle). After a review of the best scientific and commercial information available, we find that listing the northwestern pond turtle and southwestern pond turtle is warranted. Accordingly, we propose to list the northwestern pond turtle and southwestern pond turtle as threatened species with rules issued under section 4(d) of the Act (''4(d) rule'') for each species. If we finalize this rule as proposed, it would add the northwestern pond turtle and southwestern pond turtle to the List of Endangered and Threatened Wildlife and extend the Act's protections to the two species. Due to the current lack of data sufficient to perform required analyses, we conclude that the designation of critical habitat for the northwestern pond turtle and southwestern pond turtle is not determinable at this time.

DATES: We will accept comments received or postmarked on or before December 4, 2023. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. eastern time on the closing date. We must receive requests for a public hearing, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by November 17, 2023.

ADDRESSES: You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: *https://www.regulations.gov.* In the Search box, enter FWS–R8–ES–2023–0092, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on ''Comment.''

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R8–ES–2023–0092, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on *https://www.regulations.gov.* This generally means that we will post any personal information you provide us (see Information Requested, below, for more information).

Availability of supporting materials: Supporting materials, such as the species status assessment report, are available at *https://www.regulations.gov* at Docket No. FWS–R8–ES–2023–0092.

FOR FURTHER INFORMATION CONTACT: Steve Henry, Field Supervisor, U.S. Fish and Wildlife Service, 2493 Portola Road, Suite B, Ventura, CA 93003; telephone 805–644–1766. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States. In compliance with the Providing Accountability Through Transparency Act of 2023, please see docket FWS–R8–ES–2023–0092 on *https://www.regulations.gov* for a document that summarizes this proposed rule.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act (16 U.S.C. 1531 *et seq.*), a species warrants listing if it meets the definition of an endangered species (in danger of extinction throughout all or a significant portion of its range) or a threatened species (likely to become endangered within the foreseeable future throughout all or a significant portion of its range). If we determine that a species warrants listing, we must list the species promptly and designate the species' critical habitat to the maximum extent prudent and determinable. We have determined that the northwestern pond turtle and the southwestern pond turtle meet the Act's definition of threatened species; therefore, we are proposing to list them as such. Listing a species as an endangered or threatened species can be completed only by issuing a rule through the Administrative Procedure Act rulemaking process (5 U.S.C. 551 *et seq.*).

What this document does. We are proposing to list the northwestern pond turtle and southwestern pond turtle as threatened species with a rule issued under section 4(d) of the Act (a ''4(d) rule'') for both species.

The basis for our action. Under the Act, we may determine that a species is an endangered or threatened species because of any of five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We have determined that the northwestern pond turtle and southwestern pond turtle are threatened species due to the following threats: impacts to terrestrial and aquatic habitat (Factor A), anthropogenic impacts to the species and its habitat (*e.g.,* human modification of habitat, land conversion, loss of connectivity between populations, recreation) (Factors A and E), nonnative predators (Factor C), and the effects of climate change (*e.g.,* drought, impacts associated with wildfire) (Factors A and E).

Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary), to the maximum extent prudent and determinable, to designate critical habitat concurrent with listing. We have not yet been able to obtain the necessary economic information needed to develop proposed critical habitat designations for the two species, although we are in the process of obtaining this information. At this time, we find that designation of critical habitat for the northwestern pond turtle and southwestern pond turtle is not determinable. Once we obtain the necessary economic information, we will propose critical habitat designations for the two species.

Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other governmental agencies, Native American Tribes, the scientific community, industry, or any other interested parties concerning this proposed rule for the northwestern and southwestern pond turtle. We particularly seek comments concerning:

(1) The two species' biology, range, and population trends, including:

(a) Biological or ecological requirements of the two species, including habitat requirements for feeding, breeding, and sheltering;

(b) Genetics and taxonomy;

(c) Historical and current range, including distribution patterns and the locations of any additional populations of these two species;

(d) Historical and current population levels, and current and projected trends;

(e) Past and ongoing conservation measures for these two species, their habitat, or both; and

(f) Tribal use or cultural significance of the northwestern pond turtle and southwestern pond turtle, including possession and collection and use of the two species for ceremonial or traditional crafts.

(2) Threats and conservation actions affecting the two species, including:

(a) Factors that may be affecting the continued existence of the two species, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or manmade factors.

(b) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to these two species.

(c) Existing regulations or conservation actions that may be addressing threats to these two species.

(3) Additional information concerning the historical and current status of these two species.

(4) Information on regulations that may be necessary and advisable to provide for the conservation of the northwestern and southwestern pond turtle and that we can consider in developing a 4(d) rule for these two species. In particular, we seek information concerning the extent to which we should include any of the section 9 prohibitions in the 4(d) rule or whether we should consider any additional exceptions from the prohibitions in the 4(d) rule.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, do not provide substantial information necessary to support a determination. Section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or a threatened species must be made solely on the basis of the best scientific and commercial data available, and section 4(b)(2) of the Act directs that the Secretary shall designate critical habitat on the basis of the best scientific data available.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

If you submit information via *https://www.regulations.gov,* your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *https://www.regulations.gov.*

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *https://www.regulations.gov.*

Because we will consider all comments and information we receive during the comment period, our final determinations may differ from this proposal. Based on the new information we receive (and any comments on that new information), we may conclude that the northwestern or southwestern pond turtle is endangered instead of threatened, or we may conclude that either of the two species does not warrant listing as either an endangered species or a threatened species. In addition, we may change the parameters of the prohibitions or the exceptions to those prohibitions in the 4(d) rule if we conclude it is appropriate in light of comments and new information received. For example, we may expand the prohibitions to include prohibiting additional activities if we conclude that those additional activities are not compatible with conservation of either of the two species. Conversely, we may establish additional exceptions to the prohibitions in the final rule if we conclude that the activities would facilitate or are compatible with the conservation and recovery of either of the two species. In our final rule, we will clearly explain our rationale and the basis for our final decision, including why we made changes, if any, that differ from this proposal.

Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by the date specified in **DATES**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing. We may hold the public hearing in person or virtually via webinar. We will announce any public hearing on our website, in addition to the **Federal Register**. The use of virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

Previous Federal Actions

On July 11, 2012, we received a petition from the Center for Biological Diversity (Center) (Center 2012, pp. 1–96), requesting that 53 species of amphibians and reptiles, including the western pond turtle, be listed as endangered or threatened species and that critical habitat be designated for those species under the Act. On June 10, 2014, the Center sent us a letter that cited a publication (Spinks et al. 2014, p. 2238) recommending that the western pond turtle be split into two separate species. The Center suggested that we consider the separation in our status review for the western pond turtle (Center 2014, entire). On April 10, 2015, we published in the **Federal Register** (80 FR 19259) a 90-day finding affirming that the petition for the western pond turtle as one species presented substantial scientific or commercial information indicating that the petitioned action may be warranted. The 12-month finding was added to our workload as part of our National Listing Workplan. In 2020, the Center included the western pond turtle in a lawsuit (*Center for Biological Diversity* v. *Debra Haaland et al.* No. 1:20–cv–00573–EGS) challenging the Service's failure to issue listing determinations in response to petitions for 241 species; the Service subsequently agreed in settlement to

submit to the **Federal Register** the 12-month finding in response to the petition to list the western pond turtle by September 30, 2023.

Peer Review

A species status assessment (SSA) team prepared an SSA report for the northwestern pond turtle and the southwestern pond turtle (Service 2023, entire). The SSA team was composed of Service biologists, in consultation with other species experts. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the two species, including the impacts of past, present, and future factors (both negative and beneficial) affecting each species. In development of the SSA, we worked with academic researchers affiliated with the University of Florida and U.S. Geological Survey (USGS) to develop a population model for areas in Oregon and California (Gregory and McGowan 2023, entire). The model was included as part of the analysis of the western pond turtle's status, is included as an appendix to the SSA report, and was reviewed by the peer reviewers.

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we solicited independent scientific review of the information contained in the SSA report for the two species. We sent the SSA report to three independent peer reviewers and received responses from two of the reviewers. Results of this structured review process can be found at *https://www.regulations.gov.* In preparing this proposed rule and 12-month finding, we incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this proposed rule and 12-month finding.

Summary of Peer Reviewer Comments

As discussed in Peer Review above, we received comments from two peer reviewers on the draft SSA report. We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding the material contained in the SSA report. The peer reviewers generally provided additional references, clarifications, and suggestions for the SSA report. We updated the SSA report based on the peer reviewers' comments and worked with researchers to update the current and future condition analyses in Oregon and California. The peer reviewer comments are addressed in the following summary and any necessary changes were incorporated into the current version of the SSA report as appropriate (Service 2023, entire).

Comment 1: One peer reviewer commented on the scale at which resiliency and redundancy were addressed, suggesting that we analyze resiliency at the subwatershed level and redundancy at the regional level (*i.e.,* analysis unit level) rather than species level.

Our response: To assess the current and future condition of the two species, we divided their ranges into analysis units that incorporate genetic, management, and ecological data (Service 2023, Analysis Units, pp. 33–37). Although we acknowledge in the SSA report that, based on conversations with species experts, population processes are likely happening at the subwatershed level, the data necessary to conduct the analysis at such a level were limited and not available in all circumstances to analyze the two species' condition at this scale. Because of data limitations, breaking the analysis into smaller pieces potentially would have amplified uncertainties, so we maintained the use of analysis units for assessing resiliency, but reiterated that they contain multiple populations. Redundancy describes the ability of the species to withstand catastrophic events and, following the SSA framework, we analyzed redundancy at the species level rather than the regional level (Service 2016, pp. 11–13).

Comment 2: One peer reviewer was critical on the methods and assumptions used for the model (*i.e.,* Gregory and McGowan 2023, entire) to analyze probability of extirpation of the analysis units that we used to inform resiliency of portions of the northwestern and southwestern pond turtle ranges in the SSA report in Oregon and California. The peer reviewer was concerned that the results of the model would overestimate population sizes and not provide accurate information on population persistence.

Our response: In response to peer review of the model, the researchers that developed the model lowered the initial starting population size in their analysis and revised their methods and provided additional clarifying information on how the model incorporated and generated results from the initial abundance estimates for the two species. As a result, the model currently reflects comments and suggestions provided by the peer reviewers. The peer reviewer comments did not notably change the overall results (which are probabilities of extirpation at the analysis unit level). Changes to the model are reflected in Gregory and McGowan (2023) (appendix to the SSA report) and incorporated into the analyses within the SSA report.

Comment 3: One peer reviewer questioned why the threat of disease (specifically shell disease) was not included in the model to assess the two species.

Our response: The top threats to each species were determined based on meetings with species experts and are consistent with a recent peer-reviewed publication (Manzo et al. 2021, entire) that is referenced in the SSA report. We acknowledge that disease is a threat with unknown demographic impacts to the species at this time. In the SSA report, we present the best scientific data available at this time in the section on disease. Our use of the model is one part of our analysis of the threats acting on the two species. We also considered disease as one of the factors in determining status of the two species.

Comment 4: One peer reviewer questioned the lack of objective criteria for assessing current condition in the model.

Our response: The model incorporates information about human use activities, drought conditions, and impacts from bullfrogs. The human use information includes numerous factors that may affect the species or its habitat. In our analysis, we used a 2050 timeframe to assess current condition because the western pond turtle is a long-lived species. More specific objective or species-specific criteria were not available rangewide and use of such localized information may have amplified uncertainties.

Comment 5: One peer reviewer stated that the generation time should be closer to 25 years rather than 50. They further stated that the projection period in the model (Gregory and McGowan 2023, entire) should span more generations/time.

Our response: Based on this comment, we revised our discussion of western pond turtle longevity in the SSA report to reflect generation time. In concert with this change, we added additional time steps in the model that are consistent with three western pond turtle generations (approximately 25, 50, and 75 years from now (year 2050, 2075, and 2100), respectively).

I. Proposed Listing Determination

Background

The western pond turtle (*Emys marmorata*) was first identified in 1852, from specimens collected from Puget Sound, Washington (Baird and Girard 1852, pp. 174–177). In 2017, the western

pond turtle was recognized and accepted by the scientific community as two separate species (northwestern pond turtle (*Actinemys marmorata*) and southwestern pond turtle (*Actinemys pallida*)) (Crother 2017, p. 82; Rhodin et al. 2017, pp. 76, 171–172). Because of the relatively recent split of the species into two separate entities, the majority of available research and information refers to a single species (western pond turtle). In the SSA report and this document, and unless otherwise noted, any reference to the western pond turtle is understood to apply to the northwestern and/or southwestern pond turtle.

Description

The northwestern pond turtle and southwestern pond turtle are medium in size (110 to 170 millimeter (4.33 to 7.05 inches) in length), with larger specimens occurring geographically in the northwestern pond turtle's range. Male and female western pond turtles are sexually dimorphic (Holland 1994, p. 2–4; Rosenberg et al. 2009, p. 10). Western pond turtle coloring varies with most appearing olive to dark brown, or blackish, occasionally without pattern but usually with a network of spots, lines, or dashes of brown or black (Hays et al. 1999, p. 2; Bury et al. 2012, p. 4; Stebbins and McGinnis 2018, pp. 204–205). The plastron (underside of shell) is yellowish and may have blackish or dark brown blotches or be unmarked (Stebbins and McGinnis 2018, p. 204). The first proposed study of geographic differentiation of western pond turtles into northern and southern subspecies was based on differences in coloration and the presence, shape, and size of the inguinal scute—the plate where the carapace joins the plastron at the groin (Seeliger 1945, entire; Service 2023, p. 15, Figure 2). Recent genetic results corroborated the presence/absence of inguinal scutes as a differentiating factor between the two species (Shaffer and Scott 2022, p. 9).

Diet and Habitat

The two species are omnivorous and considered dietary generalists, consuming a wide variety of food items including small aquatic invertebrates (insect larvae) and vertebrates (fish, tadpoles, and frogs), carrion, and plant material (Bury 1986, pp. 516–517; Holland 1994, pp. 2–5–2–6). Habitat needs for the two species include: (1) aquatic features such as ponds, lakes, and streams for breeding, feeding, overwintering, sheltering, and dispersal; (2) basking sites that allow for thermoregulation; and (3) terrestrial or upland features adjacent to the aquatic habitat for nesting, overwintering and aestivation, and dispersal and connectivity between populations (Service 2023, pp. 28–32). The elevational range of the two species is from sea-level to approximately 2,000 meters (m) (6,500 feet (ft)).

Lifespan and Reproduction

The maximum lifespan of the two species is unknown. However, they are long-lived after reaching adulthood with one individual living to at least 55 years of age (Bury et al. 2012, p. 17). These old individuals are rare in natural populations, but they appear to reproduce throughout their life (Kaufman and Garwood 2022, p. 354). In our analysis in the SSA report, we estimated the generation time for the northwestern pond turtle and southwestern pond turtle to be approximately 25 years (Service 2023, p. 12). The age at sexual maturity and breeding is variable between the two species and by specific locality and ranges from approximately 3.5 to 12 years of age depending on size, sex, environmental condition, and resource availability (Holland 1994, pp. 2–9, 5–2; (Hays et al. 1999, p. 12; Germano and Rathbun 2008, pp. 190–191; Rosenberg et al. 2009, p. 22; Germano 2010, p. 95; Bury et al. 2012, p. 15; Germano et al. 2022, p. 114–115). Courtship and mating behavior has been observed from April through November (Holland 1991, p. 23). Nesting behavior and oviposition usually occur from May through July, with northern populations nesting later in the season than those in the south (Bury et al. 2012, p. 15). Incubation periods range from 73–80 days in captivity under controlled conditions (Feldman 1982, p. 10) and 75 to 134 days in field studies in Oregon and northern California (Holland 1991, 26–33; Geist et al. 2015, p. 495, figure 2(B); Christie and Geist 2017, p. 49).

Species' Ranges

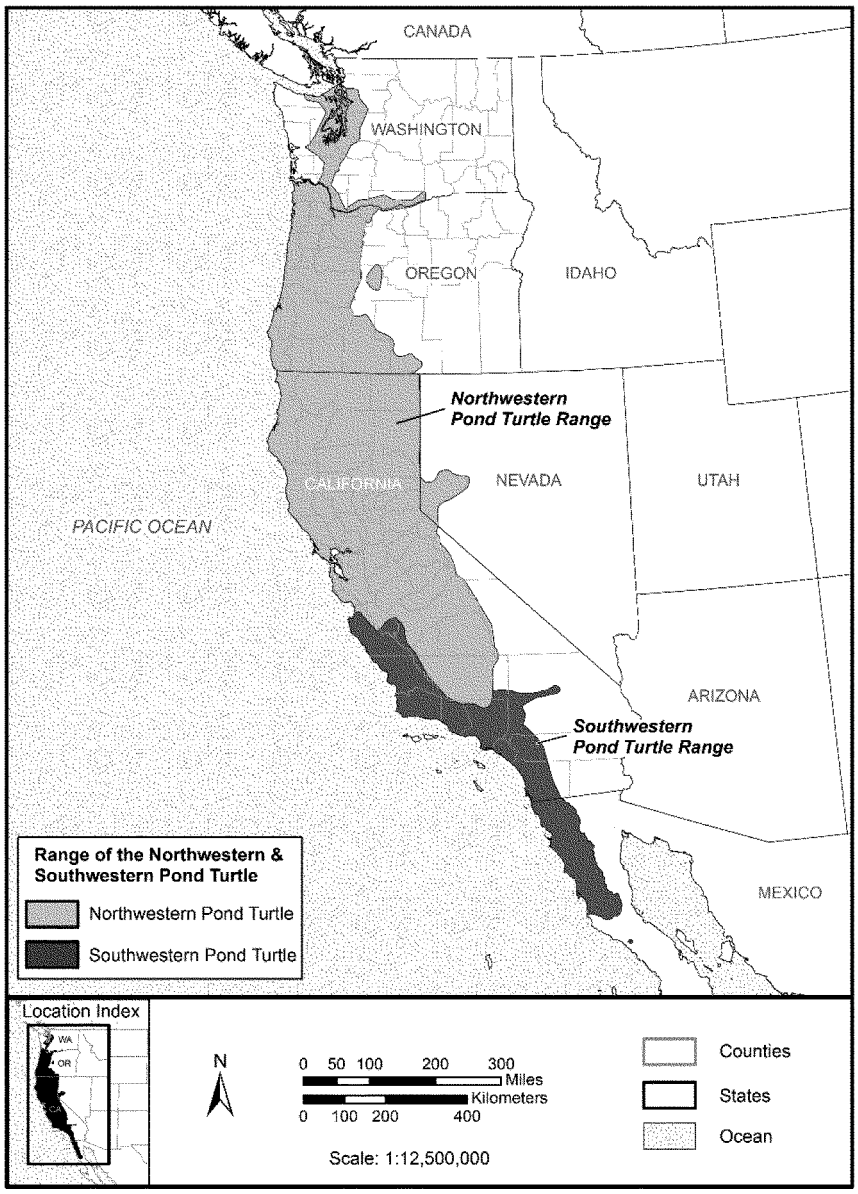
The historical range of the western pond turtle as a single species included areas in the States of Washington, Oregon, Nevada, and California, areas in British Columbia, Canada, and areas in Baja California, Mexico. The current collective range of the two species has experienced contractions within existing occupied areas including extirpation from British Columbia, Canada. In Washington, the northwestern pond turtle was nearly extirpated from Puget Sound and was restricted to 150 individuals within two remnant populations along the Columbia River Gorge. As a result of the reduced numbers, the Washington Department of Fish and Wildlife (WDFW) along with other partners initiated numerous conservation measures to conserve the species in Washington (see *Conservation Efforts and Regulatory Mechanisms*).

The current range of the northwestern pond turtle includes portions of Washington, Oregon, Nevada, and northern and central California. The range in Washington now includes six areas located in the Puget Sound area southward toward and including areas along the Columbia River. In Oregon, the species occupies areas along the Columbia River and west of the higher elevations of the Cascades Range, including portions of the Klamath Basin to the California border. The range in Nevada includes areas along the Carson and Truckee Rivers. The range in California includes areas of the Coast Range from the Oregon-California border down to northern Monterey County, the lower elevation and foothills of the southern Cascades and Sierra Nevada Mountains, and areas within the Sacramento and San Joaquin Valleys (see figure below).

The range of the southwestern pond turtle includes areas of central and southern California south into Baja California, Mexico. This includes areas of the central Coast Range from near northern Monterey County, California, portions of the Transverse Range into the Mojave River watershed, and areas south into Baja California, Mexico.

BILLING CODE 4333–15–P

Figure: Range of the Northwestern and Southwestern Pond Turtle.



BILLING CODE 4333–15–C

Recent genetic information identifies the boundary between the two species along the Coast Range to be the middle of the Monterey Bay coastline south of the Monterey/Santa Cruz County line in California (Shaffer and Scott 2022, p. 5). The contact zone between the two species lies at the edge of the southern Coast Range and Transverse Range where they meet along the floor of the Central Valley; individuals of both species occur along this contact zone but do not overlap (Shaffer and Scott 2022, pp. 4–5).

Genetics

Molecular analyses for western pond turtles were first conducted in the mid-1990s, with results generally following long-held subspecies designations based on coloration and morphological variation (Seeliger 1945, p. 156). More recent genetic analyses have since confirmed the taxonomic separation between the two entities and split them into two separate species (Spinks and Shaffer 2005, entire; Spinks et al. 2010, entire; Spinks et al. 2014, entire). The genetic makeup of the northwestern and southwestern pond turtle each largely follows a north/south geographic characterization, with greater (more differentiated) clustering in southern portions of the two species' ranges (Shaffer and Scott 2022, entire).

When reviewing the patterns of relative genetic similarity for the northwestern pond turtle, the species was found to be subdivided into five groups or clusters and includes: (1) a large area including the north California coast, Oregon, and Washington; (2) the area occupying the Sacramento Valley; (3) the Delta and areas due east across the Central Valley and Nevada; (4) the Yosemite Valley area; and (5) the San Joaquin Valley and the area east and south of the San Francisco Bay Area and San Francisco Peninsula (Shaffer and Scott 2022, p. 6–8). Genetic clustering for the southwestern pond turtle includes six groups or clusters: (1) a Coast Range group in the central coast from roughly Monterey Bay south to northern Santa Barbara County; (2) a Ventura/Santa Barbara cluster from

Point Conception to the Santa Clara River; (3) a Los Angeles group including the west-flowing Los Angeles basin drainages; (4) a Mojave group from the east-flowing Mojave River Drainage; (5) an Orange County/San Diego cluster encompassing southern coastal California from the Santa Ana river south through most of San Diego and Orange Counties; and (6) a Baja California group covering populations south of the U.S.-Mexico border.

We used this genetic clustering information on the two species as one of the factors in determining the boundaries of the analysis units used in our SSA report (Service 2023, pp. 33–37). A thorough description and review of the taxonomy, genetics, and ranges of the northwestern pond turtle and southwestern pond turtle is presented in the SSA report for the two species and literature cited within (Service 2023, pp. 11–20).

Regulatory and Analytical Framework

Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for endangered and threatened species. In 2019, jointly with the National Marine Fisheries Service, the Service issued a final rule that revised the regulations in 50 CFR part 424 regarding how we add, remove, and reclassify endangered and threatened species and the criteria for designating listed species' critical habitat (84 FR 45020; August 27, 2019). On the same day, the Service also issued final regulations that, for species listed as threatened species after September 26, 2019, eliminated the Service's general protective regulations automatically applying to threatened species the prohibitions that section 9 of the Act applies to endangered species (84 FR 44753; August 27, 2019).

The Act defines an ''endangered species'' as a species that is in danger of extinction throughout all or a significant portion of its range, and a ''threatened species'' as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether any species is an endangered species or a threatened species because of any of the following factors:

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term ''threat'' to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term ''threat'' includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term ''threat'' may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an ''endangered species'' or a ''threatened species.'' In determining whether a species meets either definition, we must evaluate all identified threats by considering the species' expected response and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an ''endangered species'' or a ''threatened species'' only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term ''foreseeable future,'' which appears in the statutory definition of ''threatened species.'' Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term ''foreseeable future'' extends only so far into the future as we can reasonably determine that both the future threats and the species' responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. ''Reliable'' does not mean ''certain''; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define the foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species' likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

Analytical Framework

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the species, including an assessment of the potential threats to the species. The SSA report does not represent our decision on whether the species should be proposed for listing as an endangered or threatened species under the Act. However, it does provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies.

To assess the viability of the two species, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency is the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy is the ability of the species to withstand catastrophic events (for example, severe droughts, large pollution events), and representation is the ability of the species to adapt to both near-term and long-term changes in its physical and biological environment (for example, changing climate conditions, pathogens). In general,

species viability will increase with increases in resiliency, redundancy, and representation (Smith et al. 2018, p. 306). Using these principles, we identified the two species' ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the two species' viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the individual species' life-history needs for the two species. The next stage involved an assessment of the historical and current condition of the two species' demographics and habitat characteristics, including an explanation of how the two species arrived at their current condition. The final stage of the SSA involved making predictions about the two species' responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best scientific information available to characterize viability as the ability of the two species to sustain populations in the wild over time which we then used to inform our regulatory decision.

The following is a summary of the key results and conclusions from the SSA report for the northwestern and southwestern pond turtle; the full SSA report can be found at Docket FWS–R8–ES–2023–0092 on *https://www.regulations.gov.*

Summary of Biological Status and Threats

In this discussion, we review the biological condition of the two species and their resources, and the threats that influence the two species' current and future condition, in order to assess the two species' overall viability and the risks to that viability.

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report for the northwestern and southwestern pond turtle, we have analyzed the cumulative effects of identified threats and conservation actions on the species. To assess the current and future condition of the species, we evaluate the effects of all the relevant factors that may be influencing the species, including threats and conservation efforts. Because the SSA framework considers not just the presence of the factors, but to what degree they collectively influence risk to the entire species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative effects analysis.

Species Needs

The habitat needs considered most important for western pond turtles to complete their life cycle include: aquatic habitat, upland habitat, and basking sites. Table 1, below, summarizes the individual habitat needs by life stage and resource function. The demographic needs considered most important for western pond turtles are abundance, reproduction/recruitment, survival, and connectivity.

TABLE 1—INDIVIDUAL HABITAT NEEDS OF THE WESTERN POND TURTLE

Individual need	Life stage	Resource function
Aquatic habitat	Hatchlings, juveniles, adults	Breeding, feeding, overwintering, sheltering, and dispersal.
Upland habitat	Eggs, hatchlings, juveniles, adults	Nesting, overwintering and aestivation, and dispersal.
Basking sites	Hatchlings, juveniles, adults	Thermoregulation, physiological functioning, and predator avoidance.

Aquatic Habitat

Western pond turtles are semi-aquatic, requiring both aquatic and terrestrial (upland) habitats that are connected to one another or within close proximity. Western pond turtles occur in a broad range of permanent and ephemeral water bodies including rivers and streams, lakes, natural and constructed ponds, wetlands, marshes, vernal pools, reservoirs, settling ponds, irrigation ditches, and estuaries with tidal influence (Spinks et al. 2003, entire; Bury and Germano 2008, p. 001.3; Ernst and Lovich 2009, p. 175; Bury et al. 2012, p. 12; Stebbins and McGinnis 2018, p. 205). Western pond turtles use aquatic habitat for breeding, feeding, overwintering, and sheltering. Preferred aquatic conditions are those with standing or slow-moving water that contain underwater shelter sites (undercut banks, submerged vegetation, mud, rocks, and logs) and abundant basking sites (see ''Basking Sites,'' below) (Holland 1991, pp. 13–14; Reese and Welsh Jr. 1998a, p. 852; Hays et al. 1999, p. 10; Bury and Germano 2008, p. 001.4; Ernst and Lovich 2009, p. 175). Western pond turtles inhabiting lentic aquatic habitat, such as ponds, lakes, and slack water habitats, often overwinter within the aquatic environment by burying themselves within the bottom substrate, such as mud. Various depths of both deeper and shallower water provide western pond turtles with habitat necessary for overwintering and hatchling growth. Primary habitat for hatchlings and young juveniles is shallow water with dense submerged vegetation and logs, which most likely provides shelter, prey, and thermoregulatory requirements or other functions for survival (Holland 1994, pp. 1–14, 2–12; Rosenberg and Swift 2013, p. 119).

Upland Habitat

Western pond turtles use upland habitat for nesting and overwintering. Females require upland nesting habitat in order to lay their eggs. Upland nesting habitat varies greatly across the two species' geographic ranges, but regardless of composition, it needs to be in close proximity to the aquatic habitat being used by the species. This habitat is typically characterized as having sparse vegetation with short grasses and forbs and little or no canopy cover to allow for exposure to direct sunlight (Holland 1994, p. 2–10; Rathbun et al. 2002, p. 232; Rosenberg et al. 2009, pp. 16–17; Riensche et al. 2019, p. 97). Females excavate nests in compact, dry soils that are 3 to 400 m (10 to 1,300 ft) from water (Holland 1994, p. 2–10; Holte 1998, p. 54). Additional features of nesting habitat/sites that may be important include aspect, slope, and vegetation (Service 2023, pp. 29–30).

Upland overwintering habitat also varies greatly across the two species' ranges. Overwintering habitat usually occurs above the high water elevation of the aquatic habitat and beyond any riparian zone (Reese and Welsh Jr. 1997, p. 355; Rathbun et al. 2002, p. 229; Oregon Department of Fish and Wildlife (ODFW) 2015, pp. 6–7). While vegetation communities differ from site to site, open areas were avoided for overwintering, and leaf litter was present at most sites (Reese and Welsh Jr. 1997, pp. 354–355; Davis 1998, p. 19; Rathbun et al. 2002, p. 230). In central California, overwintering western pond turtles were generally located where they could be exposed to direct sunlight during a portion of the day (Rathbun et al. 2002, p. 230).

Basking Sites

As reptiles, western pond turtles use basking as a means to thermoregulate their body temperature. Western pond turtles engage in basking both within water (aquatic basking) and outside water (emergent basking). Basking is essential for physiological functions such as metabolism, digestion, reproduction, and growth. Additional benefits of emergent basking include drying out the shell and skin for parasite or algal control. Western pond turtles use logs, rocks, vegetation, shorelines, and essentially any other substrate located within and adjacent to aquatic habitat for emergent basking (Holland 1994, p. 2–8; Hays et al. 1999, p. 10). The location of the basking site above or adjacent to aquatic features allows for quick retreat into the water if there is perceived danger (Storer 1930, p. 431). Aquatic basking occurs in shallow water in top layers of vegetative matter or in submerged vegetation such as algal mats. Aquatic basking may be used when emergent basking sites are limited or not present and provides a warmer environment than that of surrounding water (Jennings and Hayes 1994, p. 100; Reese and Welsh Jr. 1998a, p. 851).

Habitat Connectivity

Despite their ability to use a wide range of aquatic and upland features, suitable aquatic habitats are relatively rare across much of the range, exacerbated mostly by past land use changes (*e.g.,* urbanization and agriculture) (see ''Habitat Loss and Fragmentation,'' below). Consequently, the distribution of populations of the two species may be disjunct depending on habitat availability across the landscape, especially in areas with increased development; roadways; or extensive open, dry terrain between waterways (Holland 1991, pp. 13, 53–54; Bury et al. 2012, p. 12; Thomson et al. 2016, pp. 300–301). Western pond turtle populations need a network of appropriate aquatic breeding, feeding, and basking habitat that has sufficient upland nesting and overwintering/aestivation sites that are connected by suitable habitat. The back-and-forth movements between aquatic and upland habitats of individuals within a population (*i.e.,* migration) are typically less than 500 m (1,600 ft) (Reese and Welsh Jr 1997, p. 357).

Dispersal between populations is an important demographic need for both western pond turtle species. A population that is connected to other populations through dispersal is more resilient because individuals have the ability to bolster existing sites and thereby enhance the genetic diversity of the population or recolonize extirpated sites. The dispersal of western pond turtles between populations is not well understood. However, genetic research suggests that most dispersal activity occurs within drainages or watersheds (Spinks and Shaffer 2005, p. 2057). Observed dispersal distances for the western pond turtle varied from approximately 2.6 kilometers (km) (1.6 miles (mi)) to 7 km (4.3 mi) within aquatic habitat, with overland dispersal distances being slightly less (approximately 5 km (3 mi)) under optimal conditions (Holland 1994, pp. 2–9; 7–28; Rosenberg et al. 2009, p. 21; Purcell et al. 2017, pp. 21, 24).

Threats Influencing Current and Future Condition of the Western Pond Turtle

The following is a summary of information and evaluations of the threats analyzed in the SSA report for the northwestern and southwestern pond turtle. The discussion focuses on threats impacting both species with specific information regarding threats acting on each species individually. Additional information on the specific threats associated with each species is provided in the SSA report (Service 2023, Chapter 8, pp. 38–69).

Based on the best scientific and commercial information available including State wildlife agency status reviews, threat and conservation assessments, and management plans in Washington, Oregon, Nevada, and California (Rosenberg et al. 2009, pp. 1–80; Thomson et al. 2016, pp. 296–303; Hallock et al. 2017, pp. 8–11; Wildlife Action Plan Team 2022, p. 57), a peer-reviewed threat analysis (Manzo et al. 2021, pp. 485–501), and other published information gathered for the SSA report on the northwestern pond turtle and southwestern pond turtle (Service 2023, Chapter 8, pp. 38–69), we identified habitat loss and fragmentation (including latent impacts from past habitat impacts), altered hydrology, predation, competition, road impacts, collection (including historical overutilization in California (Bettelheim and Wong 2022, pp. 7–12)), contaminants, disease, and the effects of climate change (including increasing temperatures, severe drought, extreme flood events, and high severity wildfire) as threats acting on individuals, populations, or each species as a whole to varying degrees across their respective ranges. Based on our assessment as identified in the SSA report (Service 2023, pp. 85–91, section 9.2), we identified three key factors as most influential in driving the western pond turtle's current and future condition: anthropogenic impacts, predation by bullfrogs, and drought. Anthropogenic impacts are a group of threats that are driving or influencing the viability of both the northwestern or southwestern pond turtle and are outlined in the threat discussion of the SSA report (Service 2023, pp. 38–69, 81–85, and figure 18) and other supporting literature (Theobald et al. 2020, entire; Manzo et al. 2021, pp. 492–493; Theobald 2021, entire). Anthropogenic impacts include or exacerbate all the threats identified below outside of those associated with bullfrogs and drought. These threats have had substantial population-level effects on the northwestern and southwestern pond turtle and are anticipated to continue to be the primary drivers of northwestern and southwestern pond turtle viability.

Habitat Loss and Fragmentation

Habitat loss and fragmentation from land conversion associated with historical and current urbanization and agriculture has impacted aquatic and upland habitat for the western pond turtle (Service 2023, pp. 41–45). Areas of significant habitat loss, conversion, and alteration for the northwestern pond turtle include areas in Washington in the Puget Sound and lower Columbia River (Lower Columbia River Fish Recovery Board 2010, p. B–204; Hallock et al. 2017, p. 10), areas in Oregon in the Portland metropolitan area and Willamette Basin (Rosenberg et al. 2009, pp. 37, 40), and areas in California in the Sacramento and San Joaquin Valleys and urbanized areas for the San Francisco Bay Area (Jennings et al. 1992, p.12; Jennings and Hayes 1994, p. 99; Kelly et al. 2005, pp. 63, 70). Areas of significant habitat loss for the southwestern pond turtle include areas in the heavily urbanized portions of southern California including Los Angeles, Orange, Riverside, and San Diego Counties (Thomson et al. 2016, p. 301).

In areas associated with agriculture and urbanization, upland land conversion and draining of the extensive wetlands or channeling of streams have resulted in the decline and extirpation of many populations and left the remaining western pond turtle populations within these areas disjunct, scattered, and isolated from each other with little upland habitat available for nesting (Holland 1991, p. 13; Reese 1996, p. 105; Thomson et al. 2016, p. 300–301). Currently, western pond turtle populations rarely have densities similar to their historical counterparts, and age structures of extant populations tend to be skewed towards adults

(Holland 1991, p. 53; Reese 1996, p. 73; Manzo et al. 2021, p. 493).

Although the rate of habitat losses has diminished, the lingering effects of past habitat loss and ongoing habitat loss, alteration, and fragmentation continue to impact the northwestern and southwestern pond turtle by reducing the size of populations due to reductions in available aquatic and upland habitat, isolating populations, and limiting dispersal between populations. These impacts reduce the capability of populations of the two species to respond to stochastic or catastrophic events and thereby affect the species' ability to maintain populations in the wild; the level of impact varies among populations and is dependent on habitat availability and condition and level of past habitat loss (Holland 1991, pp. 13, 53; Reese 1996, p. 73; Manzo et al. 2021, p. 493; Service 2023, pp. 41–45). The effects associated with habitat loss by urbanization and agriculture include additional impacts associated with human activity such as recreation, road impacts, collection, and contaminants (Service 2023, pp. 45–46, 54–59) (see Human Impacts below).

Altered Hydrology

The threats associated with altered hydrology that have impacted both the northwestern and southwestern pond turtle include: wetland conversion and draining; stream channelization and ditching; modification of flow regimes; groundwater pumping; water diversions; damming; and water regulation for flood risk management (flood control) (Reese and Welsh Jr. 1998b, p. 505; Rosenberg et al. 2009, pp. 37, 40; Germano 2010, p. 89). These threats affect the hydrology, thermal conditions, and structure of the western pond turtle aquatic and upland habitat (Service 2023, pp. 45–46). Dams and the reservoirs they create can act as barriers to migration, create stretches of unsuitable habitat, and/or degrade or eliminate habitat (Holland 1994, p. 1–29; Reese and Welsh Jr. 1998a, p. 851). Managed stream flows below dams that alter natural flow regimes and hold water during winter and release water during the summer have been shown to reduce water temperatures, increase sedimentation, and have a higher canopy cover percentage compared to undammed systems (Ligon et al. 1995, entire; Reese and Welsh Jr. 1998a, p. 842, 847–848; Madden-Smith et al. 2005, p. 5; Rosenberg et al. 2009, p. 40; Williams and Wolman, entire). Reduced water temperatures, increased sedimentation, and high canopy cover all negatively impact the aquatic habitat as well as basking habitat conditions for the northwestern and southwestern pond turtle.

In northern California, colder water temperatures on regulated streams below dams likely contributed to northwestern pond turtles having a slower growth rate, less recruitment, and fewer juveniles (Reese 1996, pp. 43–44; Reese and Welsh Jr. 1998b, p. 513; Ashton et al. 2015, pp. 624–628). Changes to the timing of water releases from a dam on a regulated stream in northern California resulted in a pre-dam intermittent stream having year-round flows post-dam. This change provided for an increase in food availability, which allowed northwestern pond turtles to grow larger. However, similar to the other studies, there were fewer juveniles below the dam, which suggested an effect on the population's recruitment (Bondi and Marks 2013, p. 146–149).

The impacts of altered hydrology can also be exacerbated or compounded by other threats to the two species, such as drought and nonnative predators (see Predation and Drought below) (Meyer et al. 2003, p. 2; Moyle 1973, p. 21; Holland 1991, pp. 54–57; Holland 1994, pp. 2–11–2–12; Hays et al. 1999, pp. 13–14; Spinks et al. 2003, pp. 264–265; Cadi and Joly 2004, pp. 2515–2517; Service 2023, p. 47).

Disease

Disease has been and is an emerging concern for western pond turtle populations. Documented diseases in western pond turtles include respiratory disease and shell disease. Several respiratory diseases have been shown to impact both northwestern and southwestern pond turtles but only in limited areas and not in large numbers. Shell disease has been found to impact the northwestern pond turtle, but again in only parts of its range and may be associated with headstarted western pond turtles. Although disease may impact individuals or localized populations and may be a cumulative impact on either the northwestern or southwestern pond turtle, we do not consider disease a driving factor in the viability of either species. As a result, we do not expect that respiratory or shell disease are significant threats impacting the northwestern or southwestern pond turtle. See the SSA report for additional information regarding disease (Service 2023, pp. 53–54).

Predation

Western pond turtles are impacted by both native and nonnative predators including most carnivorous or omnivorous animals large enough to consume eggs, nestlings, or adult turtles (Rosenberg et al. 2009, p. 27). Native predators to western pond turtles include but are not limited to black bears (*Ursus americanus*), foxes (*Urocyon cinereoargenteus* and *Vulpes vulpes*), coyotes (*Canis latrans*), raccoons (*Procyon lotor*), skunks (*Mephitis* sp. and *Spilogale* sp.), mink (*Neogale vison*), river otters (*Lontra canadensis*), osprey (*Pandion haliaetus*), bald eagles (*Haliaeetus leucocephalus*), ravens (*Corvus corax*), American crows (*Corvus brachyrhynchos*), and herons (Order *Ciconiiformes*) (Holland 1994, p. 2–12; Bury and Germano 2008, p. 5; Ernst and Lovich 2009, p. 180; Thomson et al. 2016, p. 302). Nonnative predators include American bullfrogs (bullfrogs) (*Lithobates catesbeianus*), invasive fish, such as large and smallmouth bass (*Micropterus* sp.), and feral and domestic dogs (*Canis familiaris*) (Moyle 1973, p. 21; Bury and Whelan 1984, pp. 2–5; Holland 1994, p. 2–12; Ernst and Lovich 2009, p. 180).

Nonnative predators in western pond turtle habitat influence the species by increasing predation pressure on hatchlings and young juveniles. Increased predation beyond the natural levels under which western pond turtles evolved results in reduced survival and reproduction, affecting population recruitment and abundance, which in turn, lessens overall resiliency. Increased predation effects beyond those in natural settings are further amplified when considered with other factors contributing to reduced recruitment and survival, such as occurrence in urbanized areas with increased nest predators (such as dogs, raccoons, crows, ravens, or coyotes), or in areas with altered hydrology that are more susceptible to drought (Service 2023, p. 49).

Although the effects of bullfrogs on western pond turtles are difficult to distinguish from co-occurring factors influencing viability (such as habitat loss and degradation), research indicates that bullfrogs play an instrumental role in western pond turtle population declines due to reductions in recruitment through predation on hatchlings and competition for resources (see ''Competition (nonnative species),'' below) (Holland 1991, p. 43; Holland 1994, p. 2–12; Hays et al. 1999, p. 14; Ernst and Lovich 2009, p. 180; Hallock et al. 2017, pp. 9–10; Nicholson et al. 2020, pp. 4–5, 9). Teasing apart the impacts of nonnative predators from other factors may best be observed by testing the effects of removing them from the system and measuring the response by western pond turtles. For

example, at Sycuan Peak Ecological Reserve in San Diego County, California, removal of invasive predators including bullfrogs resulted in observations of hatchling and young juvenile southwestern pond turtles (less than 80 millimeter carapace length (over the curve measurement)) for the first time in over a decade (Brown et al. 2015, pp. 24, 110). Similar improvements of hatchling success have been observed in northwestern pond turtles in Washington once bullfrog control efforts were implemented (Hallock et al. 2017, pp. 13–14).

Bullfrogs are native to the eastern United States and were first introduced into the West as part of commercial farming operations and were first documented in California in 1896 (Heard 1904, p. 24; Jennings and Hayes 1985, p. 98, California Department of Fish and Wildlife (CDFW) 2023b, entire). Since that time, bullfrogs have become widespread throughout much of the western pond turtles' range due in part to altered hydrology, land-use and habitat changes, and unauthorized introductions (Holland 1991, p. 40; Fuller et al. 2011, pp. 210–211; CDFW 2023b, entire). Once bullfrogs are introduced or become established, they often require multi-year or permanent implementation of management efforts for their removal and eradication from a site (Doubledee et al. 2003, pp. 424–425; Adams and Pearl 2007, pp. 679–670; Kamoroff et al. 2020, pp. 618–622). For example, the National Park Service (NPS) implemented a program to remove bullfrogs from sites in Yosemite National Park. The program required implementation of numerous eradication and monitoring methods and a significant amount of funding and staffing resources over a multi-year timeframe (2005 to 2019 for a site in Yosemite Valley, and 2019–2024 (and potentially beyond) for an ongoing effort on a site in the Tuolumne River watershed) (Kamoroff et al. 2020, pp. 617–624; NPS 2020, entire). Bullfrogs are an especially detrimental aquatic predator due to their use of shallow aquatic habitat less suitable to other predators such as nonnative fish; the apparent lack of an anti-predator response in western pond turtles (particularly in hatchlings, which are most susceptible to predation), as western pond turtles did not co-evolve with bullfrogs; and the difficulty and continued intensive management necessary for removal once bullfrogs are established (Hays et al. 1999, p. 14; Hallock et al. 2017, pp. 9–10; Nicholson et al. 2020, pp. 4–5, 9).

Competition (Nonnative Species)

Nonnative species such as red-eared sliders, bullfrogs, bass, snapping turtles (*Chelydra serpentina*), and several crayfish species (*Pacifastacus leniusculus, Procambarus clarkii*) may compete with the western pond turtle for food or habitat resources (Thomson et al. 2010, p. 300; Lambert et al. 2013, p. 196; Fulton et al. 2022, pp. 102–104; ODFW 2022, entire). Although competition is a contributing factor and may act as a cumulative threat on individual northwestern and southwestern pond turtles, its impact on populations of the two species is not to such a degree that it causes significant impacts to the northwestern or southwestern pond turtle. As a result we do not consider competition from nonnative species to be a factor influencing the viability of the northwestern or southwestern pond turtle. See the SSA report for additional discussion on competition from nonnative species (Service 2023, pp. 51–53)

Human Impacts

Recreation. Recreational activities such as hiking, biking, fishing, boating, and off-highway vehicles, and the associated disturbance within or adjacent to aquatic and nest habitats, can affect western pond turtles in a variety of ways, depending on the region and type of recreation. Some forms of recreation may inadvertently cause mortality, degrade habitat, disturb pond turtle behavior, and/or contribute to other threats.

Western pond turtles are extremely wary and will rapidly flee from basking sites or dive when on the water surface when disturbed by the sight or sound of people at distances of greater than 100 m (328 ft) (Bury and Germano 2008, p. 001.5). This disturbance reduces the amount of time basking and has potential effects on the species' metabolism, proper digestion, feeding, reproduction, and growth (Lambert et al. 2013, p. 196; Nyhof and Trulio 2015, p. 183; Service 2023, p. 45). Direct impacts to western pond turtles, although less prevalent, may include ingestion of or injury by fishhooks (Lovich et al. 2017, p. 6) and shooting (Shore 2001, p. 37). Although impacts from recreation may affect individual turtles, recreation's impact on populations of the two species is not to such a degree that it causes significant impacts to the northwestern or southwestern pond turtle.

Road and Transportation Impacts. Although roads and other transportation infrastructure are tightly linked to urbanization and development, they also exist as a stand-alone threat since their presence is not always associated with urban or developed areas. In an assessment of the susceptibility of California herpetofauna to road mortality and habitat fragmentation, one study evaluated 160 species and classified western pond turtles in the top 10 affected (Brehme et al. 2018, p. 921). Populations of western pond turtles are increasingly male-biased the closer the species' aquatic habitat is to roads, a correlation consistent with higher road mortality of females dispersing to nesting habitat (Nicholson et al. 2020, pp. 11–13, 16). Roads can affect western pond turtle viability by killing or injuring individuals through vehicle impacts, disturbing basking behavior, increasing human and predator access to areas, reducing migration between upland and aquatic habitat of individual populations, and limiting connectivity between populations (Steen and Gibbs 2004, pp. 1145–1146; Rosenberg et al. 2009, p. 41; Nyhof 2013, p. 43; Nyhof and Trulio 2015, p. 183; Thomson et al. 2016, p. 301; Rautsaw et al. 2018, pp. 138–139; Madden-Smith et al. 2005, pp. 43, 45; Nicholson et al. 2020, entire; Manzo et al. 2021, p. 494, S1 text supplement). As a result, we expect that populations of northwestern or southwestern pond turtles near or within urbanized areas may be negatively affected by the impacts of roads.

Collection. Historical collection of the western pond turtle for commercial harvesting of food for the San Francisco market in the latter part of the 19th century and early 20th century was extensive and led in part to the declines in abundance of western pond turtles especially in the San Francisco Bay area and the Sacramento and San Joaquin Valleys (Holland 1991, p. 44; Holland 1994, p. 2–13; Hays et al. 1999, p. 16; Bettelheim 2005, entire; Rosenberg et al. 2009, p. 42; Thomson et al. 2016, p. 301; Bettelheim and Wong 2022, pp. 5–16). Harvesting of western pond turtles has declined significantly, but still occurs, typically for the pet trade, food, or opportunistic collection by the public as a personal pet in urbanized areas. In some instances (especially near urbanized areas), the collection may cause a reduction in numbers of individuals within populations of western pond turtles, but the impact is expected to be localized and not a driving factor of population or species' status (Sweet pers. comm. in Bettelheim 2005, p. 42; Germano 2021, p. 240; Barnes 2023, entire).

Contaminants. Western pond turtles are exposed to a variety of toxins

throughout their range; however, the exact sensitivity of individuals to pesticides, heavy metals, pollutants, and other contaminants is largely unknown. Sources of contaminants affecting western pond turtles include run-off, discharge, or drift from agricultural activities, mining sites, accidental hazardous waste spills, urbanized areas, and roadways (Bury 1972, p. 294; Holland 1994, p. 2–13; Majewski and Capel 1995, entire; Tudi et al. 2021, pp. 6–8; Meyer et al. 2014, p. 2994). Potential effects from contaminants to long-lived species such as the western pond turtle include premature mortality or chronic accumulation that could potentially be transferred to offspring (Rowe 2008, p. 626). Contaminants can be toxic to aquatic prey or food items of western pond turtles such as amphibians, small aquatic invertebrates, and plants (Davidson 2004, p. 1892; Relyea 2005, p. 1118; Brühl et al. 2013, p. 1). Thus, a potential reduction of prey due to contaminants may have negative impacts at the individual and population level of western pond turtle.

Effects of Climate Change

The effects of climate change are already having statewide impacts in California, Oregon, Nevada, and Washington (Washington Department of Ecology 2012, pp. 34–44; Bedsworth et al. 2018, p. 13; Mote et al. 2019, p. ii, summary; University of Nevada, Reno Extension 2021, pp. 1–9). The recent overall trends in climate conditions across the range of the western pond turtle include increasing temperatures, changes in precipitation patterns, and increased frequency and severity of extreme events such as droughts, heat waves, wildfires (and associated debris flows), and floods (Bedsworth et al. 2018, pp. 19–33; May et al. 2018, pp. 1036–1050; Oregon Climate Change Research Institute 2019, pp. 5–7). Because of the large ranges of the northwestern and southwestern pond turtle, impacts associated with climate change are expected to vary throughout the range of the two species with the southern portion of each species' range seeing greater impacts. Below we provide information regarding the major impacts associated with climate change: increasing temperatures, drought, extreme flood events, and wildfire impacts.

Increasing Temperatures. Both the northwestern and southwestern pond turtle exhibit temperature-dependent sex determination (TSD). This is where the sexual makeup of male and female hatchlings within a population is based on the temperature conditions of the nest site during egg incubation (Ewert et al. 1994, pp. 3–7; Ewert et al. 2004, pp. 21–32). Under higher mean nest temperatures during the incubation period, western pond turtle hatchlings are more likely to be female and under lower mean nest temperatures, hatchlings are more likely to be male. Increases in incubation temperature of the nest site due to the effects of climate change could lead to skewed sex ratios or reduced hatching success (Christie and Geist 2017, pp. 49, 51). The western pond turtle requires certain temperature thresholds for proper development of the embryo (Geist et al. 2015, pp. 494–496). The mean and maximum temperatures of the nest site and their interaction with each other significantly influence the incubation period for the western pond turtle (Christie and Geist 2017, p. 51). According to one study, nest sites exposed to mean higher temperatures had shorter incubation periods, and nest sites exposed to higher temperature extremes had a longer incubation period (Christie and Geist 2017, p. 49). This is most likely due to higher extreme temperatures, which are outside proper temperature development thresholds for the western pond turtle, slowing or halting embryo development (Christie and Geist 2017, p. 51). Longer incubation times delay hatchling emergence and cause them to either enter aquatic habitat later in the season when aquatic habitat conditions may be reduced or impacted by drought, or cause hatchlings to overwinter in the nest and have a lower fitness level when they do emerge in the spring. If extreme or elevated temperatures are prolonged during the incubation period, then development of the embryos would stop entirely and the embryos would die (Christie and Geist 2017, pp. 50–51).

The incubation temperatures observed at nest sites over a 3-year period in a northern California pond in Lake County, commonly fluctuated more than 20 degrees Celsius (°C) (36 degrees Fahrenheit (°F)) on a daily basis, with nearly half of the eggs reaching maximum temperatures of 39 °C (102 °F) or greater (Christie and Geist 2017, pp. 50–51). Site temperatures above 40 °C (104 °F) were lethal to 50 percent of eggs, and temperatures above 45 °C (113 °F) resulted in a 90 percent infertility rate (Christie and Geist 2017, pp. 49, 51).

In some instances, such as in cooler climactic regions, warmer mean temperatures may allow for reproductive success by expanding the nesting season (Washington Department of Fish and Wildlife 2015, p. C–56), but the impacts of winter warming temperatures were less clear based on research of other reptile species (Moss and MacLeod 2022, pp. 264–266).

This skew in populations favoring more females, limiting reproductive success, and reducing the number of hatchlings produced as a result of increased temperatures has been found in other turtle species with TSD (Refsnider and Janzen 2016, pp. 66–67). Individual western pond turtles within a population may be able to tolerate increased temperatures and show some level of tolerance to temperature variation, or egg-laying females may be able to compensate for increased temperatures by digging deeper nests or seeking cooler upland nest sites, if such locations are available. However, due to the current expected rate and magnitude of temperature changes, it is unknown whether any individual behavioral changes or internal traits can compensate for the expected temperature changes. Increasing temperatures will impact the western pond turtle on both the individual and population level by impacting population composition, nesting behavior, and nesting success, and further influence aquatic habitat conditions. Therefore, we would expect declines in both individuals and populations of northwestern pond turtle and southwestern pond turtle, especially in areas in the southern parts of each species' range where temperatures are typically warmer.

Drought: Since 1900, drought conditions (or below average precipitation seasons) in the range of the western pond turtle in California have been relatively common, with significant drought conditions occurring intermittently over an extended period in the 1920s through 1930s and in 1976–77 (CDWR 2015, pp. 6–12). In Nevada, the western pond turtle populations on the Truckee River and Carson River are mostly influenced by snowpack in the Sierra Nevada Mountains, and, as a result, those populations' drought and aquatic habitat conditions in Nevada mimic those in California. In Oregon and Washington, documented drought impacts to western pond turtles are limited; however, drought conditions in the Northwest have increased in incidence, extent, and severity between 2000 and 2021, and this trend is predicted to continue (Dalton and Fleishman 2021, pp. 37–42). However, the severity and impacts of drought are not uniform across the north-south gradient from Washington to Mexico, resulting in a variable impact intensity for both the northwestern pond turtle and southwestern pond turtle (Dong et

al. 2019, pp. 3818–3819; Manzo et al. 2021, p. 497).

During normal drought conditions, when aquatic habitat levels are low or become dry, western pond turtles can aestivate in upland habitat or move to another water body if one is within migration or dispersal distance. Aestivating western pond turtles have been observed to remain in upland habitat during drought periods for approximately 7 months, suggesting that the western pond turtle is adapted to some level of drought conditions (Belli 2015, pp. 57, 59). During multi-year or severe drought conditions, individuals could remain alive in upland habitat and return to their aquatic habitat when conditions become suitable again depending on whether the aquatic habitat is more ephemeral or permanent, other aquatic habitat is located nearby (within dispersal capabilities of the species), climate refugia between sites are available, and if the species can avoid the expected increased predation opportunities in upland areas (Purcell et al. 2017, pp. 19–24). However, although individuals may survive extended droughts, the ability of small or isolated populations of western pond turtles to survive such events is unlikely (Purcell et al. 2017, pp. 23–24). Survival of populations would require a sufficient number of adult individuals of appropriate male and female composition to survive. A study on common box turtles (*Terrapene carolina*), a similarly long-lived turtle subject to catastrophic events such as severe drought, found that populations that were increasing or stable would remain at a site subject to a single event after 50 years, and that if the site was subject to multiple catastrophic events, only those sites with increasing populations would remain (Dodd et al. 2015, pp. 373–376). Although the western pond turtle has evolved with and can tolerate periodic drought conditions, its populations have been reduced or extirpated in areas that have been impacted by severe drought, especially in central and southern California (Leidy et al. 2016, pp. 71–74; Purcell et al. 2017, pp. 6–10; Service 2023, pp. 60–63), and the frequency, severity, and duration of drought are expected to increase in response to climate change (Washington Department of Ecology 2012, pp. 34–44; Bedsworth et al. 2018, pp. 13, 19–33; May et al. 2018, pp. 1036–1050; Mote et al. 2019, p. ii, summary; Oregon Climate Change Research Institute 2019, pp. 5–7). The increased frequency, severity, and duration of droughts would greatly alter hydrology or reduce aquatic habitat, would limit movement of western pond turtles between habitats, would further isolate local populations, and would cause species' declines (Holland 1994, p. 2–14; Leidy et al. 2016, pp. 73–74; Hallock et al. 2017, pp. 10–11). In addition, drought affects the quality and quantity of aquatic habitat, increases competition for resources (leading to starvation), limits reproductive output, and causes warmer water temperatures that may benefit nonnative predators and competitors such as bullfrogs and nonnative fish in the remaining aquatic habitat (Goodman Jr. 1997, p. 23; Lovich et al. 2017, p. 7; Purcell et al. 2017, p. 21). In addition, because females often forego nesting when conditions are unfavorable, extended drought can result in reduced reproduction and recruitment opportunities.

As a result, extended drought conditions or the increased frequency or severity of droughts could have significant effects on both northwestern or southwestern pond turtle populations, and other cumulative effects could create conditions such that repopulation of sites is unlikely, especially in more ephemeral aquatic habitats.

Extreme flood events: Flooding is a natural event that occurs throughout the range of the western pond turtle. Effects of flooding on western pond turtles include flushing of individuals from aquatic and terrestrial habitat and inundation of nesting sites (Rathbun et al. 1992, p. 323; Nerhus 2016, p. 45). Strong winter flows from heavy precipitation are typical in western pond turtle habitats, and floods can maintain and improve nesting habitat quality (Risley et al. 2010, p. 64). However, extreme flood events have the potential to cause severe habitat destruction and can act in concert with other stressors, leading to potential extirpation of populations, as may have occurred at two sites in the Mojave Desert, San Bernardino County, California (Lovich pers. comm. in Nerhus 2016, p. 44; Puffer et al. 2020, unpaginated). Western pond turtles are known to leave the water during times of highwater events and mostly aestivate or overwinter in the uplands above the highwater marks (Reese and Welsh Jr. 1997, p. 356). In Oregon, most hatchlings overwinter in the nest; however, fall emergence was observed in response to a heavy precipitation event (Rosenberg and Swift 2013, p. 117). Without protection from the nest, these hatchlings were exposed to both environmental and predation risk that may have reduced their survival. Extreme flood events can also cause nest failure as a result of prolonged inundation or too much moisture during the incubation period, and they may cause drowning of hatchlings (Bury et al. 2012, p. 17).

A potential benefit of flood events may be aided dispersal. Hatchlings that overwinter in nests along the Mojave River may be dispersed by floods (Lovich and Meyer 2002, p. 542). Anecdotal accounts have been reported of young and adult turtles being flushed to the mouth of rivers after the floods of 1995 in Ventura County, California (Rosenberg et al. 2009, pp. 20–21). While some pond turtles were most likely injured or killed, long distance dispersal from these infrequent but large flood events likely occurred (Rosenberg et al. 2009, pp. 20–21) and may have provided opportunities for genetic exchange.

High Severity Wildfire. Wildfires are a natural part of the environment within the range of the western pond turtle, increased wildfire activity on the landscape is expected and is likely exacerbated by years of wildfire suppression (both by increasing fuel levels and increased shading) and increased temperatures and drought conditions; and increased wildfire activity on the landscape is also positively correlated with urbanization, roads, and recreation (Lang 1961, pp. 84–86; Crawford and Hall 1998, pp. 13–14; Hays et al. 1999, p. 11; Abatzoglou and Williams 2016, entire; Halofsky et al. 2020, pp. 2–16; Parks and Abatzoglou 2020, pp. 1, 5–6; Service 2023, pp. 64–65). Observed and projected trends in warmer and drier wildfire seasons in the western United States are likely to continue the trend toward higher-severity wildfires and larger burn areas (Parks and Abatzoglou 2020, pp. 1, 5–6). There is broad agreement among wildfire scientists that dry forests are becoming less resilient to fire under current and projected climate conditions (Moritz et al. 2018, p. 3). Large-scale wildfires would result in additional loss, degradation, fragmentation, and alteration of habitat, and secondary impacts from wildfire suppression activities, increased sedimentation (from debris flows), and increased predation (due to lack of cover) for the western pond turtle across its range (McDonald et al. 1996, pp. 62, 69, 71; Finger et al. 1997, pp. 136–137; Moritz et al. 2018, p. 3).

Conservation Efforts and Regulatory Mechanisms

The western pond turtle was listed as endangered by the State of Washington in 1993 (Hays et al. 1999, p. 23; WDFW 2022, p. 1). The WDFW developed a State recovery plan for the northwestern

pond turtle in 1999 (Hays et al. 1999, entire). Recovery efforts being implemented by the State include monitoring, bullfrog removal, habitat restoration, land acquisition and protection, and population enhancement (see Headstarting, Captive Breeding and Rearing, and Reintroductions, below). In Oregon, the species is State sensitive-critical and a species of greatest conservation need (ODFW 2021, p. 9). ODFW has developed a western pond turtle conservation strategy for Oregon, identified and implemented best management practices, developed an educational program, established a monitoring program, and conducted habitat enhancement projects for the northwestern pond turtle. In Nevada, the northwestern pond turtle is a species of conservation priority (Nevada State Wildlife Action Plan 2012, p. 77; Nevada Natural Heritage Program 2012, p. 11) and measures being implemented include population monitoring and education. In California, the species (both northwestern and southwestern pond turtle) is a species of special concern (CDFW 2023a, p. 53). Measures being implemented by the CDFW include research funding, population monitoring, conservation coordination, and education. These State efforts have identified conservation strategies and priorities, and the States have implemented efforts to conserve western pond turtles; however, outside Washington where it is state listed, these efforts do not provide regulatory protections for the species. The southwestern pond turtle is not listed in Mexico (NOM–059–SEMARNAT–2010, entire), although monitoring and survey work has identified the southwestern pond turtle in small populations throughout its range in Baja California, Mexico (Amphibian and Reptile Atlas 2023, entire).

As part of an effort to foster awareness and promote conservation of sensitive species, the Association of Zoos and Aquariums (AZA) implemented programs for numerous species including the western pond turtle (AZA 2017, entire). This effort has resulted in a multi-stakeholder supported agreement to coordinate western pond turtle conservation and develop a conservation strategy for the species across its range (Western Pond Turtle Range-wide Conservation Coalition 2020, entire; Western Pond Turtle Memorandum of Understanding (MOU) 2021, entire). This effort includes Federal agencies (the Service, U.S. Forest Service, Bureau of Land Management (BLM), NPS, Department of Defense (DOD), USGS), State agencies (WDFW, ODFW, Nevada Department of Wildlife (NDOW), CDFW), and nongovernmental conservation partners (AZA, Fauna Del Noroeste A.C.) throughout the range of both species. This coordinated strategy will assist in identifying priorities for conservation, will assist in obtaining funding for identified initiatives, will kick-start recovery planning, and will raise awareness of and provide educational information on both the northwestern and southwestern pond turtle.

Several Federal and State regulatory mechanisms, other than listing the northwestern pond turtle by the State of Washington, provide some protection for the western pond turtle or reduce or eliminate impacts to habitat from threats. These regulatory mechanisms include the California Environmental Quality Act, which requires minimizing significant effects to the environment; U.S. Forest Service/BLM's sensitive species conservation through the Northwest Forest Plan (USDA and USDI 1994, entire); CDFW's lake and streambed alteration agreements (California Fish and Game Code, section 1602), which provide measures to protect lake and stream habitat; CDFW's natural community conservation plans (NCCPs); and the Service's habitat conservation plans (HCPs) permitted under section 10(a)(1)(B) of the Act. Currently, 20 HCPs are being implemented that include western pond turtles as a covered species (10 for the northwestern pond turtle, and 10 for the southwestern pond turtle). Several of these in California are also joint NCCPs. In general, these plans assure that habitat will be set aside and managed for the western pond turtle as compensation for covered activities that occur in the plan area, such as planned urban development, and that measures will be implemented to avoid or minimize take of the covered species. Many of these plans have been in place for over 20 years and have implemented measures for habitat protection, habitat restoration, species monitoring, and provided educational benefits for the western pond turtle or its habitat. Of these 20 HCPs, several in the range of the southwestern pond turtle have been implemented since 1998 and have resulted in significant protection and management for the southwestern pond turtle. Two examples of large-scale HCPs in the range of the southwestern pond turtle include the 2004 Western Riverside County Multi-Species HCP (MSHCP) (Dudek and Associates 2003, entire) and the 1998 South County HCP in San Diego County (San Diego County 1998, entire). These two HCPs cover areas in the western portion of the southwestern pond turtle's range and help minimize the effects of urbanization, development, and other human activities as well as assist in maintaining populations of the southwestern pond turtle by establishing connected ecosystem preserves, controlling unauthorized access, monitoring habitat conditions, and maintaining and improving aquatic and upland habitat. Together, the two HCPs have established over 425,000 ac (171,992 ha) of preserve lands in the western portion of the southwestern pond turtle's range. Although not all of the preserve land is used by the southwestern pond turtle, the preserve land they do occupy within the two HCP areas is well connected and provides both aquatic and upland habitat. This level of habitat conservation and connectivity will reduce the current threats impacting the southwestern pond turtle and assist in maintaining populations by avoiding impacts from development and other habitat loss and allow the species to respond to the environmental variability of drought by providing connected habitat should conditions at a given site become unsuitable in a given year.

The DOD has implemented numerous integrated natural resources management plans (INRMPs) for their military installations through the Sikes Act Improvement Act of 1997 (16 U.S.C. 670a) including INRMPs for U.S. Marine Corps base at Camp Pendleton (DOD MCB Camp Pendleton 2018, entire) in San Diego County, U.S. Army bases at Camp Roberts (DOD Camp Roberts INRMP 2022, entire) and Fort Hunter Liggett (DOD Fort Hunter Liggett INRMP 2022, entire) in Monterey and San Luis Obispo County, and Vandenberg Space Force Base (DOD VSFB INRMP 2021, entire) in Santa Barbara County, California, which all include large areas within the range of the southwestern pond turtle. Some of the DOD military installations in the range of the northwestern pond turtle include: Joint Base Lewis-McChord in Washington; Air National Guard installations in Portland (142 Wing) and Klamath Falls (Kingsley Field) in Oregon; and Travis Air Force Base and Beale Air Force Base in California. The DOD military facilities in the range of the northwestern pond turtle are generally associated with airbases and do not contain large amounts of habitat for the northwestern pond turtle, except for Joint Base Lewis-McChord (U.S. Army/Air Force) which has developed an INRMP for their facilities (Joint Base

Lewis-McChord INRMP 2017, entire). However, populations in Washington are limited and the occupancy by northwestern pond turtle on Joint Base Lewis-McChord is unknown. Conservation measures and management for species in the INRMPs include establishing restrictions for vehicle use, habitat protections, monitoring, habitat enhancement, and establishment of best management practices for species and habitat protection.

Headstarting, Captive Breeding and Rearing, and Reintroductions

Headstarting is the process of collecting eggs or young from the wild and rearing them in captivity through the most vulnerable stages of their life cycle, and then releasing those individuals back into wild populations. Headstarting was initiated in Washington in 1990 (Hays et al. 1999, pp. 25–26) to bolster the last two known populations of western pond turtle left in the State (Hays et al. 1999, entire; Pramuk et al. 2013, p. 3; Hallock et al. 2017, p. iv). From 1991 through 2015, 2,200 captive-bred and wild-bred western pond turtles raised at the Woodland Park Zoo and Oregon Zoo have been released, increasing the number of sites for these turtles in Washington from two sites in 1993 to six sites today (Hallock et al. 2017, p. iv). The Washington State Recovery Plan indicates that headstarting and captive breeding should continue until northwestern pond turtle populations are sustainable without such intervention (Hays et al. 1999, p. 39). Due to the success of the headstarting program in bolstering the populations of northwestern pond turtle, the captive breeding has been discontinued. In reviewing the success of the headstarting program and commitment of the WDFW and other partners to continue the program, we consider headstarting and other conservation efforts (not including captive breeding) such as conducting habitat management efforts, investigating and managing shell disease, and predator control for the species to increase adult and hatchling survival to currently be sufficient for the conservation of the northwestern pond turtle in Washington (Anderson 2022, entire; Bergh and Wickhem 2022, p. 13; Hallock 2022, entire).

Headstarting of both northwestern pond turtles and southwestern pond turtles has been implemented to a limited degree by additional zoos and other partners in other parts of the two species' ranges (Spinks et al. 2003, pp. 260–261; Brown et al. 2015, pp. 4–16). Other reintroduction efforts in San Diego County have occurred that involved translocating western pond turtles from private ponds into restored habitat, often in conjunction with nonnative species removals (Molden et al. 2022, p. 2).

Current and Future Conditions

The current condition of a species may be described in terms of past and ongoing changes in a species' habitat, demographics, and distribution (Smith et al. 2018, p. 306). To assess the current condition of the northwestern pond turtle and southwestern pond turtle, we used the best scientific and commercial data available to describe past and ongoing changes in occupancy and impacts from the primary threats impacting the two species. We assessed the current and future conditions for both the northwestern and southwestern pond turtle by evaluating the health and distribution of western pond turtles in identified analysis units throughout the range of each species. The analysis units are delineated based on occupancy, genetic makeup, management regions, and ecological data depending on each State, and they stem from information gathered in collaboration with researchers and other stakeholders across the range of both species (Service 2023, pp. 33–37). Each of the analysis units contains multiple populations based on observation information. We identified 14 analysis units for the northwestern pond turtle: 2 analysis units in Washington, 7 in Oregon, and 5 in California (Service 2023, p. 34, figure 8, and p. 36, table 2). For the southwestern pond turtle, we identified six analysis units: five analysis units over the species' range in California and one analysis unit in Baja California, Mexico (Service 2023, p. 35, figure 9, and p. 37, table 3).

Modeling Population Growth and Probability of Extirpation

To assist in our analysis and quantitatively assess the current and future condition of the northwestern and southwestern pond turtle, we used results from two modeling efforts. For northwestern pond turtle analysis units in the State of Washington, we used information from a population viability analysis model (PVA) (Pramuk et al. 2013, entire) that looked at potential changes in the number of individuals over time based on various parameters including with and without bullfrog removal efforts and with or without headstarting efforts (Pramuk et al. 2013, pp. 19–28). Although the model is from 2013, the projections for the model start with slightly reduced population levels and therefore may slightly overestimate the rates of decline. To account for this potential overestimation we compared the model results to current population numbers and took any differences into account in our analysis. Drought is not explicitly incorporated into the Washington PVA but has been considered as part of our assessment of threats facing the northwestern pond turtle. We used a separate model for Washington due to its availability and because the populations in Washington have been extensively supplemented by headstarted turtles, so using this separate model avoided potentially conflicting results when compared to natural populations in other parts of the species' range.

For the remainder of the northwestern pond turtle analysis units in Oregon, Nevada, and California, as well as for 5 of the 6 analysis units in the range of the southwestern pond turtle, we used a single sex (female) stochastic stage-based (hatchling, juvenile, adult) matrix population model developed by researchers as part of our SSA analysis (Gregory and McGowan 2023, entire; Service 2023, appendix A). The model did not include information regarding the analysis unit in Baja California, Mexico (AU–6), due to the paucity of occurrence information for the unit (Service 2023, Appendix A). In the model, the researchers refer to declines of the northwestern and southwestern pond turtle as the ''probabilities of extinction'' in each analysis unit in Oregon, Nevada, and California. In this document, we present information from the model as probability of extirpation (locally or regionally extinct) to avoid confusion with the loss of either of the two species rangewide.

This model incorporated information on western pond turtle presence, specifically occurrence observations, as well as data on the primary threats identified for the northwestern and southwestern pond turtle (anthropogenic impacts, drought, and bullfrogs) as described above. The model projected land use change and drought conditions into the future by calculating annual rates of increase of moderate and extreme drought for representative concentration pathway (RCP) 4.5 (shared socioeconomic pathway (SSP 2)) and RCP 8.5 (SSP 5). RCPs are changes in carbon dioxide gas emissions based on land use pattern changes and other climate drivers. An RCP level of 4.5 represents mid-level emission scenario with some level of carbon dioxide emission reduction and an RCP of 8.5 represents continued carbon dioxide emission with little or no reduction. RCPs were developed explicitly for climate modeling into the

future based on the emission level, and, as a result, the socioeconomic characteristics used in RCPs were not standardized. SSPs further refine RCP emission levels to include other factors, such as standardized societal and economic patterns. The model also incorporated the spread of bullfrogs based on a continuation of the bullfrog's existing rates of distribution change at the analysis unit scale.

The modeling identified threats to the species or its habitat from human alteration of habitat and anthropogenic effects on the species (anthropogenic impacts), effects from nonnative bullfrogs, and the effects of drought conditions, which are influenced by the effects of climate change, to the year 2100 (approximately 75 years or three western pond turtle generations) (Gregory and McGowan 2023, entire; Service 2023, pp. 91–98). To model impacts from human alteration and land conversion, the modelers used data and projection information developed by the USGS and Environmental Protection Agency from the Integrated Climate and Land-Use Scenarios model (ICLUS) (Gregory and McGowan 2023, p. 22). The ICLUS project produces spatially explicit projections of human population and land-use that are based on Intergovernmental Panel on Climate Change's (IPCC) scenarios and pathways (Morefield et al. 2018, unpaginated). The model provided a continuous rate of change over time to the year 2100 and assigns probabilities of extirpation in each analysis unit for the two species in Oregon, Nevada, and California under two emission scenarios (RCP 8.5/SSP5 (scenario 1: higher emissions/higher human population growth impacts) and RCP 4.5/SSP2 (scenario 2: medium emissions/medium human population growth impacts)) (Gregory and McGowan 2023, pp. 18–22; Service 2023, pp. 102–105).

In the SSA report, we identified the results of the model from three time periods (2050, 2075, and 2100) to provide information for the two species' current and projected future condition in Oregon, Nevada, and California. Because the western pond turtle is a long-lived species, we consider results from the model at 2050 (approximately 25 years) (approximately one western pond turtle generation) to represent current condition of western pond turtles. The SSA report also provides results for discussion purposes to the year 2075 (approximately two generations) and to the year 2100 (approximately three generations) (Service 2023, pp. 69, 101–114). Because the results of the modeling in Oregon, Nevada, and California (Gregory and McGowan 2023, entire) provide information on a continuum to the year 2100 rather than specifically identified intermediate dates, in our analysis of future conditions, we considered a range of 50 to 75 years from now (between the year 2075 and 2100) to be our foreseeable future timeframe for both the northwestern pond turtle and southwestern pond turtle. This time range allows for the incorporation of the climate change information, projected human development changes, and additional impacts from bullfrogs on the northwestern pond turtle in Oregon, Nevada, and California, and the southwestern pond turtle in California, and this time range allows us to address how the impacts from these driving threats may impact the two species' resiliency over time. Our analysis of the northwestern and southwestern pond turtles' current and future redundancy and resiliency are assessed qualitatively based on past population trends and the life-history characteristics of the two species. Therefore, in addition to the modeling effort used to assist our determinations on resiliency, we also considered other factors not specifically part of the modeling efforts to determine the future condition of the northwestern pond turtle such as information on population persistence and species' longevity, the species' reproduction capabilities, known species distribution, the species' ability to use variable aquatic habitat, the variable ecological and environmental characteristics of habitat used across the species' range, regulatory mechanisms in place to protect the species, and any current management and rangewide conservation efforts and coordination being implemented for the species. Below, we provide information on the current and future conditions of the northwestern pond turtle and southwestern pond turtle separately.

Northwestern Pond Turtle—Current Condition

In Washington, historically the northwestern pond turtle was considered locally common. The species was listed as a WDFW sensitive species in 1981 and State threatened in 1983, and then was uplisted to State endangered in 1993 (Hays et al. 1999, p. 23). In 1990, the northwestern pond turtle in Washington was nearly extirpated in Puget Sound and other areas of the State and was found in two isolated populations, totaling only 150 individuals, near the Columbia Gorge. As a result of the northwestern pond turtle's reduced numbers, the WDFW and other partners initiated the headstarting program (see *Conservation Efforts and Regulatory Mechanisms,* above) and captive breeding program in 1990 and 1991, respectively (Hays et al. 1999, pp. 25–27).

The captive breeding efforts collected the last 12 western pond turtles from the Puget Sound area and placed them in a breeding program at the Woodland Park Zoo. The captive breeding program was successful and, along with the headstarting program, assisted in releasing captive-bred and wild-bred western pond turtles into the wild. The captive breeding program was discontinued after 1991, but the headstarting program is still being implemented. By 2015, these programs expanded the total number of populations to six (two reestablished populations in Puget Sound, two remnant populations in Columbia River Gorge, and two additional reestablished populations also in the Columbia River Gorge) and increased the total number of northwestern pond turtle individuals in the State to approximately 800–1,000 (Hallock et al. 2017, pp. 5–6).

More than 2,300 headstarted turtles have been released to these 6 sites since the program's inception and the total current population estimate in Washington remains near 1,000 individuals, although survey efforts at some of the sites have imperfect detection and may underestimate actual numbers, especially for detecting juvenile turtles (Hallock et al. 2017, p. 6; WDFW 2021, entire; Oregon Zoo 2022, entire; Woodland Park Zoo 2023, entire). The six sites are part of recovery efforts by the State and all are protected through landowner agreements or ownership by the WDFW (Hays et al. 1999, pp 36–45; Hallock et al. 2017, p. 7). Two of the sites in Skamania County (Pierce National Wildlife Refuge (Service-owned) and Beacon Rock sites (Washington State Parks-owned)) are within the dispersal distance for the species from each other (Hallock et al. 2017, p. 7). Two additional sites (one in Puget Sound area and one along the Columbia River Gorge) have populations of more than 250 individuals and are above the State-identified recovery goals for population size (Hays et al. 1999, p. 37; Hallock et al. 2017, p. 7). Despite these successes, the northwestern pond turtle is still heavily dependent on the headstarting program and the WDFW has committed to continue to implement the program as part of their recovery efforts for the northwestern pond turtle (Hays et al. 1999, entire; Hallock 2022, entire; Hallock and Anderson 2022, entire).

Resiliency

Resiliency is having sufficiently robust populations for the species to withstand stochastic events (*i.e.,* events arising from random factors). Analysis unit resiliency relies on sufficient suitable habitat in a condition to support multiple populations with enough individuals to withstand stochastic events. To evaluate resiliency for the northwestern pond turtle, we considered the modeling results, as well as the long-lived nature of the species and its ability to reproduce throughout its lifespan, habitat availability and quality, environmental conditions across this range of the species, the proximity of populations to each other and opportunities of dispersal between populations, the level of habitat fragmentation and habitat loss and conservation efforts being implemented across these areas by numerous Federal, State, and other entities.

For the northwestern pond turtle, we determined that resiliency (at the analysis unit level) is a function of the probability of extirpation as derived from the modeling results (Service 2023, pp. 96–97, 102–105, Appendix A). Specifically, the model uses quasi-extinction as the threshold under which the western pond turtle numbers within an analysis unit would be so small that it would no longer be viable (functionally extirpated) and unlikely to sustain populations in the wild. According to the Washington PVA, populations of northwestern pond turtle would decline significantly in the absence of headstarting (Pramuk et al. 2013, pp. 28–29). When looking at adult females only, the PVA identified an initial increase in abundance that reflected the transition of sub-adults to adults, where the number of adult females increased even as the overall population declined (Pramuk et al. 2013, pp. 26–27). Despite these overall declines, the PVA suggests that northwestern pond turtles are expected to persist in Washington, although at substantially reduced numbers through the year 2050 without headstarting (Pramuk et al. 2013, pp. 28–29; Service 2023, p. 114). However, based on our discussions with WDFW and those assisting in the headstarting program, our information gathering for the SSA, our work with researchers and zoos associated with the headstarting program, and the State's emphasis and commitment to northwestern pond turtle conservation and to the continuance of the implementation of the recovery goals for the species (including the headstarting and bullfrog removal programs), we do not anticipate that the headstarting efforts would cease now or in the near future due to WDFW's designation of the species as State endangered. As a result, we consider the northwestern pond turtle in Washington to currently have sufficient resiliency due to current conservation measures to provide for the current viability of the species.

In Oregon, Nevada, and California within all of the analysis units, population growth rate and abundance for the northwestern pond turtle are currently declining. However, based on species survey information and abundance modeling, numerous relatively large populations exist throughout the species range in these three States (Rosenberg et al. 2009, pp. 32–38; Manzo et al. 2021, pp. 493–495; Service 2023, 72–74). According to the modeling efforts, at the year 2050, the probability of extirpation in analysis units in Oregon, Nevada, and California ranges from approximately 6 percent in AU–11 in the North Central Valley unit in California to 15 percent in analysis unit 14 (AU–14) in the southern part of the species' range in the San Joaquin Valley unit in California using the RCP 8.5 climatic conditions and ranges from approximately 6 percent in AU–6 in the North Coast unit in Oregon to 15 percent in AU–14 using the RCP 4.5 climatic conditions. This equates to an overall probability of persistence of 85 to 94 percent in 2050 across analysis units in Oregon, Nevada, and California under either emission scenario (Gregory and McGowan 2023, entire; Service 2023, pp. 97–99 and Appendix A). Based on habitat availability and connectivity, relatively favorable environmental conditions lessening the effects of climate change, the number and distribution of occupied areas, the number of relatively large populations and their distribution throughout the three States, and the relatively low probabilities of extirpation identified above, we consider the northwestern pond turtle in Oregon, Nevada, and California to currently have sufficient resiliency.

Redundancy

Redundancy describes the ability of a species to withstand catastrophic events. To determine redundancy for the northwestern pond turtle, we assessed the number and distribution of sufficiently resilient analysis units relative to the scale of anticipated species-relevant catastrophic events, which entailed assessing the cumulative risk of catastrophes occurring within the species' range over time. These factors were assessed in terms of their potential influence on the ability of northwestern pond turtle populations to survive and recover after a plausible catastrophic event.

The northwestern pond turtle has been subject to historical habitat loss, alteration, and fragmentation and is still impacted by the legacy effects from such habitat impacts (Rosenberg et al. 2009, p. 40). Nonnative predators, such as bullfrogs and largemouth bass, are also a threat to northwestern pond turtles (Rosenberg et al. 2009, pp. 40–47; Manzo et al. 2021, p. 492). Based on standardized occupancy surveys that were conducted in 2018–2020 at 138 historical sites and 176 new sites in Oregon, the current occupancy information appears to indicate that there are fewer occupied areas when compared to historical information (Samara Group, LLC 2021, entire). However, the existing habitat availability and connectivity, population distribution, and size of some populations would help maintain the species in Oregon. In California, the most significant declines have occurred in the southern portion of its range and is associated with habitat loss, urbanization, and historical overutilization (Jennings et al. 1992, pp. 10–11; Jennings and Hayes 1994, pp. 101–102; Kelly et al. 2005, pp. 63, 70; Bury and Germano 2008, p. 001.6; Bettelheim and Wong 2022, pp. 7–12). According to modeling efforts and other status assessments, the parts of the species' range in Oregon and northern California currently are less likely to be subject to the extensive habitat losses that have occurred further south and still have numerous well distributed and well connected populations in this area (Thomson et al. 2016, p. 301; Gregory and McGowan 2023, entire; Service 2023, Appendix A). For the species' southern parts of its range in central California, the species has a higher probability of extirpation than the populations in Oregon and northern California; however, numerous populations with evidence of breeding do still occur in areas such as Merced, Fresno and Kern Counties and would also provide some level of redundancy as these areas are associated with permanent natural and artificially ponded habitats that are currently protected or maintained (Germano 2010, pp. 91–96; Gregory and McGowan 2023, entire; Service 2023, Appendix A).

In terms of current redundancy, the northwestern pond turtle is currently distributed across the analysis units in Washington, Oregon, Nevada, and California similarly to its historical distribution, with the majority of populations in northern California and Oregon. This spatial spread would most

likely protect the species from catastrophic events including wildfire, flooding events, and severe drought. As a result, the species would most likely continue to maintain its ability to withstand catastrophic events, particularly in the center of the range (Oregon and Northern California) due to this extensive distribution. Based on this information, we consider the northwestern pond turtle in Oregon, Nevada, and California to currently have sufficient redundancy.

Representation

Representation describes the ability of a species to adapt to changing environmental conditions. This includes both near-term and long-term changes in its physical (*e.g.,* climate conditions, habitat conditions, habitat structure, etc.) and biological (*e.g.,* pathogens, competitors, predators, etc.) environments. This ability of a species to adapt to these changes is often referred to as ''adaptive capacity.'' To assess the current condition of representation for the northwestern pond turtle, we considered the current diversity of ecological conditions and genetic make-up of the species throughout its range.

For current representation, the species exhibits ecological flexibility in habitat use, particularly different types of waterbodies and ecological conditions from the Pacific Northwest in Oregon to northern and central California and eastern Sierra Nevada in Nevada. Based on genetic analyses, the northwestern pond turtle in Oregon and northern California has lower genetic variation than those further south, despite covering a larger geographic area. Although genetic variation is lower in the northern portions of its range, researchers suggest this is due to a more relatively recent (on a geologic timescale, after the retreat of Pleistocene glaciation in the last ~15,000 years) range expansion rather than a reduction in available genetic make-up (Shaffer and Scott 2022, p. 6). In addition, based on the number and distribution of populations and modeling efforts on persistence to the year 2050 (Gregory and McGowan 2023, entire; Service 2023, Appendix A), we do not expect severe population declines or extirpations in the near-term across Washington, Oregon, Nevada, and California analysis units; therefore the species is likely to maintain its ability to adapt to changing environmental conditions in the near-term and currently has sufficient representation.

Northwestern Pond Turtle—Future Condition

In the future, impacts from land conversion, bullfrog predation, and increasing drought will continue throughout the 50- to 75-year timeframe (to the year 2100) we considered in our analysis. The level of impact on the northwestern pond turtle associated with these threats generally follows a latitudinal trend, with the southern analysis units having a more negative response and therefore poorer condition than the more northern analysis units.

Resiliency

In Washington, as discussed above, the northwestern pond turtle is heavily reliant on implementation of conservation measures and is expected to depend on headstarting, bullfrog control, and habitat management into the future (Hallock et al. 2017, p. 14). Population modeling efforts looking out approximately 100 years (year 2112) found that populations declined towards extirpation in the absence of headstarting and management (Pramuk et al. 2013, pp. 28–29). Declines in populations were tied to both adult and hatchling mortality rates, with bullfrog removal positively influencing population persistence (Service 2023, pp. 101–102). Small populations were shown in the model to persist in the future without headstarting as long as adult mortality is relatively low and hatchling mortality is reduced through habitat management and predator control (Pramuk et al. 2013, pp. 29 and 32). The current adult mortality rate is unknown and hatchling mortality is estimated to be high (above 85 percent). Because the northwestern pond turtle is a State endangered species and recovery goals for down and delisting have not been met, the WDFW is committed to continuing the conservation measures of headstarting, conducting habitat management efforts, investigating and managing shell disease, and implementing predator control for the species to increase adult and hatchling survival (Anderson 2022, entire; Bergh and Wickhem 2022, p. 13; Hallock 2022, entire). However, without the continuance of current management (*i.e.,* headstarting, predator control, and ongoing habitat management), we consider the northwestern pond turtle's resiliency in Washington to be in decline and question the ability of the species to withstand stochastic events in the future.

In the Oregon, Nevada, and California analysis units, we used the modeling efforts to inform resiliency into the future. Looking at conditions of the northwestern pond turtle in the 50–75 year timeframe, by the year 2075 (approximately the next 50 years), the modeling efforts identified some declines in population size for the species with the probabilities of extirpation of the analysis units ranging from 30 percent in AU–6 along the Oregon coast to 43 percent in AU–14 in the San Joaquin Valley and San Francisco Bay area in California under scenario 1 (RCP 8.5/SSP 5) and 29 percent in AU–5 in the Willamette Valley unit in Oregon to 42 percent in AU–14 under scenario 2 (RCP 4.5/SSP 2). By the year 2100 (approximately next 75 years), the probabilities of extirpation of populations in analysis units ranged from 46 percent in AU–10 in the Northern California unit to 59 percent in AU–14 under scenario 1 (RCP 8.5/SSP 5) and 47 percent in AU–11 to 59 percent in AU–14 under scenario 2 (Service 2023, pp. 101–105). These predicted results of extirpation at the end of the 75-year timeframe (year 2100) will most likely cause declines in all analysis units with some populations within the analysis units to become functionally extirpated and limit the ability of smaller populations or populations in fragmented habitats to respond to stochastic events and limit the population resiliency in those units. Table 2 below identifies the range of the probability of extirpation (highest and lowest percentage) of analysis units for the northwestern pond turtle in 2050, 2075, and 2100.

TABLE 2—NORTHWESTERN POND TURTLE RESILIENCY RANGES

[Probability of extirpation percentages]

Scenario	Year	High (relevant analysis unit)	Low (relevant analysis unit)
RCP 8.5	2050	15 (AU–14)	6 (AU–11).
	2075	43 (AU–14)	30 (AU–6).
	2100	59 (AU–14)	46 (AU–10).
RCP 4.5	2050	15 (AU–14)	6 (AU–6).

TABLE 2—NORTHWESTERN POND TURTLE RESILIENCY RANGES—Continued

[Probability of extirpation percentages]

Scenario	Year	High (relevant analysis unit)	Low (relevant analysis unit)
	2075	42 (AU–14)	29 (AU–5).
	2100	59 (AU–14)	47 (AU–11).

We consider the northwestern pond turtle's resiliency in Oregon, Nevada, and California will decline from current levels such that the species will be less able to withstand stochastic events in the future because of the fragmented nature of habitat and increased threat from anthropogenic impacts, predation from nonnative bullfrogs, and the effects of climate change from drought.

Therefore, looking at the overall resiliency of the northwestern pond turtle across its range, we have determined that the species' resiliency will decline across the majority of its range in the next 50–75 year timeframe.

Redundancy

Future redundancy of northwestern pond turtles is expected to decline due to the reduced number of populations across the range of the species. In Washington, as discussed, the species relies heavily on headstarting and other conservation actions to sustain populations in the wild. Although we expect those conservation measures to continue to be implemented for the northwestern pond turtle in the State in the future (Hallock and Anderson 2022, entire) the certainty of future funding mechanisms are not secure. In addition, the existing populations are small and dispersed with little connectivity or opportunity to bounce back from catastrophic events such as drought or high severity wildfire. In Oregon, Nevada, and California, the latent negative effects to habitat from land use conversion (urbanization and agriculture), impacts from the increased magnitude and frequency of wildfire, impacts from more frequent and intense drought conditions, and the continued effects from existing threats will cause further declines in populations. These declines are reflected in probability of extirpation for all analysis units (AU–3 through AU–14) for the northwestern pond turtle in Oregon, Nevada, and California. Under scenario 1 (RCP 4.5/SSP 2) the probabilities of extirpation are near 30 percent in 2075 and above 47 percent by the year 2100. Similar probabilities of extirpation are expected under scenario 2 (RCP 8.5/SSP 5) for 2075 and 2100. Therefore, in the future, we expect that northwestern pond turtle populations in Washington, Oregon, Nevada, and California to become reduced in size, distribution, and connectivity with numerous populations becoming functionally extirpated resulting in a decline in the ability to bounce back from catastrophic events.

Representation

Future representation of northwestern pond turtles is expected to be reduced. As discussed, the number and distribution of populations and the differing habitat conditions in which they occur is projected to decrease across all analysis units. This loss will likely reduce the species' genetic diversity and ability to adapt to changing environmental conditions under both scenarios. By 2100, continued declines would result in additional losses of representation. Besides analysis units in Washington, the southern-most northwestern pond turtle analysis unit (San Joaquin Valley, AU–14) has the highest probability of extirpation. Given that these turtles are at the lowest latitude and experience some of the highest temperatures across the range, loss of these individuals may result in a potential loss of adaptive capacity for increasing temperatures with climate change. Overall, in the 50–75 year timeframe, genetic diversity and adaptive capacity will be lost and we anticipate that the future representation of the northwestern pond turtle will be reduced.

Southwestern Pond Turtle—Current Condition

The current distribution of the southwestern pond turtle in California is similar to its historically occupied range except for the areas associated with the heavily urbanized areas of the Los Angeles basin, San Diego County, and other heavily developed areas along the California coast (Service 2023, pp. 76–77). Recent occurrence information in Baja California, Mexico, also identifies occurrence records throughout the historically occupied range of the species in Mexico (Amphibian and Reptile Atlas of Peninsular California 2023, entire).

Specific population abundance and trend information is lacking rangewide for the southwestern pond turtle, but estimates of selected localities have identified most populations in California and one location in Mexico to be made up of less than 50 individuals with a mean of 10 individuals (Manzo et al. 2021, pp. 493, 495; Service 2023, p. 78). Information on the southwestern pond turtle in Baja California, Mexico is limited mostly to occurrence information (Amphibian and Reptile Atlas of Peninsular California 2023, entire). The limited information available identifies the distribution of the southwestern pond turtle in Baja California, Mexico as being ''marginal'' (Macip-Ríos et al. 2015, p. 1053). This is reflected in the limited streams and isolated desert ponds or other similar habitats where they are currently known to occur. An assessment looking at the environmental vulnerability (an assessment of a species' distribution, habitat, and threats) of amphibians and reptiles in Mexico (Wilson et al. 2013, pp. 1–47), found the southwestern pond turtle to have an environmental vulnerability score of 17 out of 20 (Wilson et al. 2013, p. 29) and similar to the International Union of Conservation of Nature (IUCN) as being vulnerable (VU)(high risk of extinction) (IUCN 2012, p. 15).

Resiliency

In California, we used the modeling efforts (Gregory and McGowan 2023, entire) to assist in determining the current and future resiliency for the southwestern pond turtle. According to the modeling efforts, which takes into account threats to the species and its habitat, the probability of extirpation to the year 2050 for the analysis units is relatively low and ranges from approximately 21 percent (AU–1 Coast Range unit) to 24 percent (AU–3 Mojave unit) using the RCP 8.5 (SSP 5) climatic conditions and approximately 20 percent (AU–1) to 23 percent (AU–2 Ventura/Santa Barbara unit) using the RCP 4.5 (SSP 2) climatic conditions (Gregory and McGowan 2023, entire; Service 2023, Appendix A).

The current condition of the southwestern pond turtle in Mexico is expected to have sufficient resiliency. This is based on recent occupancy records (2014–2022) distributed in both new and previously known to be

occupied areas; in addition, the areas in which they occur are in relatively remote areas and not subject to development or other threats. Therefore, we would expect that the habitat and environmental conditions would be sufficient for southwestern pond turtle populations within Baja California, Mexico to be currently able continue to carry out their normal life history functions and be able to withstand stochastic events.

Based on this information, we consider southwestern pond turtle populations to currently withstand stochastic events such that the species currently has sufficient resiliency.

Redundancy

Because the threats facing the species are relatively uniform, the majority of populations are expected to maintain their distribution, and are not expected to be lost in the next 25 years, we expect the species will be able to maintain its ability to withstand catastrophic events. The southwestern pond turtle is currently distributed across all analysis units in California and Mexico similarly to their historical distribution, with the majority of occupancy in California. This broad distribution would most likely protect the species from catastrophic events including wildfire, flooding events, and severe drought. Based on this information, we consider southwestern pond turtle to currently have sufficient redundancy.

Representation

The southwestern pond turtle exhibits ecological flexibility in habitat use, particularly different types of waterbodies and ecological conditions from the arid portions of Mexico and the Mojave region in California to the moister areas along the California Coast Range to Monterey County. In addition, based on the number and distribution of populations and the probabilities of extirpation for each analysis unit identified in the modeling efforts to the year 2050 (Gregory and McGowan 2023, entire) (Service 2023, Appendix A), we expect the species can likely maintain its ability to adapt to changing environmental conditions in the near-term and it currently has sufficient representation.

Southwestern Pond Turtle—Future Condition

Resiliency

Across all southwestern pond turtle analysis units in California, populations declined for the duration of the model simulation, with the probability of extirpation rising over time. Model results were most sensitive to increases in drought, especially in the Ventura/Santa Barbara (AU–2), LA (AU–4), and Orange County/San Diego (AU–5) analysis units. The probability of extirpation for all the analysis units in 2075 was above 50 percent and ranged from 54 percent (AU–1) to 57 percent (AU–3) under scenario 1 (RCP 8.5 (SSP 5)) and 51 percent (AU–5) to 55 percent (AU–3) under scenario 2 (RCP 4.5 (SSP 2)). These results suggest that the populations in some of the analysis units are likely to become extirpated and that all populations across the species' range in California would be less able to withstand stochastic events within the next 50 years.

The probability of extirpation of all the analysis units in 2100 increases substantially to over 70 percent, ranging from 73 percent (AU–1) to 78 percent (AU–2) under scenario 1 and 70 percent (AU–5) to 73 percent (AU–2) under scenario 2 (Service 2023, pp. 107, 108 (figures 32 and 33)). This indicates a 70 to 78 percent likelihood of extirpation of the populations for each analysis unit in the next 75 years under either plausible future scenario. Under both scenarios, multiple analysis units are projected to be at risk of extirpation and resiliency would be reduced such that the species is less able to withstand environmental stochasticity. Table 3 below, identifies the range of the probability of extirpation (highest and lowest percentage) of analysis units for the southwestern pond turtle in 2050, 2075, and 2100.

TABLE 3—SOUTHWESTERN POND TURTLE RESILIENCY RANGES

[Probability of extirpation percentages]

Scenario	Year	High (relevant analysis unit)	Low (relevant analysis unit)
RCP 8.5	2050	24 (AU–3)	21 (AU–1).
	2075	57 (AU–3)	54 (AU–1).
	2100	78 (AU–2)	73 (AU–1).
RCP 4.5	2050	23 (AU–2)	20 (AU–1).
	2075	55 (AU–3)	51 (AU–5).
	2100	73 (AU–2)	70 (AU–5).

Redundancy

Based on projections of probability of extirpation, loss of all 5 analysis units in the U.S. is greater than 50 percent under both scenarios by 2075. Therefore, all U.S. analysis units are more likely than not to become functionally extinct in approximately 50 years. There is a possibility that the species could maintain some of its current distribution in those waterbodies most resistant to anthropogenic impacts, bullfrog predation, and drought, which would continue to offer some low level of redundancy for the species. However, increasing probability of extirpation across analysis units and contraction of the range mean that the species would be less likely to withstand catastrophic events under either future scenario in approximately 50 years.

By 2100, all California analysis units are substantially likely (greater than 70 percent) to be functionally extinct under both scenarios. Given the increasing probability of extirpation predicted across analysis units and contraction of the range, the species would be much less likely to withstand catastrophic events under either future scenario in approximately 75 years.

Representation

Representation of southwestern pond turtles would be reduced with extirpation of any analysis units. As stated above, based on probability of extirpation, all analysis units in the U.S. portion of the range have greater than a 50 percent probability of extirpation or are more likely than not to become functionally extinct by 2075 and have over a 70 percent probability of becoming functionally extinct by 2100. With projected losses in both future scenarios, the species may lose occupancy throughout most of its current distribution. Inbreeding depression and loss of genetic diversity

would be exacerbated as abundance declines across analysis units with increasing probability of population-level extirpations. Even without the overall extirpation of analysis units, additive loss of individuals over time leads to an overall decline in species genetic diversity due to increased probability of inbreeding, genetic drift, and increasing the potential for incorporating detrimental genetic traits into a population, which decreases adaptive potential (Palstra and Ruzzante 2008, entire). Therefore, under both future scenarios, representation in southwestern pond turtles is likely to be severely reduced in the next approximately 50 to 75 years, such that the species will be less able to adapt to changing conditions.

Determination of Status

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of an endangered species or a threatened species. The Act defines an ''endangered species'' as a species in danger of extinction throughout all or a significant portion of its range, and a ''threatened species'' as a species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether a species meets the definition of an endangered species or a threatened species because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the northwestern pond turtle and southwestern pond turtle. Below we summarize our assessment of status of the northwestern pond turtle and southwestern pond turtle under the Act.

Northwestern Pond Turtle: Status Throughout All of Its Range

The threats that are affecting the northwestern pond turtle throughout its range in Washington, Oregon, Nevada, and California include habitat loss, fragmentation, and alteration (Factor A), predation from nonnative species (Factor C), urbanization (including development and roads) (Factor A), and the effects of climate change and recreation (Factor E). In addition, in portions of its range, the northwestern pond turtle is impacted by disease (Factor C) and competition from nonnative turtles (Factor E).

In Washington, the condition of the northwestern pond turtle is considered to be conservation reliant due to the small number of occupied sites, low abundance, impacts from nonnative predators, and reliance of these populations on headstarting. A population viability assessment for Washington that looked at populations to the year 2112 suggested that the sites in that State are reliant on continuation of population augmentation via the headstarting program until bullfrog predation and adult and hatchling mortality are reduced (Pramuk et al. 2013, entire). The State of Washington has listed the northwestern pond turtle as endangered and WDFW has developed a recovery plan for the northwestern pond turtle that identifies that headstarting and captive breeding should continue until populations are sustainable without such intervention (Hays et al. 1999, p. 39). The captive breeding program was discontinued by the WDFW after initial efforts to maintain the northwestern pond turtle. Based on our discussions with WDFW, they intend to continue their emphasis and commitment to northwestern pond turtle conservation and continuance of the implementation of the recovery goals (except for captive breeding) for the species, and we do not anticipate that the headstarting efforts would cease now or in the foreseeable future. As discussed above, headstarting and other conservation efforts are required to maintain populations of the northwestern pond turtle in the wild in Washington. As a result, we consider the northwestern pond turtle in Washington to be conservation reliant in order to maintain sufficient resiliency, redundancy, and representation and provide for the continued viability of the species now and into the future.

In Oregon, Nevada, and California, based on occurrence information and some survey efforts, the northwestern pond turtle is still well distributed throughout its historical range. Some of the analysis units have at least one population with relatively large abundances and habitat connectivity between populations. The occupancy and distribution of the species covers Oregon and northern California Coast Ranges, Willamette Valley, Klamath Mountains, Trinity Mountains, eastern and southern Cascades in Oregon and California, Sacramento Valley, Carson River and other areas of Nevada, west slope of the Sierra Nevada foothills in California, as well as the majority of the species' range outside the southern San Joaquin Valley region (Rosenberg et al. 2009, pp. 31–38, 72–80; Thomson et al. 2016, pp. 297, 300–301; Manzo et al. 2021, p. 495; Service 2023, pp. 70–75). Populations within the Willamette Valley, Oregon (AU–5) and southwest Oregon (AU–9) and populations in northwestern California (AU–10) and into the northern and southern Sacramento Valley and northern San Joaquin Valley (AU–11, AU–12, AU–13) in California all contain a number of abundantly sized and connected populations. The number of individuals in several of these populations is over 50 with some over 100 (Service 2023, pp. 70–75). Based on modeling efforts to the year 2050 (our current condition timeframe) the probability of extirpation under both scenarios ranges from 5 to 9 percent in Oregon. As a result, despite some expected declines in abundance and distribution of individuals from negative habitat impacts (Factor A), nonnative predators (Factor C), and negative effects of climate change (Factor E), the populations of northwestern pond turtle in Oregon are likely to currently withstand stochastic and catastrophic events, maintain its ecological flexibility and likely be able to adapt to changing environmental conditions and thereby still has a sufficient degree of resiliency, redundancy, and representation to sustain populations in the near term.

In California and Nevada, as discussed above, parts of the historical distribution and abundance of the northwestern pond turtle have declined, especially in the southern parts of its range in the Central Valley of California associated with historical habitat loss, although some stable populations with relatively large abundance and reproduction do still occur within these areas in Merced, Fresno, and Kern Counties (Jennings et al. 1992; pp. 10–11; Kelly et al. 2005, pp. 63, 70; Bury and Germano 2008, p. 001.6; Germano 2010, 91–96; Bettelheim and Wong 2022, pp. 10–12). In Nevada, available historical distribution and status information is limited and additional research is needed (Nevada State Wildlife Action Plan 2012, pp. 44–45). However, information from the State's natural heritage program on vulnerability and conservation priority for the northwestern pond turtle does not suggest that the species' current abundance or distribution within its currently known occupied areas will change substantially by the year 2050; the northwestern pond turtle has been

assigned as a not vulnerable or presumed stable species for the State (Nevada Natural Heritage Program 2012, pp. 7 and 11). In California, the main threats facing the species include the latent impacts associated with historical habitat loss and fragmentation (Factor A), current urbanization (Factor A), nonnative species predation (Factor C), and the effects of climate change (Factor E) on habitat and the species. These threats continue to reduce and fragment habitat, reduce recruitment, and impact the ability of the species to maintain populations. However, due to the number and distribution of populations of the species, the amount of available habitat for the populations of the species to sustain themselves, and relatively low near-term (2050) probability of extirpation (6 to 15 percent) of the populations in all five analysis units in California (Service 2023, pp. 71 and 97, figures 13 and 26 respectively), we have concluded that although the impacts resulting from present-day threats are currently negatively affecting individuals of the northwestern pond turtle in California, the species still has a sufficient degree of resiliency, redundancy, and representation to sustain populations in the near term.

After evaluating threats to the species and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors as well as assessing the conservation measures in place for the species, we have determined that the northwestern pond turtle throughout all of its range in Washington, Oregon, Nevada, and California, is able to maintain viability with numerous populations that are well distributed across the species' range and those populations currently have sufficient resiliency, redundancy, and representation to sustain themselves in the wild. Thus, after assessing the best information available, we conclude that the northwestern pond turtle is not currently in danger of extinction throughout all of its range.

Therefore, we proceed with determining whether the northwestern pond turtle is likely to become endangered within the foreseeable future throughout all of its range. In considering the foreseeable future as it relates to the status of the northwestern pond turtle, we considered the timeframes applicable to the relevant risk factors (threats) to the species and whether we could draw reliable predictions about future exposure, timing, and scale of negative effects and the species' response to these effects. We considered whether we could reliably assess the risk posed by the threats to the species, recognizing that our ability to assess risk is limited by the variable quantity and quality of available data about the effects to the northwestern pond turtle and its response to those effects.

In the SSA report, we developed two future scenarios that range over an approximately 50- to 75-year timeframe to the years 2075 and 2100 that encompass the best information available for projected future conditions across the range of the northwestern pond turtle. This 50- to 75-year timeframe encompasses approximately two to three generations of western pond turtles and enabled us to consider the threats acting on the species and to draw conclusions on the species' response to those threats, and accordingly, we consider this 50- to 75-year range to be the period of foreseeable future for this species.

As discussed above, to assist in determining the future condition of the northwestern pond turtle, we used two modeling efforts, one for Washington (Pramuk et al. 2013, entire; Service 2023, pp. 101–102) and one for Oregon, Nevada, and California (Gregory and McGowan 2023, entire; Service 2023, pp. 101–105) (see *Modeling Population Growth and Probability of Extirpation,* above). These models looked at those threats most influential on determining the species' future condition. We also considered other factors not specifically part of the modeling efforts to determine the future condition of the northwestern pond turtle such as information on population persistence and species' longevity, the species' reproduction capabilities, known species distribution, the species' ability to use variable aquatic habitat, the variable ecological and environmental characteristics of habitat used across the species' range, regulatory mechanisms in place to protect the species, and any current management and rangewide conservation efforts and coordination being implemented for the species.

In Washington, modeling efforts looking out approximately 100 years using four management scenarios found that populations declined towards extirpation in the absence of headstarting and management within this timeframe (Pramuk et al. 2013, pp. 28–29). The four scenarios included: (1) maintaining current headstarting efforts; (2) complete cessation of headstarting without additional management; (3) continuing headstarting to year 20; and (4) continuing headstarting to year 20 with bullfrog removal efforts. Scenario 1 identified a short term increase then leveling of population numbers for the species into the future. Scenarios 2 and 3 each showed declines in populations which eventually lead to expected functional extirpation of the species, although at differing rates of decline, at or near the 100 year timeframe. Declines in populations were tied to both adult and hatchling mortality rates, with bullfrog removal positively influencing continued population persistence even under a scenario (scenario 4) where headstarting was discontinued after 20 years but bullfrog removal efforts were maintained (Pramuk et al. 2013, pp. 28–29, figure 6–4; Service 2023, pp. 101–102). WDFW has committed to manage for and conserve the northwestern pond turtle through implementation of its existing headstarting program, habitat management actions, disease control, and bullfrog removal activities as identified in its recovery plan for the species. These conservation measures will assist in maintaining and increasing adult and hatchling survival in the State. However, because the northwestern pond turtles in Washington are conservation reliant and require on-going management and commitment by the WDFW, the species in Washington would decline and become functionally extirpated in the foreseeable future should management efforts for the species cease.

In Oregon, Nevada, and California, modeling efforts of future resiliency of populations within our analysis units identified that individuals and populations of the northwestern pond turtle will most likely decline due to the threats from human activities and habitat loss, increased predation from nonnative bullfrogs, and increased impacts from the effects of climate change mostly attributed to drought. These threats would reduce resiliency, redundancy, and representation into the future. However, the threats, the magnitude of threats, and the species' response to the threats in both extent and timing are not uniform throughout the area, with populations in northern California and Oregon faring better over time than populations in more southerly parts of the species' range within the 50- to 75-year timeframe (Service 2023, pp. 102–103). This is partly due to past extensive habitat loss and fragmentation due to agriculture and urbanized land conversion leaving mostly small, isolated populations. However, rangewide, Federal, State, and local conservation efforts such as the HCPs/NCCPs, DOD facilities with INRMPs, BLM and Forest Service sensitive species management activities under the Northwest Forest Plan will continue to assist in conservation of the

northwestern pond turtle throughout its range.

According to the modeling efforts for Oregon, Nevada, and California, the range of the probabilities of extirpation across analysis units was estimated to be between 28 to 33 percent over the next approximately 50 years (year 2075), and between 45 to 60 percent over the next approximately 75 years (year 2100) (Gregory and McGowan 2023, entire; Service 2023, pp. 96–97 and 102–105). The analysis units most impacted and more likely (greater than 50 percent chance) of becoming extirpated by 2100 included areas in the San Joaquin Valley (AU–13 and AU–14), southern Sacramento Valley (AU–12) of California and areas in the Klamath Basin (AU–8), and an area along the Columbia River Gorge (AU–3) in Oregon (Service 2023, figure 30, p. 105). According to our modeling efforts, the species is likely to maintain populations throughout its range in the next 50 to 75 years in Oregon, Nevada, and California; however, the species is likely to lose its adaptability to variable environmental conditions and ability to use various habitat types and conditions, have reduced levels of reproduction, and have a low likelihood of responding to catastrophic events such as severe drought, extreme flooding events, or high severity wildfire occurring uniformly across the entire species' range (see Effects of Climate Change).

Therefore, due to the northwestern pond turtle's projected lower occupancy levels, abundance, connectivity, and distribution of populations within its range in Washington, Oregon, Nevada, and California, we have determined that the northwestern pond turtle will have a reduced level of resiliency, redundancy, and representation such that we anticipate the future threats will limit the species' ability to maintain populations in the wild in the next 50 to 75 years.

After our review of the threats identified above and cumulative effects facing the northwestern pond turtle, as well as existing regulatory mechanisms and conservation measures, we conclude that threats have and will likely continue to impact individuals or localized populations of the northwestern pond turtle especially in the southern portion of its range in California to the point where populations may become extirpated. As a result, we have determined that the northwestern pond turtle will have reduced resiliency, representation, and redundancy in the future such that it is likely to become in danger of extinction within the foreseeable future throughout all of its range.

Northwestern Pond Turtle: Status Throughout a Significant Portion of Its Range

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range. The court in *Center for Biological Diversity* v. *Everson,* 435 F. Supp. 3d 69 (D.D.C. 2020) (*Everson*), vacated the provision of the Final Policy on Interpretation of the Phrase ''Significant Portion of Its Range'' in the Endangered Species Act's Definitions of ''Endangered Species'' and ''Threatened Species'' (hereafter ''Final Policy''; 79 FR 37578, July 1, 2014) that provided if the Services determine that a species is threatened throughout all of its range, the Services will not analyze whether the species is endangered in a significant portion of its range.

Therefore, we proceed to evaluating whether the northwestern pond turtle is endangered in a significant portion of its range—that is, whether there is any portion of the species' range for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the ''significance'' question or the ''status'' question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species' range.

Following the court's holding in *Everson,* we now consider whether there are any significant portions of the northwestern pond turtle's range where the species is in danger of extinction now (*i.e.,* endangered). In undertaking this analysis for northwestern pond turtle, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify portions of the range where the species may be endangered.

In undertaking this analysis for northwestern pond turtle, we choose to address the status question first. We began by identifying portions of the range where the biological status of the species may be different from its biological status elsewhere in its range. For this purpose, we considered information pertaining to the geographic distribution of (a) individuals of the species, (b) the threats that the species faces, and (c) the resiliency condition of populations.

We evaluated the range of the northwestern pond turtle to determine if the species is in danger of extinction now or likely to become so within the foreseeable future in any portion of its range. The range of a species can theoretically be divided into portions in an infinite number of ways. We focused our analysis on portions of the species' range that may meet the Act's definition of an endangered species. For the northwestern pond turtle, we considered whether the threats or their effects on the species are greater in any biologically meaningful portion of the species' range than in other portions such that the species is in danger of extinction now in that portion.

For the northwestern pond turtle, we examined the following threats: habitat impacts, disease, predation, competition, recreation, collection, and the effects of climate change, including cumulative effects.

The threats associated with negative habitat conditions or availability, nonnative predators, and the effects of climate changes (drought and increased temperatures) are occurring throughout the range of the northwestern pond turtle to varying degrees. In the 14 analysis units we evaluated in Oregon, Nevada, and California a portion of the species' range within AU–14 associated with the lower elevations of the southern San Joaquin Valley in Tulare and Kern County, California has been subject to extensive past habitat loss and land use changes which have resulted in declines of the northwestern pond turtle (Frayer et al. 1989, p. 4; Jennings et al. 1992; pp. 10–11; Kelly et al. 2005, pp. 63, 70; Bury and Germano 2008, p. 001.6; Germano 2010, 91–96; Bettelheim and Wong 2022, pp. 10–12). Based on modeling efforts, this unit also had the highest probability of likely current and future extirpation based on the current lower levels of occurrence, human disturbance, nonnative predators, and impacts from climate change (drought) (Service 2023, figure 30, p. 105). The probability of extirpation for AU–14 as a whole, which also includes portions of Merced County and several other San Francisco Bay counties (see figure 8 and 13 in the SSA report (Service 2023, pp. 34 and 71 respectively)), is 15 percent in the year 2050 (current condition). Although these areas in the species' southern portion of its range in California were identified as being impacted to a greater degree than other portions of the species' range, numerous well established and breeding northwestern pond turtle populations still occur (observation information from 2013–2022) within AU–14 in these lower elevation areas, including but not

limited to areas in Merced, Fresno, and Kern Counties (Germano 2010, pp. 91–96; Thomson et al. 2016, pp. 301) and we find that the populations in these areas will maintain sufficient resiliency, redundancy, and representation currently. Therefore, we found no concentration of threats in any portion of the northwestern pond turtle's range at a biologically meaningful scale.

Although within the southern San Joaquin Valley portion of AU–14, some threats to the northwestern pond turtle are impacting individuals differently from how they are affecting the species elsewhere in its range, or the biological condition of the species differs from its condition elsewhere in its range, the best scientific and commercial data available do not indicate that the threats, or the species' responses to the threats, are such that the northwestern pond turtle is currently in danger of extinction in the identified portion. Based on the discussion outlined above, we find that the species is not in danger of extinction now in the southern San Joaquin Valley portion of AU–14.

Therefore, no portion of the northwestern pond turtle's range provides a basis for determining that the species is in danger of extinction in a significant portion of its range, and we determine that the species is likely to become in danger of extinction within the foreseeable future throughout all of its range. This determination does not conflict with the courts' holdings in *Desert Survivors* v. *U.S. Department of the Interior,* 321 F. Supp. 3d 1011, 1070–74 (N.D. Cal. 2018) and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d 946, 959 (D. Ariz. 2017) because, in reaching this conclusion, we did not apply the aspects of the Final Policy on Interpretation of the Phrase ''Significant Portion of Its Range'' in the Endangered Species Act's Definitions of ''Endangered Species'' and ''Threatened Species'' (79 FR 37578; July 1, 2014), including the definition of ''significant'' that those court decisions held to be invalid.

Northwestern Pond Turtle: Determination of Status

Our review of the best scientific and commercial information available indicates that the northwestern pond turtle meets the definition of a threatened species. Therefore, we propose to list the northwestern pond turtle as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

Southwestern Pond Turtle: Status Throughout All of Its Range

As discussed above, the threats that are affecting the southwestern pond turtle throughout its range in California and Baja California, Mexico, include impacts to habitat from land conversion and urbanization (including development and roads) (Factor A), predation from nonnative species (Factor C), and the effects of climate change and other anthropogenic impacts (Factor E). The impact of these threats has caused the distribution and abundance of the southwestern pond turtle to decline, especially in the southern parts of California that are associated with the developed and highly urbanized areas of southern Los Angeles, Orange, and San Diego Counties (AU–5), although some stable populations with relatively high abundance and evidence of reproduction do still occur in these areas, especially in areas further north along the California Coast Range outside urbanized areas (Jennings and Hayes 1994, pp. 99, 101; Thomson et al. 2016, p. 301). Status trends and abundance for areas in Baja California are not available, but information suggests that similar conditions exist for the species in Mexico, based on recent occupancy and distribution of populations of the species. Despite populations of the species being impacted by the existing threats, the species currently continues to maintain populations (Manzo et al. 2021, p. 495; Service 2023, pp. 75–80). This is supported by the modeling efforts (see Modeling Population Growth and Probability of Extirpation, above) developed for our analysis that found that probability of extirpation across southwestern pond turtle analysis unit was approximately 20 to 24 percent (76 to 80 percent probability of persistence) in the year 2050 (*i.e.,* current condition, representing one generation into the future) (Gregory and McGowan 2023, entire; Service 2023, pp. 97–99).

After evaluating threats to the southwestern pond turtle and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we have determined that the southwestern pond turtle is maintaining its viability due to the number and distribution of populations of the species, the current ability of the species to maintain its populations despite the existing threats, and relatively low current probability of extirpation of the species across its range (Service 2023, pp. 76 and 97, figures 15 and 26 respectively). We conclude that, although the impacts resulting from present-day threats are currently negatively affecting the southwestern pond turtle, the species still has a sufficient degree of resiliency, redundancy, and representation. As such, after assessing the best available information, we conclude that the southwestern pond turtle is not currently in danger of extinction.

Therefore, we proceed with determining whether the southwestern pond turtle is likely to become endangered within the foreseeable future throughout all of its range. In considering the foreseeable future as it relates to the status of the southwestern pond turtle, we considered the timeframes applicable to the relevant risk factors (threats) to the species and whether we could draw reliable predictions about future exposure, timing, and scale of negative effects and the species' response to these effects. We considered whether we could reliably assess the risk posed by the threats to the species, recognizing that our ability to assess risk is limited by the variable quantity and quality of available data about the effects to the southwestern pond turtle and its response to those effects.

In the SSA report, we developed two future scenarios that range over an approximately 50- to 75-year timeframe to the years 2075 and 2100 that encompass the best information available for projected future conditions across the range of the southwestern pond turtle. This 50- to 75-year timeframe encompasses approximately two to three generations of western pond turtles and enabled us to consider the threats acting on the species and to draw conclusions on the species' response to those threats, and accordingly, we consider this 50- to 75-year range to be the period of foreseeable future for this species. As discussed above (see Modeling Population Growth and Probability of Extirpation), we used modeling efforts (Gregory and McGowan 2023, entire; Service 2023, pp. 101–105) to assist in determining the future condition of the southwestern pond turtle. According to the modeling efforts developed for the southwestern pond turtle, the probability of extirpation for the species by the year 2075 (two generations) was estimated at greater than 50 percent across all analysis units, ranging from 54 percent to 57 percent under scenario 1 (RCP 8.5/SSP 5) and 51 percent to 55 percent under scenario 2 (RCP 4.5/SSP 2). The future impacts on the species would most likely include reduced distribution, abundance, and range contraction resulting in a reduced ability to withstand catastrophic events or adapt to changing environmental

conditions. The modeling results in the year 2100 (approximately three generations) identified continued declines for the species with the probability of extirpation estimated at greater than 70 percent in all analysis units, ranging from 73 percent to 78 percent under scenario 1 (RCP 8.5/SSP 5) and 70 percent to 73 percent under scenario 2 (RCP 4.5/SSP 2) (Gregory and McGowan 2023, entire; Service 2023, pp. 107–110).

Based on our projections of the future condition for the species in the next 50 to 75 years and the ongoing and increased threats to the species into the future from anthropogenic impacts, bullfrog predation, and increases in drought intensity due to climate change conditions, the species will have continued and increasing impacts on its abundance and connectivity between populations that will most likely cause the species to be increasingly less able to support itself into the future. Thus, after assessing the best available information, we conclude that the southwestern pond turtle is likely to become in danger of extinction within the foreseeable future throughout all of its range.

Southwestern Pond Turtle: Status Throughout a Significant Portion of Its Range

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so within the foreseeable future throughout all or a significant portion of its range. The court in *Center for Biological Diversity* v. *Everson,* 435 F. Supp. 3d 69 (D.D.C. 2020) (*Everson*), vacated the provision of the Final Policy on Interpretation of the Phrase ''Significant Portion of Its Range'' in the Endangered Species Act's Definitions of ''Endangered Species'' and ''Threatened Species'' (hereafter ''Final Policy''; 79 FR 37578, July 1, 2014) that provided if the Services determine that a species is threatened throughout all of its range, the Services will not analyze whether the species is endangered in a significant portion of its range.

Therefore, we proceed to evaluating whether the species is endangered in a significant portion of its range—that is, whether there is any portion of the species' range for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the ''significance'' question or the ''status'' question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species' range.

Following the court's holding in *Everson,* we now consider whether there are any significant portions of the species' range where the species is in danger of extinction now (*i.e.,* endangered). In undertaking this analysis for southwestern pond turtle, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify portions of the range where the species may be endangered.

We evaluated the range of the southwestern pond turtle to determine if the species is in danger of extinction now in any portion of its range. The range of a species can theoretically be divided into portions in an infinite number of ways. We focused our analysis on portions of the species' range that may meet the definition of an endangered species. For the southwestern pond turtle, we considered whether the threats or their effects on the species are greater in any biologically meaningful portion of the species' range than in other portions such that the species is in danger of extinction now in that portion.

We examined the following threats: habitat impacts, anthropogenic impacts, competition, and the effects of climate change, including cumulative effects. The current and expected future threat conditions and impacts from those threats on the southwestern pond turtle across its range are relatively uniform as informed by the modeling efforts used to determine the species' current and future conditions (Service 2023, p. 108, figure 32). The difference in the species' probability of extirpation across all analysis units varied only by a maximum of 4 percent between the highest and lowest analysis unit probabilities for both current and future conditions (Service 2023, p. 109, figure 33).

Based on this information, we found no biologically meaningful portion of the southwestern pond turtle's range where threats are impacting individuals differently from how they are affecting the species elsewhere in its range, or where the biological condition of the species differs from its condition elsewhere in its range such that the status of the species in that portion differs from any other portion of the species' range.

Therefore, no portion of the southwestern pond turtle's range provides a basis for determining that the species is in danger of extinction in a significant portion of its range, and we determine that the species is likely to become in danger of extinction within the foreseeable future throughout all of its range. This does not conflict with the courts' holdings in *Desert Survivors* v. *U.S. Department of the Interior,* 321 F. Supp. 3d 1011, 1070–74 (N.D. Cal. 2018) and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d 946, 959 (D. Ariz. 2017) because, in reaching this conclusion, we did not apply the aspects of the Final Policy, including the definition of ''significant'' that those court decisions held to be invalid.

Southwestern Pond Turtle: Determination of Status

Our review of the best available scientific and commercial information indicates that the southwestern pond turtle meets the definition of a threatened species. Therefore, we propose to list the southwestern pond turtle as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

Available Conservation Measures for the Northwestern and Southwestern Pond Turtle

Conservation measures provided to species listed as endangered or threatened species under the Act include recognition as a listed species, planning and implementation of recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness, and conservation by Federal, State, Tribal, and local agencies, private organizations, and individuals. The Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species. The protection required by Federal agencies, including the Service, and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Section 4(f) of the Act calls for the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

The recovery planning process begins with development of a recovery outline made available to the public soon after a final listing determination. The recovery outline guides the immediate implementation of urgent recovery actions while a recovery plan is being developed. Recovery teams (composed of species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) may be established to develop and implement recovery plans. The recovery planning process involves the identification of actions that are necessary to halt and reverse the species' decline by addressing the threats to its survival and recovery. The recovery plan identifies recovery criteria for review of when a species may be ready for reclassification from endangered to threatened (''downlisting'') or removal from protected status (''delisting''), and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Revisions of the plan may be done to address continuing or new threats to the species, as new substantive information becomes available. The recovery outline, draft recovery plan, final recovery plan, and any revisions for each species will be available on our website as they are completed (*https://www.fws.gov/program/endangered-species*), or from our Ventura Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, Tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (*e.g.,* restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and Tribal lands.

If these species are listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost-share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the States of Washington, Oregon, Nevada, and California would be eligible for Federal funds to implement management actions that promote the protection or recovery of the northwestern pond turtle and southwestern pond turtle, as applicable to each species' range. Information on our grant programs that are available to aid species recovery can be found at: *https://www.fws.gov/service/financial-assistance.*

Although the northwestern pond turtle and southwestern pond turtle are only proposed for listing under the Act at this time, please let us know if you are interested in participating in recovery efforts for these species. Additionally, we invite you to submit any new information on the northwestern pond turtle and southwestern pond turtle whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7 of the Act is titled Interagency Cooperation and mandates all Federal action agencies to use their existing authorities to further the conservation purposes of the Act and to ensure that their actions are not likely to jeopardize the continued existence of listed species or adversely modify critical habitat. Regulations implementing section 7 are codified at 50 CFR part 402.

Section 7(a)(2) states that each Federal action agency shall, in consultation with the Secretary, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Each Federal agency shall review its action at the earliest possible time to determine whether it may affect listed species or critical habitat. If a determination is made that the action may affect listed species or critical habitat, formal consultation is required (50 CFR 402.14(a)), unless the Service concurs in writing that the action is not likely to adversely affect listed species or critical habitat. At the end of a formal consultation, the Service issues a biological opinion, containing its determination of whether the Federal action is likely to result in jeopardy or adverse modification.

In contrast, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. Although the conference procedures are required only when an action is likely to result in jeopardy or adverse modification, action agencies may voluntarily confer with the Service on actions that may affect species proposed for listing or critical habitat proposed to be designated. In the event that the subject species is listed or the relevant critical habitat is designated, a conference opinion may be adopted as a biological opinion and serve as compliance with section 7(a)(2).

Examples of discretionary actions for the northwestern pond turtle and southwestern pond turtle that may be subject to conference and consultation procedures under section 7 are land management or other landscape-altering activities on Federal lands administered by the U.S. Forest Service, Bureau of Land Management, National Park Service, or Department of Defense as well as actions on State, Tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat—and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or carried out by a Federal agency—do not require section 7 consultation. Federal agencies should coordinate with the local Service Field Office (see **FOR FURTHER INFORMATION CONTACT**) with any specific questions on section 7 consultation and conference requirements.

It is the policy of the Services, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify to the extent known at the time a species is listed, specific activities that will not be considered likely to result in violation of section 9 of the Act. To the extent possible, activities that will be considered likely to result in violation will also be identified in as specific a manner as possible. The intent of this policy is to increase public awareness of the effect of a proposed listing on proposed and ongoing activities within the range of the species proposed for listing. Although most of the prohibitions in section 9 of the Act apply to endangered species, sections 9(a)(1)(G) and 9(a)(2)(E) of the Act prohibit the violation of any regulation under section 4(d) pertaining to any threatened species of fish or wildlife, or threatened species of plant, respectively. Section 4(d) of the Act

directs the Secretary to promulgate protective regulations that are necessary and advisable for the conservation of threatened species. As a result, we interpret our policy to mean that, when we list a species as a threatened species, to the extent possible, we identify activities that will or will not be considered likely to result in violation of the protective regulations under section 4(d) for that species.

At this time, we are unable to identify specific activities that will or will not be considered likely to result in violation of section 9 of the Act beyond what is already clear from the descriptions of prohibitions and exceptions established by protective regulation under section 4(d) of the Act.

Questions regarding whether specific activities would constitute violation of section 9 of the Act should be directed to the Ventura Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

II. Proposed Rule Issued Under Section 4(d) of the Act

Background

Section 4(d) of the Act contains two sentences. The first sentence states that the Secretary shall issue such regulations as she deems necessary and advisable to provide for the conservation of species listed as threatened species. The U.S. Supreme Court has noted that statutory language similar to the language in section 4(d) of the Act authorizing the Secretary to take action that she ''deems necessary and advisable'' affords a large degree of deference to the agency (see *Webster* v. *Doe,* 486 U.S. 592, 600 (1988)). Conservation is defined in the Act to mean the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Additionally, the second sentence of section 4(d) of the Act states that the Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2), in the case of plants. Thus, the combination of the two sentences of section 4(d) provides the Secretary with wide latitude of discretion to select and promulgate appropriate regulations tailored to the specific conservation needs of the threatened species. The second sentence grants particularly broad discretion to the Service when adopting one or more of the prohibitions under section 9.

The courts have recognized the extent of the Secretary's discretion under this standard to develop rules that are appropriate for the conservation of a species. For example, courts have upheld, as a valid exercise of agency authority, rules developed under section 4(d) that included limited prohibitions against takings (see *Alsea Valley Alliance* v. *Lautenbacher,* 2007 WL 2344927 (D. Or. 2007); *Washington Environmental Council* v. *National Marine Fisheries Service,* 2002 WL 511479 (W.D. Wash. 2002)). Courts have also upheld 4(d) rules that do not address all of the threats a species faces (see *State of Louisiana* v. *Verity,* 853 F.2d 322 (5th Cir. 1988)). As noted in the legislative history when the Act was initially enacted, ''once an animal is on the threatened list, the Secretary has an almost infinite number of options available to [her] with regard to the permitted activities for those species. [She] may, for example, permit taking, but not importation of such species, or [she] may choose to forbid both taking and importation but allow the transportation of such species'' (H.R. Rep. No. 412, 93rd Cong., 1st Sess. 1973).

The provisions of this proposed 4(d) rule would promote conservation of the northwestern pond turtle and southwestern pond turtle by encouraging management of the habitat for both species in ways that facilitate conservation for each species. The provisions of this proposed rule are one of many tools that we would use to promote the conservation of the northwestern pond turtle and southwestern pond turtle. This proposed 4(d) rule would apply only if and when we make final the listing of the northwestern pond turtle and southwestern pond turtle as threatened species.

As mentioned previously in Available Conservation Measures for the Northwestern and Southwestern Pond Turtle, section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, even before the listing of any species or the designation of its critical habitat is finalized, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of critical habitat proposed to be designated for such species.

These requirements are the same for a threatened species with a species-specific 4(d) rule. For example, as with an endangered species, if a Federal agency determines that an action is ''not likely to adversely affect'' a threatened species, it will require the Service's written concurrence (50 CFR 402.13(c)). Similarly, if a Federal agency determinates that an action is ''likely to adversely affect'' a threatened species, the action will require formal consultation with the Service and the formulation of a biological opinion (50 CFR 402.14(a)).

Provisions of the Proposed 4(d) Rule for the Northwestern and Southwestern Pond Turtles

Exercising the Secretary's authority under section 4(d) of the Act, we have developed a proposed rule that is designed to address the northwestern pond turtle's and southwestern pond turtle's conservation needs. As discussed previously in Summary of Biological Status and Threats, we have concluded that the northwestern pond turtle and southwestern pond turtle are likely to become in danger of extinction within the foreseeable future primarily due to threats associated with the ongoing residual effects of past habitat alteration, increased predation from nonnative bullfrogs, and the effects associated with climate change. Section 4(d) requires the Secretary to issue such regulations as she deems necessary and advisable to provide for the conservation of each threatened species and authorizes the Secretary to include among those protective regulations any of the prohibitions that section 9(a)(1) of the Act prescribes for endangered species. We find that, if finalized, the protections, prohibitions, and exceptions in this proposed rule as a whole satisfy the requirement in section 4(d) of the Act to issue regulations deemed necessary and advisable to provide for the conservation of the northwestern pond turtle and southwestern pond turtle.

The protective regulations we are proposing for the northwestern pond turtle and southwestern pond turtle incorporate prohibitions from section 9(a)(1) to address the threats to the species. Section 9(a)(1) prohibits the following activities for endangered wildlife: importing or exporting; take; possession and other acts with unlawfully taken specimens; delivering, receiving, carrying, transporting, or shipping in interstate or foreign commerce in the course of commercial activity; or selling or offering for sale in interstate or foreign commerce. This protective regulation includes all of

these prohibitions because the northwestern pond turtle and southwestern pond turtle are at risk of extinction in the foreseeable future and putting these prohibitions in place will help to prevent further declines, preserve the two species' remaining populations, slow their rates of decline, and decrease negative effects from other ongoing or future threats.

In particular, this proposed 4(d) rule would provide for the conservation of the northwestern pond turtle and southwestern pond turtle by prohibiting the following activities, unless they fall within specific exceptions or are otherwise authorized or permitted: importing or exporting; take; possession and other acts with unlawfully taken specimens; delivering, receiving, carrying, transporting, or shipping in interstate or foreign commerce in the course of commercial activity; or selling or offering for sale in interstate or foreign commerce.

Under the Act, ''take'' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Some of these provisions have been further defined in regulations at 50 CFR 17.3. Take can result knowingly or otherwise, by direct and indirect impacts, intentionally or incidentally. Regulating take would help preserve the two species' remaining populations and potentially slow the two species' future declines. Therefore, we propose to prohibit take of the northwestern pond turtle and southwestern pond turtle, except for take resulting from those actions and activities specifically excepted by the 4(d) rule.

Exceptions to the prohibition on take would include all of the general exceptions to the prohibition against take of endangered wildlife, as set forth in 50 CFR 17.21 and certain other specific activities that we propose for exception, as described below.

The proposed 4(d) rule would also provide for the conservation of the two species by allowing exceptions that incentivize conservation actions that, while they may have some minimal level of take of the northwestern pond turtle and southwestern pond turtle, are not expected to rise to the level that would have a negative impact (*i.e.,* would have only de minimis impacts) on the two species' conservation. As described in more detail below, the proposed exceptions to these prohibitions are expected to have negligible impacts to the northwestern pond turtle and southwestern pond turtle and their habitat.

We note that the long-term viability of the northwestern pond turtle and southwestern pond turtle, as with many wildlife species, is intimately tied to the condition of their habitat. As described in our analysis of the two species' status, one of the major threats to the northwestern pond turtle and southwestern pond turtle's continued viability is habitat loss, degradation, and fragmentation resulting from past or current anthropogenic impacts, nonnative bullfrogs, and impacts from an increase and intensity of drought conditions. The exceptions we have determined are appropriate to include for the northwestern pond turtle and southwestern pond turtle include: wildfire suppression and forest management activities; habitat restoration activities specifically identified for the two species otherwise not covered under other permitting processes as coordinated with the Service; nonnative bullfrog removal; and because the northwestern pond turtle and southwestern pond turtle can use various aquatic habitats and often take advantage of artificial ponds such as those developed for livestock, we are proposing to provide an exception for routine ranching activities associated with maintenance of livestock ponds by private landowners. The exceptions we are considering are outlined below.

(1) Forest or wildland management activities that are conducted for the purpose of and in accordance with an established forest or fuels management plan and that include measures that minimize impacts to the species and its aquatic habitat for the purposes of reducing the risk or severity of catastrophic wildfire or maintaining the minimum clearance (defensible space) requirement to provide reasonable fire safety and to reduce wildfire risks consistent with State fire codes or local fire codes or ordinances. These measures include prescribed burns, fuel reduction activities, maintenance of fuel breaks, and defensible space maintenance actions.

(2) Habitat restoration activities conducted as part of nonpermitted Federal or State habitat restoration plans that are developed in coordination with the Service or the Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife, California Department of Fish and Wildlife, or Nevada Department of Wildlife that are for the purpose of northwestern pond turtle and/or southwestern pond turtle conservation as appropriate. Measures may include enhancement of nesting sites, clearing of pond or stream habitat of material associated with debris flows, and improving basking areas for the species.

(3) Nonnative bullfrog removal activities that include bullfrog trapping, gigging, shooting with air guns (using nonlead ammunition), dipnetting, or hand catching. Activities that disrupt habitat (*e.g.,* vegetation removal, dewatering) or that may indiscriminately harm or kill wildlife or aquatic organisms (*e.g.,* use of chemicals, electro-shocking) are not included in this exception. Northwestern pond turtle or southwestern pond turtles that are caught alive as part of nonnative bullfrog removal must be returned to their source location.

(4) Routine management and maintenance of livestock ponds, including maintenance and management of berms and dams to maintain livestock water supplies, by landowners. The intentional introduction into a livestock pond of species that may prey on northwestern pond turtle or southwestern pond turtle adults, juveniles, or eggs is not included in this exception.

We described above the prohibitions that apply to threatened species. We may under certain circumstances issue permits to carry out one or more otherwise-prohibited activities. The regulations that govern permits for threatened wildlife state that the Director may issue a permit authorizing any activity otherwise prohibited with regard to threatened species. These include permits issued for the following purposes: for scientific purposes, to enhance propagation or survival, for economic hardship, for zoological exhibition, for educational purposes, for incidental taking, or for special purposes consistent with the purposes of the Act (50 CFR 17.32). The statute also contains certain exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

We recognize the special and unique relationship with our State natural resource agency partners in contributing to conservation of listed species. State agencies often possess scientific data and valuable expertise on the status and distribution of endangered, threatened, and candidate species of wildlife and plants. State agencies, because of their authorities and their close working relationships with local governments and landowners, are in a unique position to assist us in implementing all aspects of the Act. In this regard, section 6 of the Act provides that we must cooperate to the maximum extent practicable with the States in carrying out programs authorized by the Act. Therefore, any qualified employee or agent of a State conservation agency that is a party to a cooperative agreement

with us in accordance with section 6(c) of the Act, who is designated by his or her agency for such purposes, would be able to conduct activities designed to conserve the northwestern pond turtle and/or the southwestern pond turtle that may result in otherwise prohibited take without additional authorization.

Nothing in this proposed 4(d) rule would change in any way the recovery planning provisions of section 4(f) of the Act, the consultation requirements under section 7 of the Act, or our ability to enter into partnerships for the management and protection of the northwestern pond turtle and/or southwestern pond turtle. However, interagency cooperation may be further streamlined through planned programmatic consultations for the species between us and other Federal agencies, where appropriate. We ask the public, particularly State agencies and other interested stakeholders that may be affected by the proposed 4(d) rule, to provide comments and suggestions regarding additional guidance and methods that we could provide or use, respectively, to streamline the implementation of this proposed 4(d) rule (see Information Requested, above).

III. Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.,* range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.,* migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that each Federal action agency ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of designated critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation also does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Rather, designation requires that, where a landowner requests Federal agency funding or authorization for an action that may affect an area designated as critical habitat, the Federal agency consult with the Service under section 7(a)(2) of the Act. If the action may affect the listed species itself (such as for occupied critical habitat), the Federal agency would have already been required to consult with the Service even absent the designation because of the requirement to ensure that the action is not likely to jeopardize the continued existence of the species. Even if the Service were to conclude after consultation that the proposed activity is likely to result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must implement ''reasonable and prudent alternatives'' to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat).

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information from the SSA report and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; the recovery plan for the species; articles in peer-reviewed journals; conservation plans developed by States and counties; scientific status surveys and studies; biological assessments; other unpublished materials; or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is

unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act; (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions found in the 4(d) rule. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of the species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of those planning efforts calls for a different outcome.

Critical Habitat Determinability

Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

(i) Data sufficient to perform required analyses are lacking, or

(ii) The biological needs of the species are not sufficiently well known to identify any area that meets the definition of ''critical habitat.''

When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the northwestern pond turtle and southwestern pond turtle and habitat characteristics where the two species are located. A careful assessment of the economic impacts that may occur due to a critical habitat designation is still ongoing, and we are in the process of working with our Federal partners, Tribes, and State and other partners in acquiring the complex information needed to perform that assessment. Therefore, due to the current lack of data sufficient to perform required analyses, we conclude that the designation of critical habitat for the northwestern pond turtle and southwestern pond turtle is not determinable at this time. The Act allows the Service an additional year to publish a critical habitat designation that is not determinable at the time of listing (16 U.S.C. 1533(b)(6)(C)(ii)).

Required Determinations

Clarity of the Rule

We are required by E.O.s 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(1) Be logically organized;

(2) Use the active voice to address readers directly;

(3) Use clear language rather than jargon;

(4) Be divided into short sections and sentences; and

(5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

Regulations adopted pursuant to section 4(a) of the Act are exempt from the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) and do not require an environmental analysis under NEPA. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This includes listing, delisting, and reclassification rules, as well as critical habitat designations and species-specific protective regulations promulgated concurrently with a decision to list or reclassify a species as threatened. The courts have upheld this position (*e.g., Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995) (critical habitat); *Center for Biological Diversity* v. *U.S. Fish and Wildlife Service,* 2005 WL 2000928 (N.D. Cal. Aug. 19, 2005) (concurrent 4(d) rule)).

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), E.O. 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with federally recognized Tribes on a government-to-government basis. In accordance with Secretary's Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes. During the development of the SSA report for the western pond turtle, we asked for information and concerns from all the federally recognized Tribes in the range of the two species in Washington, Oregon, Nevada, and California. We did not receive any information regarding the western pond turtle from any Tribe. We will continue to work with Tribal entities during the development of the final rule for listing of the northwestern pond turtle and southwestern pond turtle and the designation of critical habitat for the two species.

References Cited

A complete list of references cited in this rulemaking is available on the internet at *https://www.regulations.gov* and upon request from the Ventura Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and the Service's Ecological Field Offices in the Pacific Northwest and Pacific Southwest Regions.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

■ 2. In § 17.11, in paragraph (h), amend the List of Endangered and Threatened Wildlife by adding entries for ''Turtle, northwestern pond'' and ''Turtle, southwestern pond'' in alphabetical order under REPTILES to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
*	*	*	*	* * *
REPTILES				
*	*	*	*	* * *
Turtle, northwestern pond.	*Actinemys marmorata*.	Wherever found ..	T	[**Federal Register** citation when published as a final rule]; 50 CFR 17.42(p) [4d].
Turtle, southwestern pond.	*Actinemys pallida*	Wherever found ..	T	[**Federal Register** citation when published as a final rule]; 50 CFR 17.42(p) [4d].
*	*	*	*	* * *

■ 3. As proposed to be amended at 86 FR 62434 (November 9, 2021), § 17.42 is further amended by adding paragraph (p) to read as follows:

§ 17.42 Special rules—reptiles

* * * * *

(p) Northwestern pond turtle (*Actinemys marmorata*) and Southwestern pond turtle (*Actinemys pallida*).

(1) *Prohibitions.* The following prohibitions that apply to endangered wildlife also apply to the northwestern pond turtle and southwestern pond turtle. Except as provided under paragraph (p)(2) of this section and §§ 17.4 and 17.5, it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or cause to be committed, any of the following acts in regard to these species:

(i) Import or export, as set forth at § 17.21(b) for endangered wildlife.

(ii) Take, as set forth at § 17.21(c)(1) for endangered wildlife.

(iii) Possession and other acts with unlawfully taken specimens, as set forth at § 17.21(d)(1) for endangered wildlife.

(iv) Interstate or foreign commerce in the course of commercial activity, as set forth at § 17.21(e) for endangered wildlife.

(v) Sale or offer for sale, as set forth at § 17.21(f) for endangered wildlife.

(2) *Exceptions from prohibitions.* In regard to these species, you may:

(i) Conduct activities as authorized by a permit under § 17.32.

(ii) Take, as set forth at § 17.21(c)(2) through (c)(4) for endangered wildlife.

(iii) Take, as set forth at § 17.31(b).

(iv) Possess and engage in other acts with unlawfully taken wildlife, as set forth at § 17.21(d)(2) for endangered wildlife.

(v) Take incidental to an otherwise lawful activity caused by:

(A) Forest or wildland management activities that are conducted for the purpose of and in accordance with an established forest or fuels management plan and that include measures that minimize impacts to the species and its aquatic habitat for the purposes of reducing the risk or severity of catastrophic wildfire or maintaining the minimum clearance (defensible space) requirement to provide reasonable fire safety and to reduce wildfire risks consistent with State fire codes or local fire codes or ordinances. These measures include prescribed burns, fuel reduction activities, maintenance of fuel breaks, and defensible space maintenance actions.

(B) Habitat restoration activities conducted as part of nonpermitted Federal or State habitat restoration plans that are developed in coordination with the Service or the Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife, California Department of Fish and Wildlife, or Nevada Department of Wildlife that are for the purpose of northwestern pond turtle and/or southwestern pond turtle conservation as appropriate.

(C) Nonnative bullfrog removal activities that include bullfrog trapping, gigging, shooting with air guns (using only nonlead ammunition), dipnetting, or hand catching. Activities that disrupt habitat (*e.g.,* vegetation removal, dewatering) or that may indiscriminately harm or kill wildlife or aquatic organisms (*e.g.,* use of chemicals, electro-shocking) are not included in the exception in this paragraph (p)(2)(v)(C). Northwestern pond turtle and southwestern pond turtles that are caught alive as part of nonnative bullfrog removal must be returned to their source location.

(D) Routine management and maintenance of livestock ponds, including maintenance and management of berms and dams to maintain livestock water supplies, by landowners. The intentional introduction into a livestock pond of species that may prey on northwestern pond turtle or southwestern pond turtle adults, juveniles, or eggs is not included in the exception in this paragraph (p)(2)(v)(D).

* * * * *

Janine Velasco,

Acting Director, U.S. Fish and Wildlife Service.

[FR Doc. 2023–21685 Filed 10–2–23; 8:45 am]

BILLING CODE 4333–15–P

APPENDIX E

Jurisdictional Delineation Supplemental Memo for 2nd CE Revalidation

This page intentionally left blank.

UltraSystems
environmental•management•planning

MEMO

DATE: Friday, July 07, 2023 (text revised August 8, 2023)

PROJECT #: OC Loop Segments O, P, and Q Coyote Creek Bikeway Project
2nd CE Revalidation - 7154

RE: 2nd Supplemental Jurisdictional Delineation Memo and Impacts to Jurisdictional Waters Mapbook for CE 2nd Revalidation, District 12-ORA, ATPL-5955(112)

The following attached mapbook shows updated impacts to jurisdictional waters for minor project design changes, additional easements, and additional temporary construction work areas.

Table 1 shows the proposed project changes will result in approximately 0.51 acre of new additional temporary impacts to waters of the U.S. (WOUS) (Ordinary High Water Mark [OHWM]). Table 2 shows the proposed project changes will result in approximately 0.74 acre of new additional temporary impacts to waters of the State (WOS) (California Department of Fish and Wildlife top-of-bank [CDFW TOB]). There would be no change to the type of permits required, which include a Clean Water Act (CWA) Section 404 Nationwide Permit, a Section 408 Authorization from the U.S. Army Corps of Engineers (USACE) to alter a "Civil Works" project, a CWA Section 401 Water Quality Certification, and a §1602 California Fish and Game Code (FGC) Lake or Streambed Alteration Agreement from the CDFW.

Table 1
NEW ADDITIONAL TEMPORARY IMPACTS TO WATERS OF THE U.S. (OHWM)

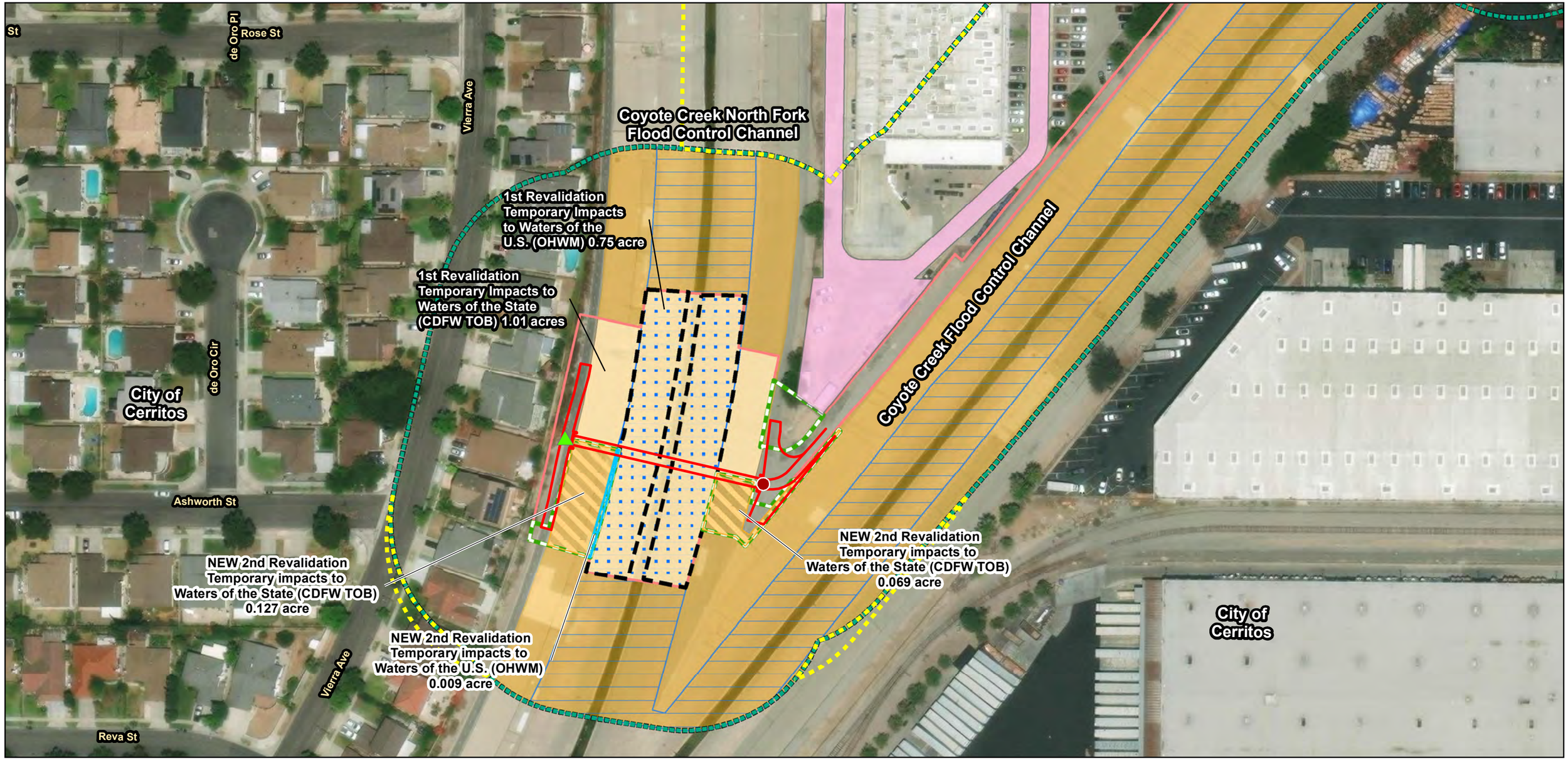
Project Segment	Acres of Temporary Impacts to WOUS (OHWM)
Segment O	0.019
Segment P	0.163
Segment Q	0.328
Total	**0.51**

Table 2
NEW ADDITIONAL TEMPORARY IMPACTS TO WATERS OF THE STATE (CDFW TOB)

Project Segment	Acres of Temporary Impacts to WOS (CDFW TOB)
Segment O	0.205
Segment P	0.197
Segment Q	0.333
Total	**0.735**

Corporate Office – Orange County
16431 Scientific Way
Irvine, CA 92618-4355

Telephone: 949.788.4900
Facsimile: 949.788.4901
Website: www.ultrasystems.com



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

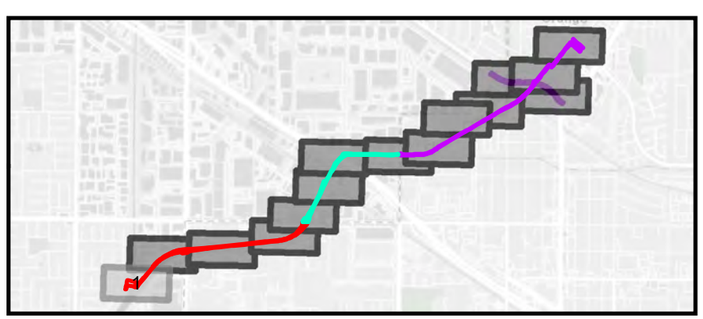
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

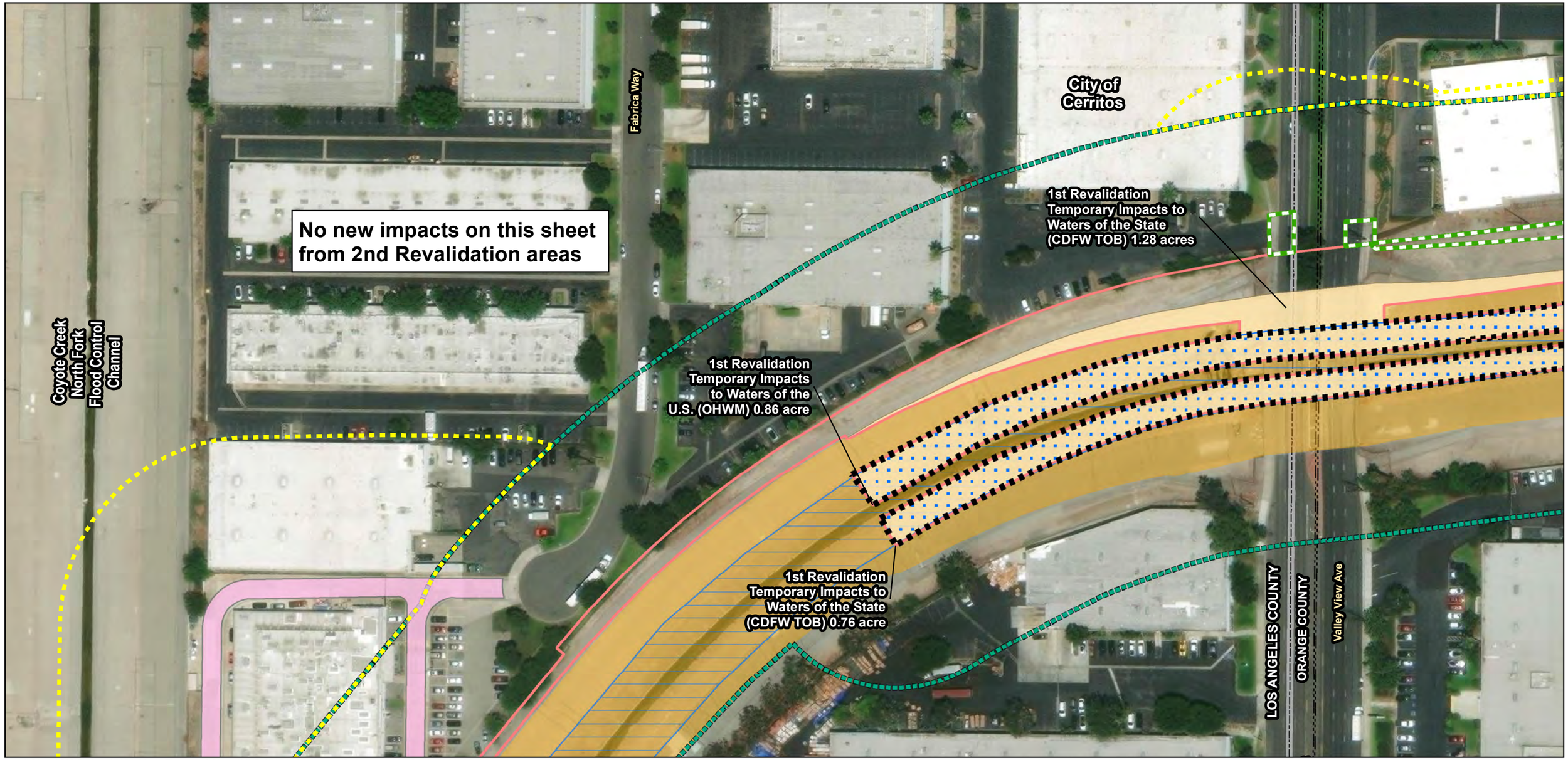
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Proposed Bikeway Alignment
- NEW Other Temp Work Areas
- NEW Temporary Construction Easement (TCE)
- Segment O (Original plus 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding Only
- NEW Proposed Location of Geotechnical Boring Only
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- 1st Revalidation Staging Area 1
- City Boundary
- County Boundary

OC Loop Segments O, P, and Q 2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 1 of 15

UltraSystems environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

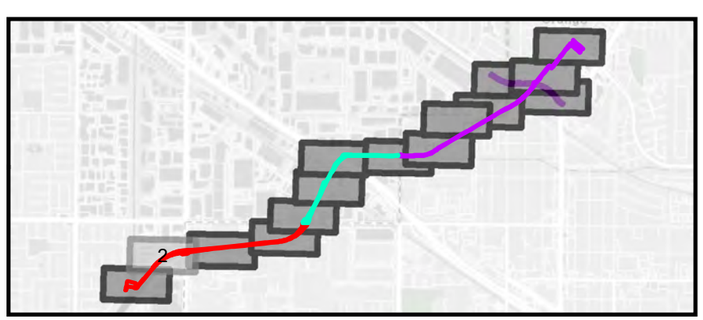
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Other Temp Work Areas
- NEW Temporary Construction Easement (TCE)
- Segment O (Original plus 1st Revalidation)
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- 1st Revalidation Staging Area 2
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 2 of 15

UltraSystems environmental • management • planning

City of
Buena Park

limpact calculations on Map 2
include this area

No new impacts on this sheet
from 2nd Revalidation areas

Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

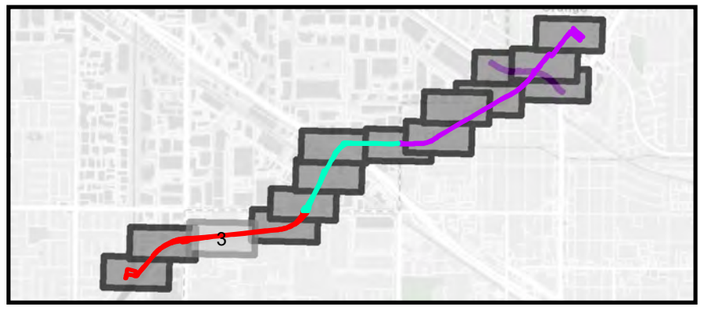
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

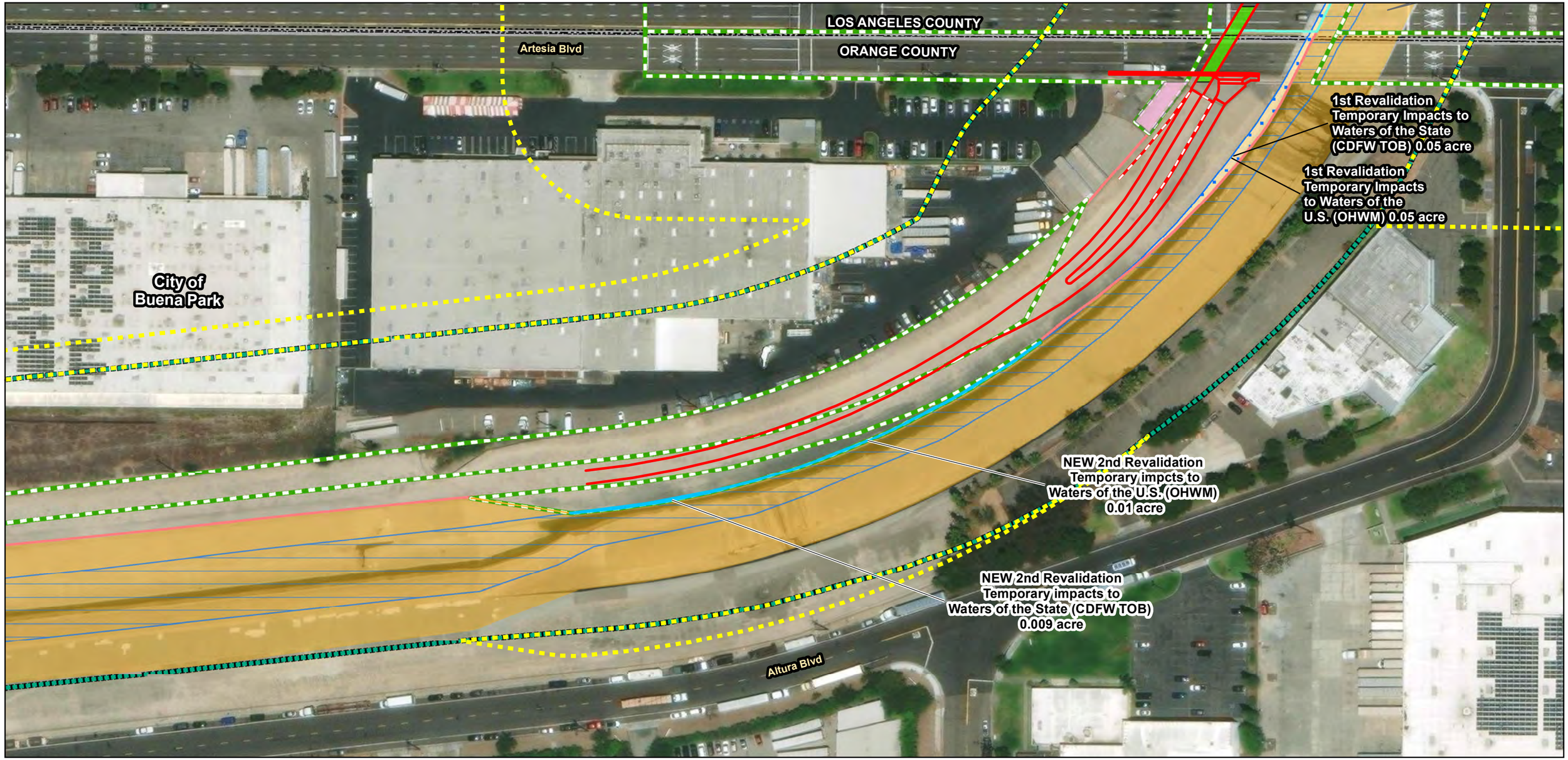
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Other Temp Work Areas
- Segment O (Original plus 1st Revalidation)
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- 1st Revalidation Staging Area 2
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to
Jurisdictional Waters
2nd Revalidation

Map 3 of 15

UltraSystems
environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

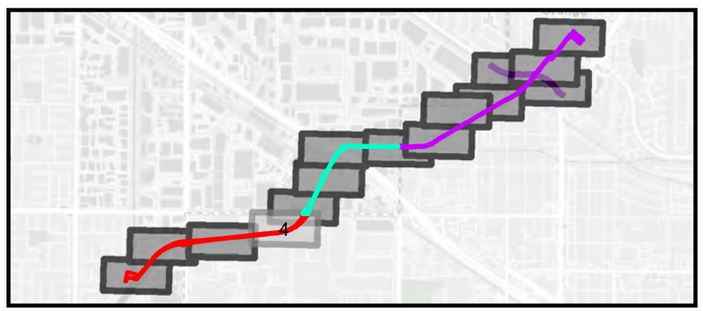
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

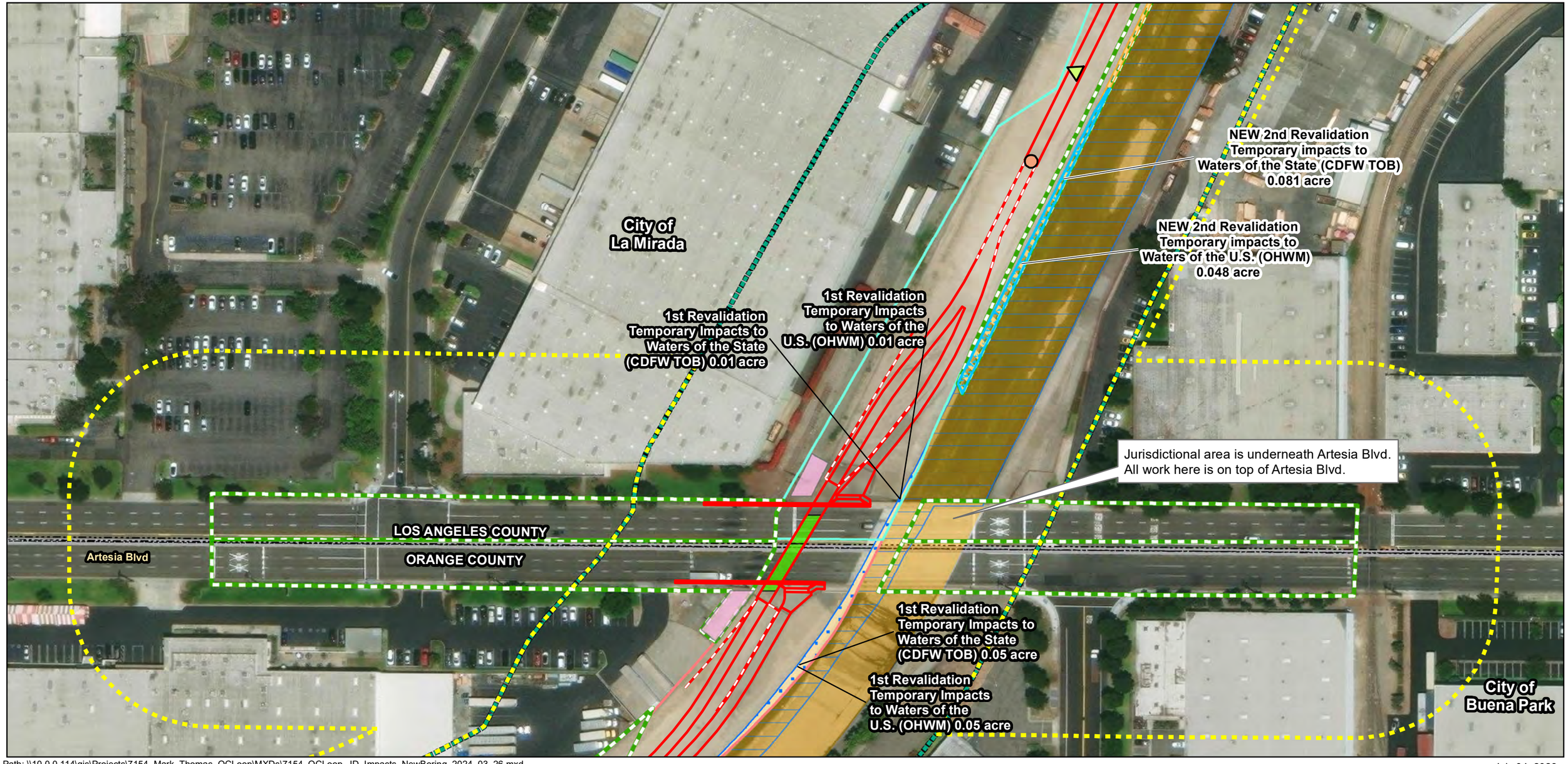
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment O (Original plus 1st Revalidation)
- Segment P (Original plus 1st Revalidation)
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters
2nd Revalidation

Map 4 of 15

UltraSystems
environmental • management • planning



Path: \\10.0.0.114\gis\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OCLoop_JD_Impacts_NewBoring_2024_03_26.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

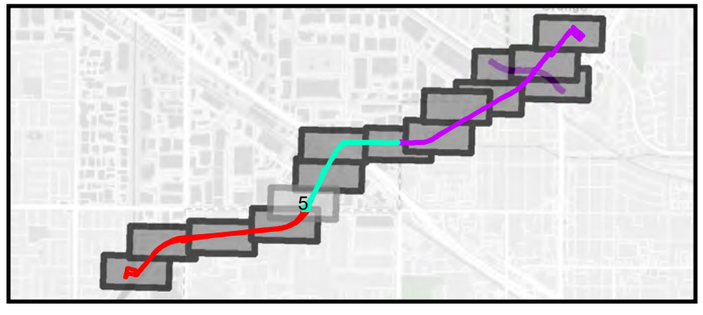
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

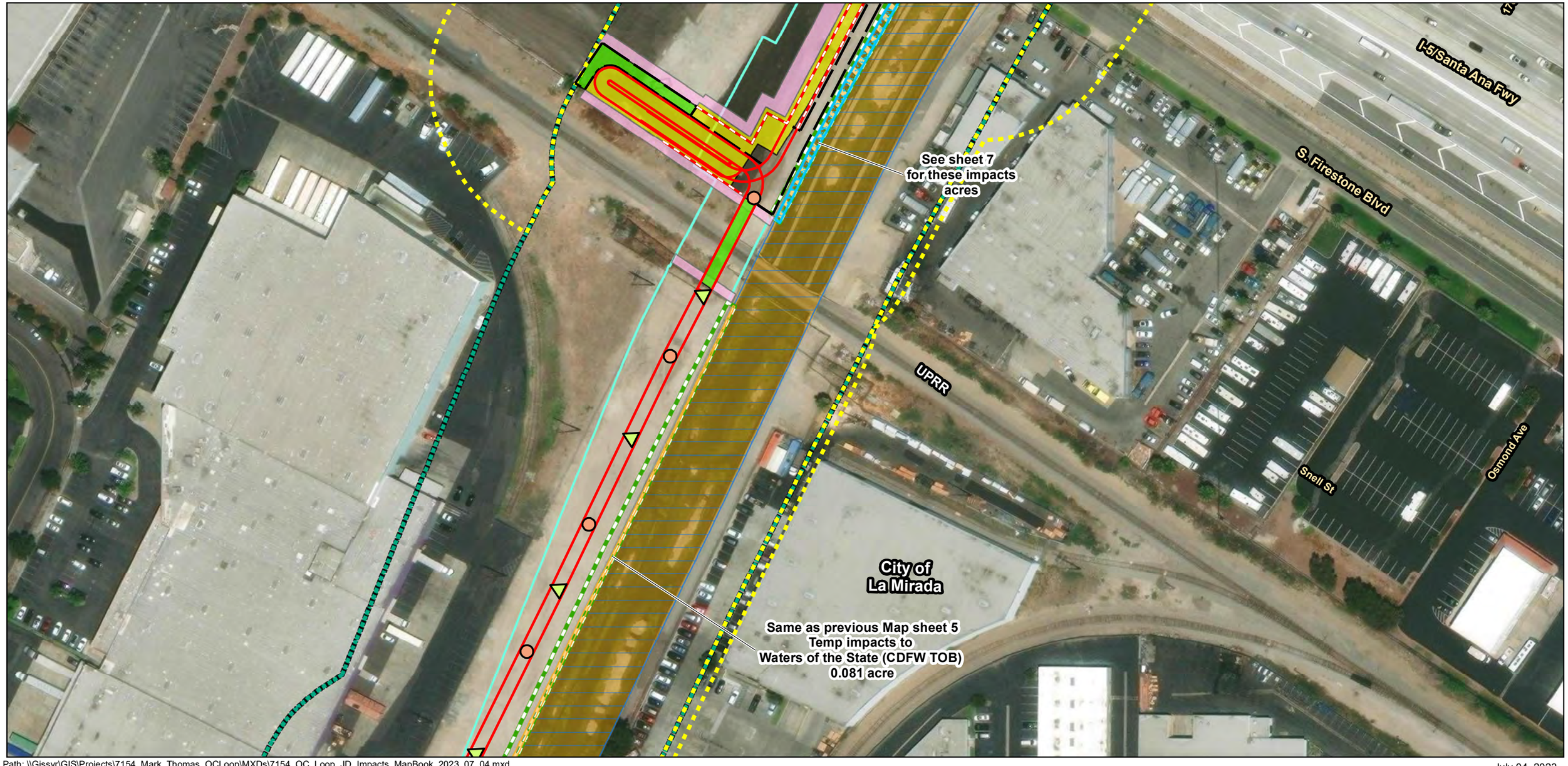
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment O (Original plus 1st Revalidation)
- Segment P (Original plus 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- City Boundary
- County Boundary

OC Loop Segments O, P, and Q 2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 5 of 15

UltraSystems environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

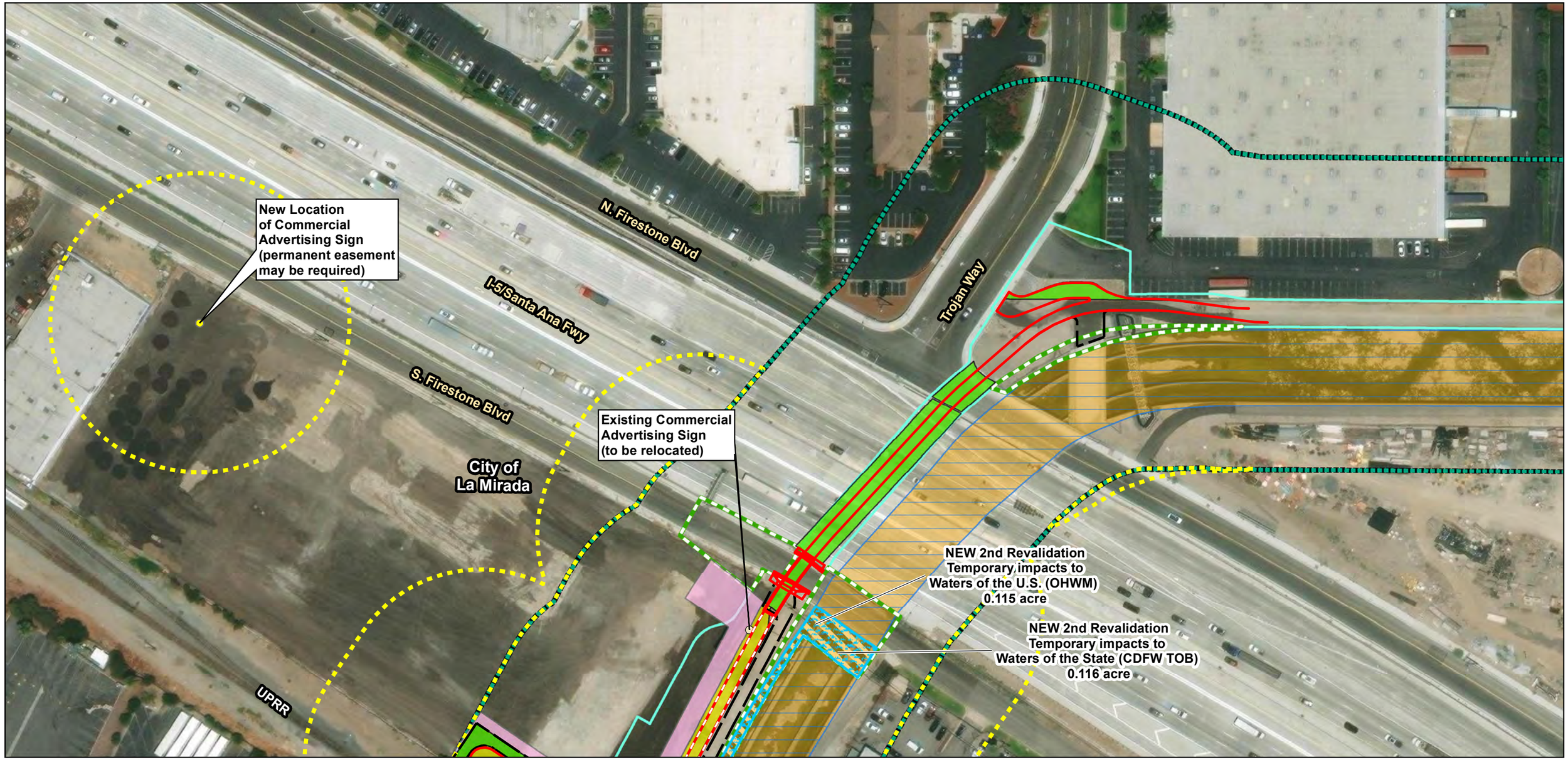
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- Segment P (Original plus 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- City Boundary
- County Boundary

OC Loop Segments O, P, and Q 2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 6 of 15

UltraSystems environmental • management • planning



Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

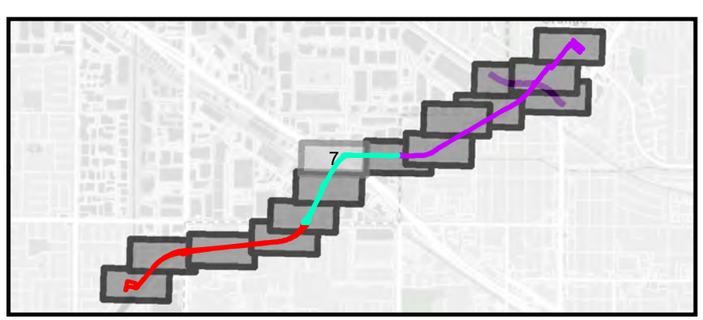
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

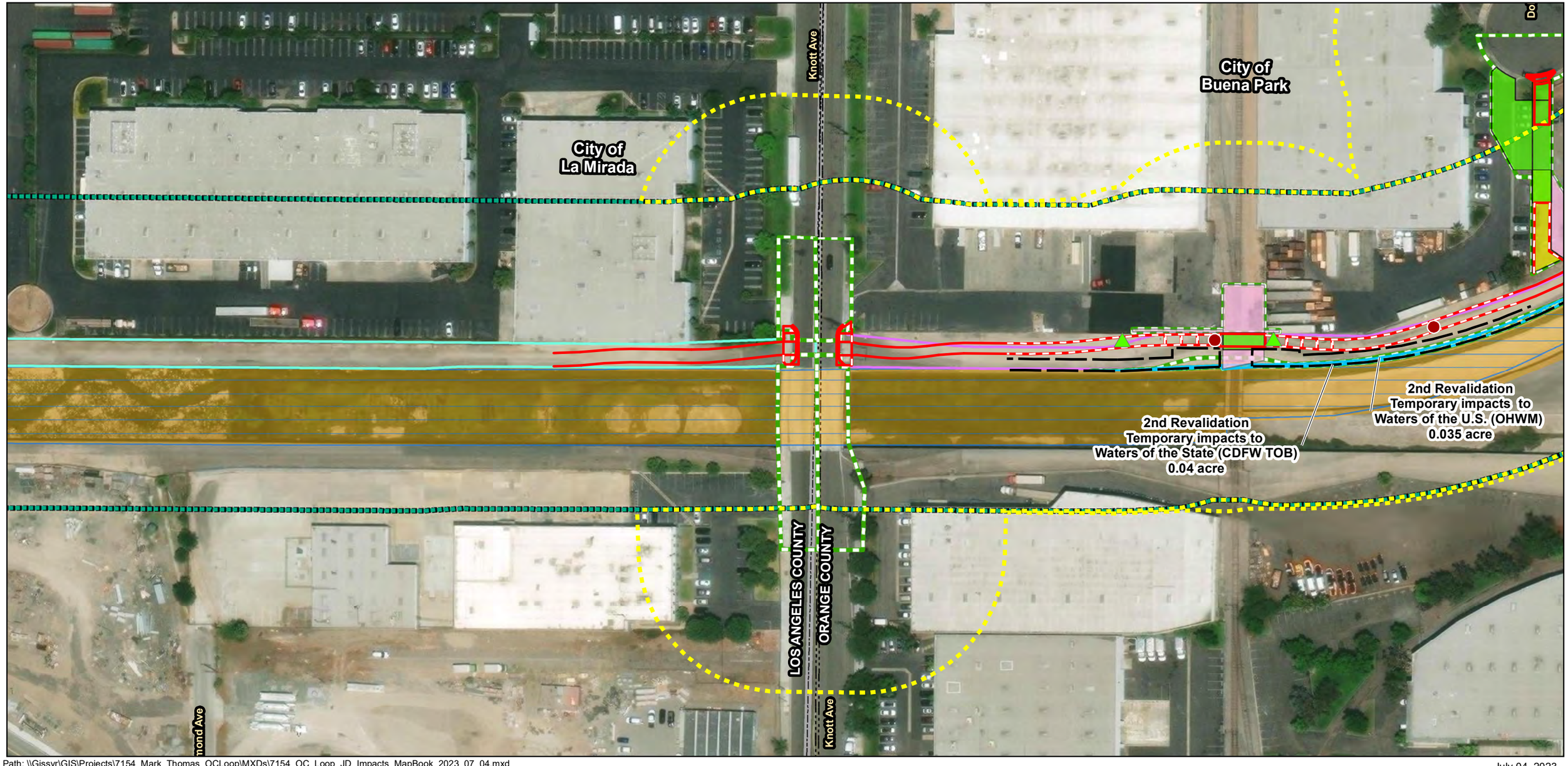
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- Segment P (Original plus 1st Revalidation)
- Existing Commercial Advertising Sign (to be relocated)
- New Location of Commercial Advertising Sign (permanent easement may be required)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to
Jurisdictional Waters
2nd Revalidation

Map 7 of 15

UltraSystems
environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

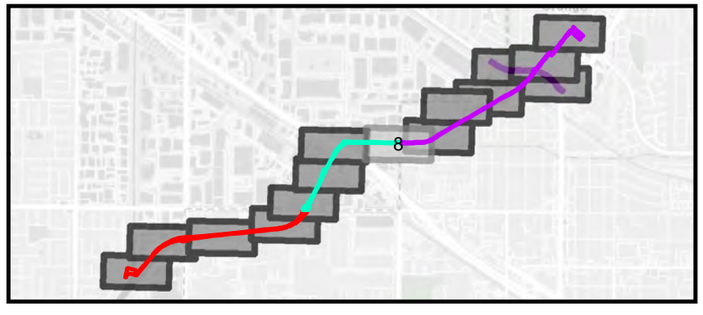
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

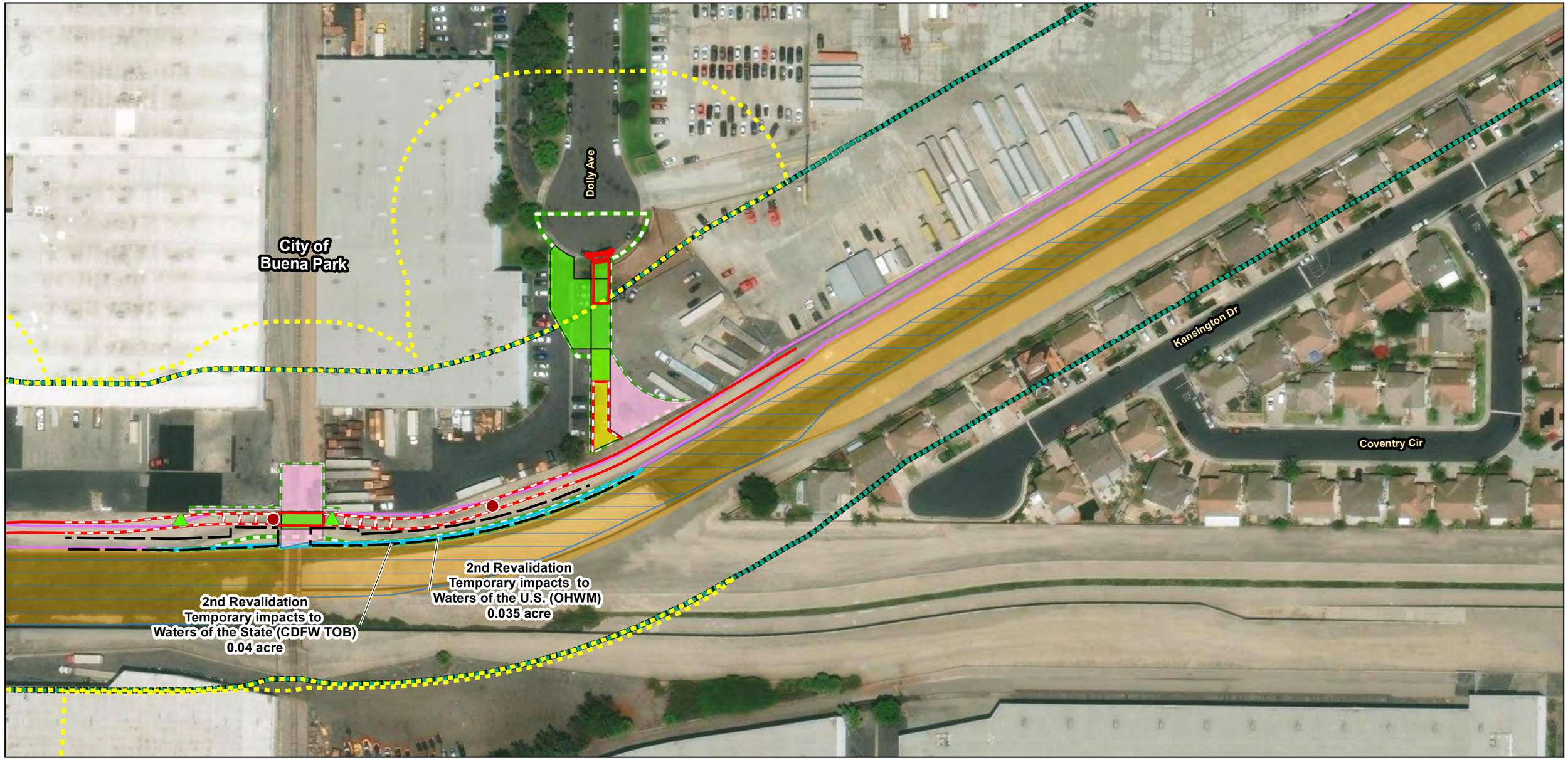
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- Segment P (Original plus 1st Revalidation)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding Only
- NEW Proposed Location of Geotechnical Boring Only
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 8 of 15

UltraSystems environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

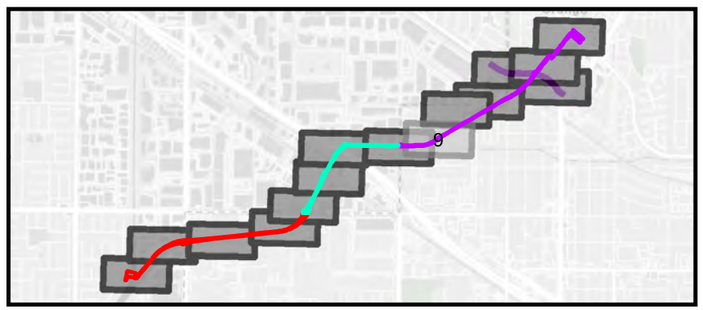
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

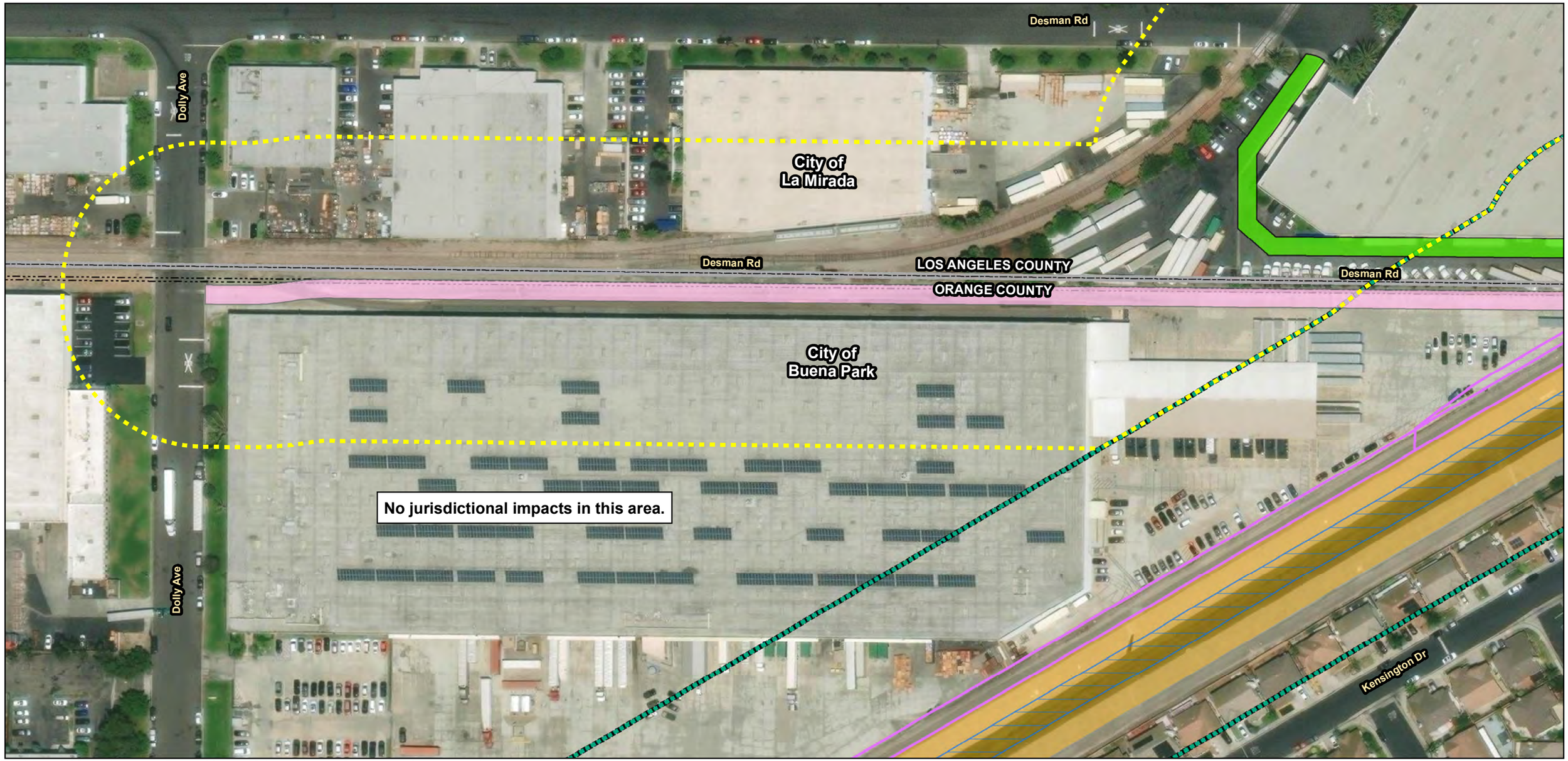
- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW ROW Aquisition
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding Only
- NEW Proposed Location of Geotechnical Boring Only
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to
Jurisdictional Waters
2nd Revalidation

Map 9 of 15

UltraSystems
environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

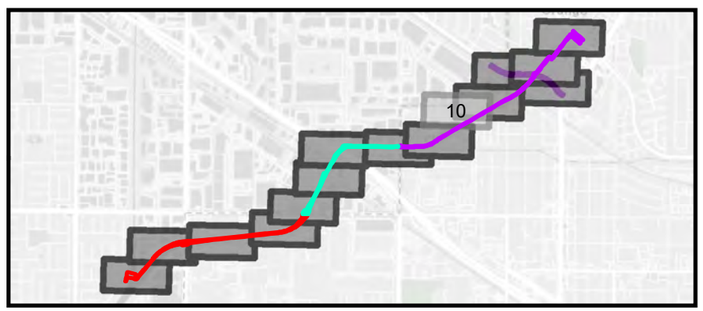
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 10 of 15

UltraSystems
environmental • management • planning



Path: \\Gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

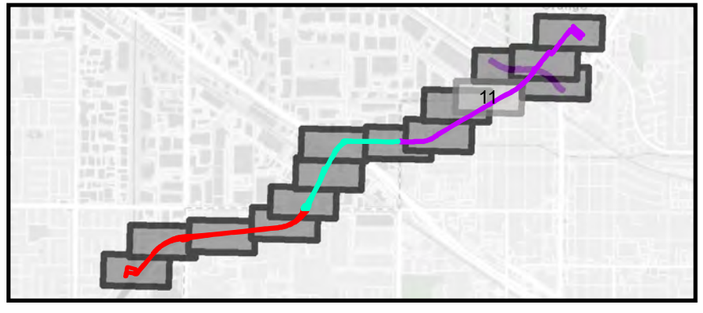
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

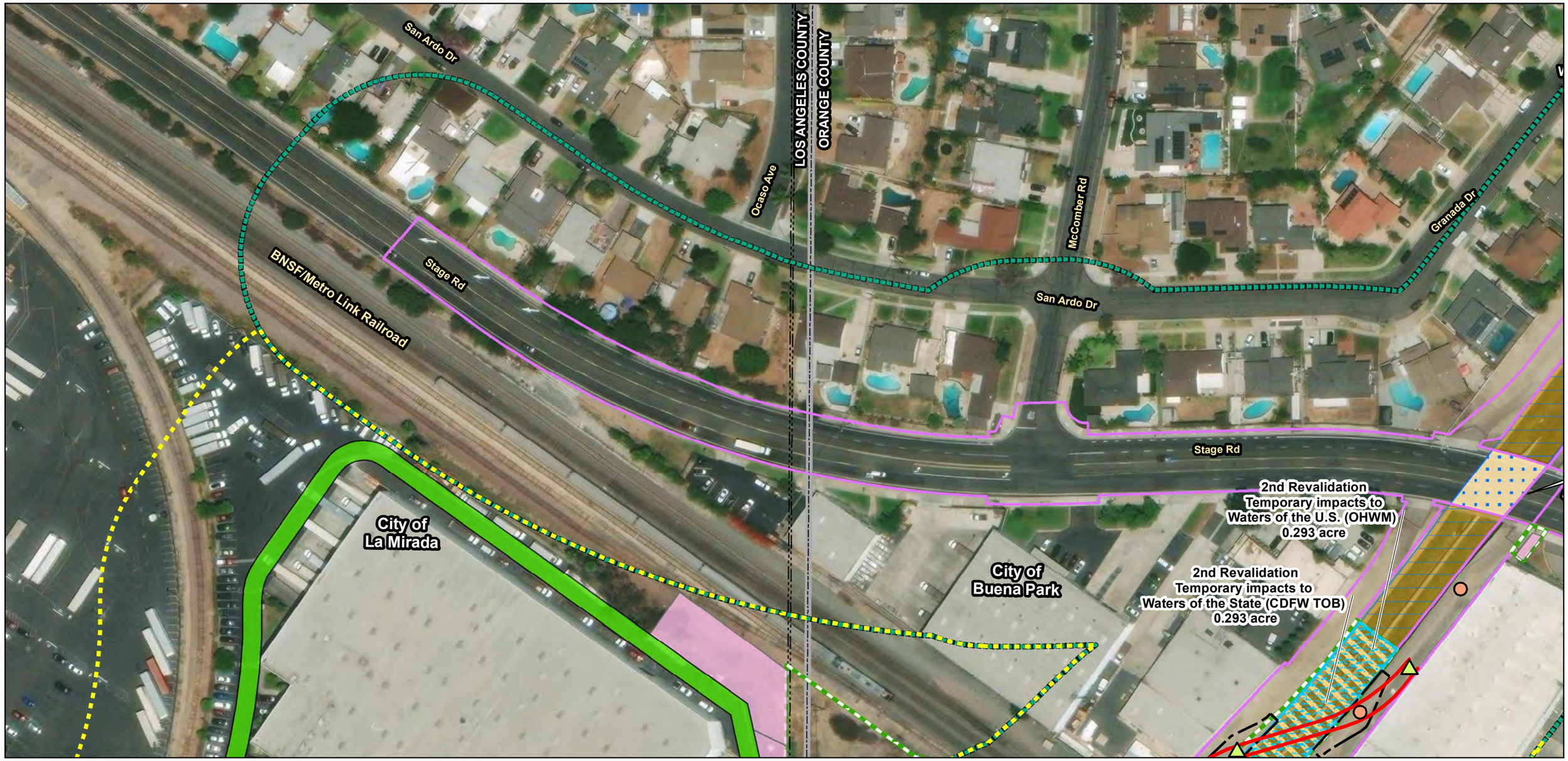
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- City Boundary
- County Boundary

OC Loop Segments O, P, and Q 2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 11 of 15

UltraSystems environmental • management • planning



Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

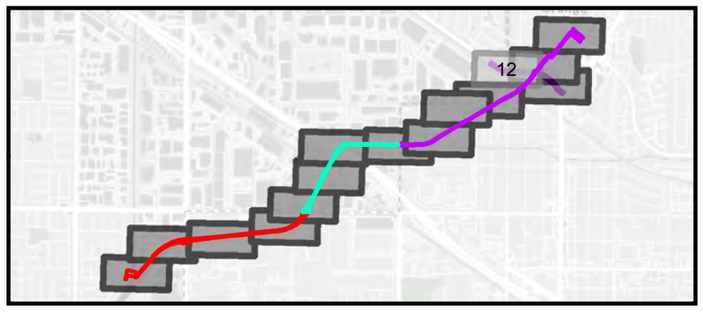
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- City Boundary
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to
Jurisdictional Waters
2nd Revalidation

Map 12 of 15

UltraSystems
environmental • management • planning

Jurisdictional area is underneath Stage Rd.
All work here is on Stage Rd.

Stage Rd

2nd Revalidation
Temporary impacts to
Waters of the U.S. (OHWM)
0.293 acre

2nd Revalidation
Temporary impacts to
Waters of the State (CDFW TOB)
0.293 acre

Stage Rd

City of
Buena Park

Dodds Ave

State Rte 39/Beach Blvd

BNSF/Metro Link Railroad

Coyote Creek Ct

City of

Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

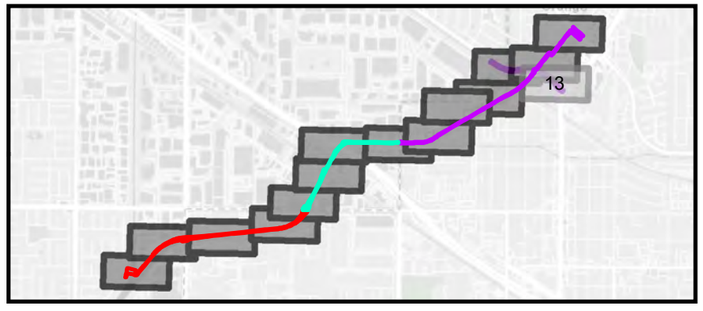
July 04, 2023

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 13 of 15

UltraSystems
environmental • management • planning

Original/Old alignmnet
Temporary Impacts to
Waters of the U.S. (OHWM)
0.014 acre
Original/Old alignment
Temporary Impacts to
Waters of the State (CDFW TOB)
0.014 acre

McComber Rd

Granada Dr

San Ardo Dr

Stage Rd

Jurisdictional area is underneath Stage Rd.
All work here is on Stage Rd.

Stage Rd

2nd Revalidation
Temporary impacts to
Waters of the U.S. (OHWM)
0.293 acre

City of
Buena Park

2nd Revalidation
Temporary impacts to
Waters of the State (CDFW TOB)
0.293 acre

Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

July 04, 2023

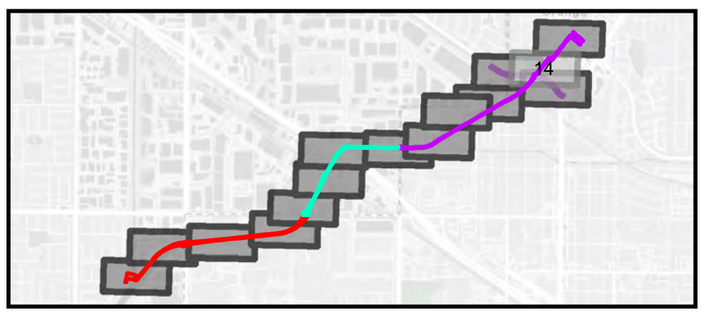
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Impacts to Waters of the U.S. (OHWM) (2nd Revalidation)
- NEW Impacts to Waters of the State (CDFW TOB) (2nd Revalidation)
- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Proposed Bikeway Alignment
- NEW Maintenance Road
- NEW Other Temp Work Areas
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- NEW Proposed Location of Cone Penetrometer Test (CPT) Sounding/Bridge Column
- NEW Proposed Location of Geotechnical Boring/Bridge Column
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to
Jurisdictional Waters
2nd Revalidation

UltraSystems
environmental • management • planning



Path: \\gissvr\GIS\Projects\7154_Mark_Thomas_OCLoop\MXDs\7154_OC_Loop_JD_Impacts_MapBook_2023_07_04.mxd

July 04, 2023

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; GHD, 2020; Mark Thomas 2023; UltraSystems Environmental, Inc. 2023.

N

Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

- NEW Additional 150ft Biological Study Area (BSA)
- 150ft Biological Study Area (BSA) (Original + 1st Revalidation)
- NEW Retaining Wall
- NEW Other Temp Work Areas
- NEW Permanent Easement
- NEW Temporary Construction Easement (TCE)
- Segment Q (Original and 1st Revalidation)
- Impacts to Waters of the State (CDFW TOB) (Original + 1st Revalidation)
- Waters of the State (CDFW TOB)
- Waters of the U.S. (OHWM)
- Impacts to Waters of the U.S. (OHWM) (Original + 1st Revalidation)
- County Boundary

OC Loop
Segments O, P, and Q
2nd Revalidation

Impacts to Jurisdictional Waters 2nd Revalidation

Map 15 of 15

UltraSystems
environmental • management • planning

Attachment 9

2ND SUPPLEMENTAL ISA MEMO

CITADEL EHS
assess resolve strengthen

September 13, 2023

Betsy A. Lindsay
President/CEO
ULTRASYSTEMS ENVIRONMENTAL
16431 Scientific Way
Irvine, California 92618

Fed-Aid Project No.: ATPL-5955 (112)

Re: CITADEL Project No. 1358.1093.0
Initial Site Assessment – 2nd Supplemental Technical Memo
OC Loop Segments O, P, and Q Project
Los Angeles and Orange Counties, California

Dear Ms. Lindsay:

Citadel EHS (Citadel) completed the Initial Site Assessment (ISA) for the OC Loop Segments O, P, and Q Project (Project) in March 2020 (revised in September 2020); an Addendum in June 2020; and a Supplemental Technical Memo in August 2021. Due to public comments and discussions with the railroads and the US Army Corps of Engineers (USACE), proposed design changes to the Project include the following:

- Segment O
  - Location and height adjustment of Cerritos Bridge at the Coyote Creek North Fork Flood Control Channel
  - Installation of a block wall (nine feet in height) adjacent to an existing back wall of residences along the Coyote Creek North Fork Flood Control Channel
- Segment P
  - Realignment of switchback on Caltrans property just north of the Union Pacific Railroad (UPRR)
  - Likely billboard relocation at South Firestone Boulevard and consequent permanent license or permanent easement relocation
  - Realignment of Trojan Way driveway
- Segment Q
  - Reorientation of the southern approach to the bridge over the UPRR in the City of La Mirada from its original course parallel to the bikeway to a new course perpendicular to the latter, extending further into an adjacent vacant property under Caltrans ownership
  - Slight reorientation of the BNSF Railway/Metrolink/Coyote Creek Channel overcrossing
  - Improvements to the La Mirada Boulevard crossing median
  - Relocation of the La Mirada Boulevard monument
  - Relocation of the La Mirada Boulevard Southern California Edison (SCE) sidewalk cabinet

Based on these design changes, the following Temporary Construction Easement (TCE), Permanent Aerial Easement (PAE), Permanent Maintenance Easement (PME), Permanent Subsurface Easement (PSUBE), and Permanent Sidewalk Easement (PSE) are proposed:

EASEMENT/WORK AREAS	DESCRIPTION
SEGMENT O	
Cerritos Bridge TCE	A surface parking lot and driveway area (33,936 square feet [SF]) surrounding a commercial/industrial structure located at 17641 Fabrica Way (Assessor Parcel Number [APN] 7022-023-022)
Artesia Boulevard Undercrossing TCE (south side)	A paved area (1,184 SF) of the property located at 6400 Artesia Boulevard (APN 276-031-05)
Additional temporary work areas	▪ Channel junction corner work area ▪ Valley View Boulevard Crossing (north side) ▪ Los Angeles County Flood Control District (LACFCD) right of way (ROW) along the north side of Coyote Creek Channel ▪ Artesia Boulevard Crossing
SEGMENT P	
Artesia Boulevard Undercrossing TCE (north side)	A paved area (897 SF) of the property located at 14765 Industrial Way (APN 7003-011-36)
PAE above UPRR Industry Track	1,410 SF above the railway track associated with APN 7003-011-815
Caltrans Property TCE	A gravel area (9,946 SF) of the property located at 14670 Firestone Boulevard (APN 7003-009-909)
Caltrans Property PME	A gravel area (1,977 SF) of the property located at 14670 Firestone Boulevard (APN 7003-009-909)
PME north of Trojan Way	A landscaped area (1,056 SF) of the property located at 16654-16671 Knott Avenue (APNs 7001-014-808, -908, and -034; and APN 7001-015-017)
PSUBE of bikeway under Firestone Boulevard and Interstate 5 Freeway	9,585 SF under freeway and street
Additional temporary work areas	▪ Artesia Boulevard Undercrossing ▪ LACFCD ROW south side work area ▪ Firestone Boulevard Undercrossing ▪ Knott Avenue Crossing
SEGMENT Q	
BNSF Undercrossing TCEs	3,655 SF of the property associated with APN 066-010-30; a paved area (48 SF) of the property located at 5655 Dolly Avenue (APN 066-010-53); and a paved area (286 SF) of the property located at 5640 Knott Avenue (APN 066-010-47)
BNSF Industry Track PSUBE	788 SF under the railway track associated with APN 066-010-30
TCE Options near Dolly Avenue	Paved areas (3,094 SF and 30,285 SF) of the property located at 5650 Dolly Avenue (APN 066-010-48)
PME Options near Dolly Avenue	Paved areas (2,533 SF and 1,448 SF) of the property located at 5650 Dolly Avenue (APN 066-010-48); and paved area (4,736 SF) of the property located at 5655 Dolly Avenue (APN 066-010-53)
TCE Option near Desman Road	Paved areas (9,387 SF, 558 SF, and 1,675 SF) of the property located at 15300 Desman Road (APN 7001-020-039)
PME Options near Desman Road	A surface parking lot and driveway area (46,671 SF) surrounding a commercial/industrial structure located at 15300 Desman Road (APN 7001-020-039)

EASEMENT/WORK AREAS	DESCRIPTION
PAE above BNSF Corridor	88 SF above the railway track associated with APN 066-581-03 and 1,461 SF above the railway track associated above the railroad lot 144/34-35
Chevron Property TCE	1,383 SF of the property associated with APN 066-581-03
TCE near Stage Road	A landscaped area (308 SF) of the property located at 7650 Stage Road (APN 066-582-03)
Amberwood Apartments TCE Expansion	Landscaped and paved areas (7,933 SF) of the property located at 7651 Stage Road (APN 066-584-09)
La Mirada Boulevard Sidewalk TCE	Landscaped and paved areas (2,970 SF) of the property located at 5251 Beach Boulevard (APN 066-584-05)
La Mirada Boulevard PSE	A landscaped area (1,397 SF) of the property located at 5251 Beach Boulevard (APN 066-584-05)
Additional temporary works areas	▪ Knott Avenue Crossing ▪ LACFCD right of way triangular segment ▪ LACFCD channel bottom cross channel bridge section ▪ La Mirada Boulevard Crossing

Current Conditions

Citadel representative Ms. Annie Liu conducted the Site reconnaissance on September 6, 2023, and observed the following locations:

- Segment O
  - The TCEs and additional work areas were generally within the 100-foot radius of the Project in the 2020 ISA, with the exception of the Cerritos Bridge TCE.
  - Access was not provided for certain areas within the Cerritos Bridge TCE; however, based on the location, the surface parking lot and driveway area were observed during the ISA and were not identified as environmental concerns. No stationary equipment was observed within 100 feet of the TCE.

- Segment P
  - The TCEs, PAE, PMEs, PSUBE, and additional work areas were generally within the 100-foot radius of the Project in the 2020 ISA, with the exception of the Caltrans Property.
  - Citadel was able to access the gravel paths/driveways of the Caltrans Property. No stationary equipment was observed within 100 feet of the TCE and PME.

- Segment Q
  - The PCEs, PSUBE, PMEs, PAE, and additional work areas were generally within the 100-foot radius of the Project in the 2020 ISA, with the exception of the areas near Dolly Avenue and Desman Road.
  - Citadel was able to access the roads and driveways of the areas near Dolly Avenue and Desman Road. No stationary equipment was observed within TCE and PME with the exception of an emergency generator located at 5650 Dolly Avenue.

History

The various identified easements are generally within the 100-foot radius of the Project, which were discussed in the 2020 ISA, with the exception of the Cerritos Bridge TCE, Caltrans Property, and the areas near Dolly Avenue and Desman Road.

- The Cerritos Bridge TCE is associated with the property located at 17641 Fabrica Way (Segment O), which was undeveloped as early as 1896 until the development of the current commercial/industrial structure in 1972.
- The Caltrans Property TCE and PME are associated with the property located at 14670 Firestone Boulevard (Segment P), which was undeveloped as early as 1896 until the development of a commercial/industrial business park by 1982. The business park was demolished in 2018. At the time of the ISA, former building foundations and surface parking lot was observed. This property adjoins the Interstate 5 Freeway to the north, which represents an environmental concern due to possible shallow soil contamination of aerially deposited lead (ADL) from vehicle exhaust.
- The Dolly Avenue TCE and PME Options (Segment Q) are associated with the properties located at 5650 and 5655 Dolly Avenue, which were undeveloped as early as 1896 until the development of the current industrial structures by 1982.
- The Desman Road TCE and PME Options (Segment Q) are associated with the property located at 15300 Desmand Road, which was undeveloped as early as 1896 until the development of the current commercial/industrial structure in 1999. The Desman Road TCE and Chevron Property TCE adjoin railway tracks to the north, which represents an environmental concern due to potential use of chemicals and herbicides commonly used to treat railroad ties.

Environmental Databases

Citadel reviewed the previous regulatory agency database records for the additional easements that were not discussed in the 2020 ISA, 2020 Addendum, or 2021 Supplemental Technical Memo.

- The property located at 17641 Fabrica Way (Segment O) was identified on numerous environmental databases as discussed in the 2020 ISA. A 2,000-gallon waste mop oil underground storage tank (UST) and a 10,000-gallon gasoline UST were removed in 1988; and a 10,000-gallon UST installed in 1988 was removed in 1998. Soil sampling during UST removal indicated a small release from the gasoline UST removed in 1998 and a larger release from the mop oil UST, which was located in the north portion of the facility. Liquid-phase hydrocarbon (LPH) recovery efforts had been ongoing since 1997, with two enhanced LPH removal events completed in 2017. The leaking underground storage tank (LUST) case was eligible for closure at the time of the ISA; the case was completed and closed by the Los Angeles Regional Water Quality Control Board (LARWQCB) as a low-risk closure on April 5, 2021. A Covenant and Environmental Restriction (Covenant) on Property was signed on June 29, 2018. While the case has been closed and is not expected to represent an environmental concern if the subsurface is undisturbed, the Covenant indicates that any excavation work at the property will have to be approved by the LARWQCB and conducted under an appropriate and fully implemented Health and Safety Plan (HASP).
- According to the 2020 ISA, the property located at 14670 Firestone Boulevard (Segment P) was likely associated with the address 14730 Firestone Boulevard, which was identified on several environmental databases. The property was occupied by print shops with spray booths in 2004 and 2006. A 2006 inspection indicated the use of solvent-based inks. The use of spray booth and solvent-based inks, represents an environmental concern.

- According to the 2020 ISA, the property located at 5650 Dolly Avenue (Segment Q) was identified on the several environmental databases. A leak of diesel and gasoline impacting soil was reported in 1989. The case was completed and closed by the Orange County Health Care Agency (OCHCA) in May 1990. The former USTs did not appear to be located within the TCE and PME areas near Dolly Avenue and is not expected to represent an environmental concern.
- The property located at 15300 Desman Road (Segment Q) was not identified on the reviewed environmental databases.

Based on Citadel's understanding of the Project and the proposed changes, additional environmental concerns that were not identified in the 2020 ISA, 2020 Addendum, and 2021 Supplemental Technical Memo include the following:

- The Cerritos Bridge TCE (Segment O) consists of the surface parking lot and driveway area surrounding the commercial/industrial structure located at 17641 Fabrica Way. A LUST case was completed and closed in April 2021; however, a Covenant was recorded in 2018, indicating that any excavation work at the property will have to be approved by the LARWQCB and conducted under an appropriate and fully implemented HASP. The closed case with a Covenant represents a controlled recognized environmental concern (CREC).
- The Caltrans Property TCE and PME (Segment P) consist of vacant property previously associated with the address 14730 Firestone Boulevard and was occupied by print shops with spray booths in 2004 and 2006. The historic use of spray booth and solvent-based inks represents a recognized environmental concern (REC). In addition, the proximity to the Interstate 5 Freeway represents a REC.
- The Desman Road TCE and Chevron Property TCE consists of paved and unpaved land. The proximity to railway tracks represents a REC.

If surficial disturbance is proposed at these TCEs, Citadel recommends the preparation of a Soil Management Plan (SMP) and HASP for the Cerritos Bridge TCE; and the collection of soil and soil vapor samples for the Caltrans Property TCE and PME, Desman Road TCE, and Chevron Property TCE. Based on the findings of the soil sampling, Citadel may additionally recommend the preparation of a SMP and an ADL Plan, and the implementation of soil monitoring for volatile organic compounds (VOCs).

We declare that to the best of our professional knowledge and belief, we, the undersigned meet the definition of Environmental Professional as defined by the final All Appropriate Inquiry (AAI) Rule published in 40 CFR Part 312.10 (November 1, 2013) and SER, Chapter 10 - Hazardous Materials, Hazardous Waste, and Contamination qualification requirements in ASTM E1527-05. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting described in the ISA.

If after your review of this letter report, you have any questions or require additional information, please do not hesitate to telephone our office at (818) 246-2707.

Sincerely,
CITADEL EHS

Shirley Lee
Digitally signed by Shirley Lee
Date: 2023.09.13 16:11:20 -07'00'

Shirley Lee
Senior Staff Environmental Specialist

Mark Drollinger
Digitally signed by Mark Drollinger
Date: 2023.09.13 16:11:38 -07'00'

Mark Drollinger M. Eng., CSP, CHMM
Principal, Engineering and Environmental Sciences

Attachment

Attachment 10

2ND SUPPLEMENTAL VIA MEMO

M e m o r a n d u m

To: Brian Liu
Caltrans Environmental Planning

Date: July 10, 2023

From: Brad Fowler
Orange County Public Works
714-245-4503

File No.: (Orange County – Oliver Luu)
(District 12–ATPL-59559[112]))
OC Loop Segments O, P, and Q
Coyote Creek Bikeway Project

Subject: Scenic Resource Evaluation and Visual Impact Assessment (for New [2nd] CE Revalidation)

Background

Original CE

The original Scenic Resource Evaluation and Visual Impact Assessment (VIA) for the OC Loop Segments O, P, and Q Coyote Creek Bikeway Project was submitted by Orange County Public Works to Caltrans for review on November 24, 2020 for National Environmental Policy Act (NEPA) requirements. See **Attachment 1**. Caltrans District 12 determined on February 25, 2021 that the original project was "categorically excluded from the requirements to prepare an EA or EIS under NEPA…"

1st Revalidation

As a result of separate permit consultations with U.S. Army Corps of Engineers (USACE), Union Pacific Railroad (UPRR) and Burlington Northern Santa Fe (BNSF) Railroad, limited project changes were proposed after the original Initial Study/Mitigated Negative Declaration (IS/MND) was circulated for public review and after the Categorical Exclusion (CE) Determination Form was signed by Caltrans. County of Orange staff decided that additional analysis was warranted for four specific crossing locations, resulting in preparation of a Recirculated IS/MND, in accordance with State California Environmental Policy Act (CEQA) Guidelines § 15073.5 and preparation of a CE Revalidation in accordance with NEPA requirements. See **Attachment 2,** 1st Revalidation VIA approved on December 6, 2021.

New (2nd) Revalidation

Since the first revalidation in 2021, additional changes to portions of the alignment, additional easements, and geotechnical boring locations have been proposed. The proposed project changes are minor and do not warrant recirculation of the approved IS/MND. However, a 2nd CE Revalidation is being prepared in accordance with NEPA requirements.

VIA Questionnaire for NEW (2nd) Revalidation

Per accompanying VIA Questionnaire included as **Attachment 3** was prepared by UltraSystems Environmental, Inc. The score for the new proposed project changes is 12. The original project score was 13 (**Attachment 1**). The 1st Revalidation score was 14 (**Attachment 2**).

Due to public comments and discussions with the railroads and the U.S. Army Corps of Engineers (USACE), proposed project changes have occurred. In summary, the new proposed changes include design and alignment changes at various locations, identification of geotechnical borings/testing locations, new proposed temporary and permanent easements, and new temporary construction staging/work areas.

Attachment 4 shows visual renderings of the proposed design changes. Design changes include:

- Location and height of North Fork Bridge in the City of Cerritos;
- Addition of a block wall(s) nine (9) feet in height on Los Angeles County Flood Control District (LACFCD) property installed adjacent to existing property back wall(s).
- Reorienting the southern approach to the bridge over the UPRR in the City of La Mirada from its original course parallel to the bikeway to a new course perpendicular to the latter, extending further into an adjacent vacant property under Caltrans ownership;
- Realignment of switchback on Caltrans property north of the UPRR;
- Realignment of Trojan Way driveway;
- Slight realignment of bike path just east and west of the BNSF Railroad Lead Undercrossing; and
- Realignment of bike path and truss bridge across the BNSF/Metrolink/Coyote Creek crossing.

New additional easements include: Temporary Construction Easements (TCEs), Permanent Aerial Easement (PAE), Permanent Subsurface Easement (PSUBE), and Permanent Maintenance Easements (PMEs).

Borings/Corings locations identified. Earthwork and borings at LACFCD Parcel and four additional bridge/tunnel locations. Excavations up to 18.5 feet in depth were evaluated for the Paleo and archeological reports in the original documents but design soils sample borings and column corings are now necessary to be done to deeper depths for the bridge column locations. Excavation for small diameter (8-inch) soils borings are expected to reach as much as 120 feet in depth and actual bridge column corings may reach 100 feet in depth with diameters ranging from 24 inches to 84 inches which exceeds excavation depths noted in the original environmental documents.

Additional temporary work areas were identified, including minor public right of way expansions for associated work areas, shallow bioswales, traffic control and striping. This also includes three additional in-channel work areas, one of which will be used for a crane to erect the truss bridge over Coyote Creek just north of the BNSF/Metrolink.

No changes to the existing environment or land uses have occurred since the original proposed project or the 1st CE Revalidation.

Visual Impact Assessment for new Proposed Project Changes (2nd Revalidation)

Segment O:

Design Changes

- Cerritos Bridge: Height - 6 feet to 12 feet and deck height increased 18 inches. Cerritos Bridge Lateral Relocation 25 feet south,
- Block wall(s) nine (9) feet in height on LACFCD property installed adjacent to existing back wall(s). (Sheet #1)

Segment P:

Design Changes

- Realignment of switchback on Caltrans property just north of UPRR,
- Likely Billboard Relocation at S. Firestone Blvd and consequent permanent license or permanent easement relocation,
- Realignment of Trojan Way driveway

Segment Q:

Design and other physical Changes

- Reorienting the southern approach to the bridge over the UPRR in the City of La Mirada from its original course parallel to the bikeway to a new course perpendicular to the latter, extending further into an adjacent vacant property under Caltrans ownership,
- Realignment of bike path and truss bridge across the BNSF/Metrolink/Coyote Creek crossing,
- La Mirada Blvd. Crossing Median Improvements - New Fence and fill-in the median gap
- La Mirada Blvd. Monument 2' wide x 4' tall (south side) – relocate
- La Mirada Blvd. SCE sidewalk Cabinet (north and south side) – Relocate

The reorientation and slight realignment of the previously approved crossings and bridges are all within the previously approved areas analyzed and would not have a significant or substantial adverse impact. No additional lighting or substantial visual changes will occur. Reorienting of the southern approach to the bridge over the UPRR in the City of La Mirada (Segment Q) will lower the height of the bridge, reducing impacts to visual resources.

Mitigation Measure AES-1 was added to the Final Recirculated MND (p. 4.1-10). Implementation of proposed MM AES-1 is adequately analyzed the proposed change and no additional mitigation measures are required. Final Recirculated IS/MND Section 4.1 considered the potential impacts of the bridges and, in particular, Segment O (p. 4.1-2). Figure 4.4-8a (p. 4.4-44) depicts the project envelope along the west side of the channel. The lateral relocation is within the identified project footprint. The refinement is consistent with the project's overall goal and would not result in new impacts.

The additional of the new proposed 9-foot high block wall(s) installed on LACFCD property would be consistent with MM AES-1. Because the addition of block walls does not revise MM AES-1 or substantially revise the IS/MND, Guidelines Section 15073.5 is not triggered. Similarly, Guidelines Section 15074.1(a) is not triggered.

The proposed project would adhere to the respective cities' regulations and policies regarding lighting and glare. Project impacts would remain less than significant in this regard. The project changes would not result in substantial adverse impacts to the visual environment.

Conclusion

As discussed previously, the original proposed project was determined by Caltrans District 12 to be "categorically excluded from the requirements to prepare an EA or EIS under NEPA…" The proposed project changes discussed above are a result of permit consultations the County conducted with USACE, UPRR and BNSF Railroad regarding the project. These project changes are proposed to address safety and risk concerns.

In conclusion, review of the project site and project plans indicate that the proposed project changes would not result in substantial adverse impacts to the visual environment. The proposed project changes would not affect visual resources within the cities of Cerritos, Buena Park, and La Mirada, where the project is located. With implementation of **MM AES-1** (approved in the 1st CE Revalidation) the proposed project changes would not result in substantial adverse impacts regarding degradation of the existing visual character or quality of public views of the site and its surroundings. The proposed design and materials of the bikeway, overcrossings, and bridges would still be consistent with the urban visual character of the project area and would be in compliance with, the Cities' general plans and municipal codes that pertain to aesthetics. Only minimal lighting is was proposed and approved previously and would not conflict with the respective cities' regulations and policies regarding lighting and glare. Therefore, this review indicates that the project changes would not adversely affect any "Designated Scenic Resource" as defined by CEQA statutes or guidelines, or by Caltrans policy and no detailed Visual Impact Assessment technical study is required.

cc:projfile

ATTACHMENT 1

ORIGINAL

SCENIC RESOURCE EVALUATION AND VISUAL IMPACT ASSESSMENT (VIA)

M e m o r a n d u m

To: Brian Liu
Caltrans Environmental Planning

Date: November 24, 2020

From: Brad Fowler
Orange County Public Works
714-245-4503

File No.: (Orange County – Oliver Luu)
(District 12–ATPL-59559[112]))
OC Loop Segments O, P, and Q
Coyote Creek Bikeway Project

Subject: **Scenic Resource Evaluation and Visual Impact Assessment**

Per accompanying VIA Questionnaire prepared by Cindy Salazar, OC Public Works Environmental, the Project Score equals 13.

The proposed project, located along the northwest Orange County/southwest Los Angeles County border, has been reviewed for potential impacts to visual resources. OC Loop Segments O, P, and Q Coyote Creek Bikeway Project (proposed project) involves the construction of a 2.7-mile bikeway along the Coyote Creek flood control channel (herein referred to as the Coyote Creek Channel) in the City of Cerritos on the south, through the City of La Mirada, to the City of Buena Park to the north. The proposed bikeway is a component of a 66-mile regional bikeway corridor called the OC Loop. The project would include three permanent easements, one in Segment P on Trojan Way and two in Segment Q on La Mirada Boulevard. Descriptions by segment of the proposed project are summarized below.

Segment O: Segment O is the southernmost portion of the project area and is located within the cities of Cerritos and Buena Park. Segment O includes a 200-foot-long and 12-foot-wide pre-fabricated pedestrian bowstring truss bridge across Coyote Creek North Fork Flood Control Channel, approximately 1,570 linear feet of 12- to 16-foot-wide asphalt bikeway upstream of the pre-fabricated bridge to Valley View Avenue, an undercrossing of Valley View Avenue constructed into the side of the existing sloped bank of the concrete Coyote Creek Channel, and a bikeway ramp up to the south side of Artesia Boulevard following the existing maintenance access road. No new lighting is proposed in this segment.

Segment P: Segment P is located within the City of La Mirada in Los Angeles County and runs parallel to the north side of the Coyote Creek channel from the Artesia Boulevard undercrossing to Knott Avenue. It is approximately 3,000 feet long (equivalent to 0.57 mile) and crosses under the Interstate 5 (I-5) freeway, its frontage roads (South and North Firestone Boulevard), and the Union Pacific Railroad (UPRR) Industrial Lead. It includes 1,085 linear feet of new 14- to 16-foot-wide asphalt trail, undercrossing at Artesia Boulevard, and a 120-foot-long box jack construction of a reinforced concrete box culvert underground tunnel under the UPRR Industrial Lead (or an alternative 1,200-foot-long, 35-foot-high pedestrian/cyclist truss bridge over the UPRR tracks), an undercrossing at South Firestone Boulevard, and an undercrossing at 1-5 and North Firestone Boulevard. The only section of the proposed project that would contain lighting would be the approximately 200-foot-long bikeway under North and South Firestone Boulevard and the I-5 within the City of La Mirada, as well as lighting for the railroad underpasses. The

bikeway is in a tunnel; therefore, there would be lights attached to the underside of the structures (the box culvert under South Firestone and the bridges under I-5 and North Firestone). The specific type of light to be installed has not been determined at the time. this document was written. The proposed project would adhere to the respective cities regulations and policies regarding lighting and glare.

Segment Q: Segment Q begins in the City of Buena Park, extends northwest through the City of La Mirada and ends in the City of Buena Park. Segment Q includes a signalized at-grade crossing at Knott Avenue, an at-grade crossing of a railroad industrial lead upstream of Knott Avenue, a 144-foot-long, 12-foot-wide, and 10-foot-tall[1] precast reinforced concrete box culvert tunnel under an existing Burlington Northern and Santa Fe (BNSF) and Metrolink Los Angeles-San Diego-San Luis Obispo (LOSSAN) railway corridor, an open U-channel, an at-grade crossing of Stage Road along with restriping the existing roadway to allow for a 12-foot-wide, barrier-separated, bikeway on both sides of Stage Road between McComber Road and the Coyote Creek Channel. Segment Q also includes 12- to 16-foot-wide asphalt paving, a pre-fabricated truss bridge approximately 50 feet long, no more than about five to eight feet high, and 12 feet wide, a new 12-foot wide asphalt Class I trail on both sides of La Mirada Boulevard with improvements at La Mirada Boulevard and Malvern Avenue. The proposed project would install a fully signalized at-grade crossing at Knott Avenue and a fully signalized intersection would be installed at McComber Road approximately 500 feet west of the Coyote Creek Channel.

Existing Environment

The cities of Cerritos, Buena Park and La Mirada are highly urbanized. The dominant land use in the project vicinity is urban development (commercial and industrial) with some ornamental landscaping. Residential land use is only located near the west end and north end of the project site. Dirt/gravel, paved asphalt, and concrete are located within and around the project site. A bike path exists in a portion of the project site. The project site is in an urban area, which is characterized by low to medium nighttime ambient light levels. Street lights, traffic on local streets and exterior lighting in surrounding developments are the primary sources of light that contribute to the ambient light levels in the project area. The entirety of Coyote Creek (north fork and east fork) within the project area is channelized. The channel structure varies regularly between trapezoidal (slant-walled), wide channel bottom (slant-walled), and rectangular (vertical-walled) throughout the project area. The channels convey nuisance runoff and storm drain flow, which comprise the current (and historic) Coyote Creek Channel. The project site is not located in the vicinity of an officially designated or eligible state scenic highway, or any designated as part of the California Scenic Highway Program. The closest officially designated state scenic highway is a portion of State Route 91, located approximately 11.0 miles southeast of the project site. The project site is also not within the Coastal Zone, nor is it considered a sensitive visual resource corridor.

Roads crossing the Coyote Creek Channel in the project site, from south to north, include the bridges at Valley View Avenue, Artesia Boulevard, South Firestone Boulevard, I-5/Santa Ana Freeway, North Firestone Boulevard, Trojan Way, Knott Avenue, Stage Road and La Mirada Boulevard. Railroad crossings long the project site include the UPRR in Segment P, a BNSF industrial spur and BNSF/Metrolink LOSSAN Rail Corridor in Segment Q.

[1] Inside dimensions.

Segment O: Segment O is located within the cities of Cerritos and Buena Park. In general, the land uses surrounding Segment O are comprised of light industrial with large office manufacturing buildings located along the north side of the Coyote Creek Channel. These businesses are separated from the Coyote Creek Channel by a chain-link fence. A stub of an apparently abandoned railroad serving goods movement ends along the frontage of two manufacturing buildings west of the intersection with Artesia Boulevard. There are no coastal zones or sensitive visual resource corridors in or near Segment O. There are no natural resource areas such as forests, wildlife habitat or agricultural land in or near Segment O.

Segment P: This segment is located entirely within the City of La Mirada. The city is built out and therefore contains no natural resource areas such as forests, wildlife habitat or agricultural land. The project area is characterized as urban development and there are no significant scenic views from public thoroughfares and open spaces in the vicinity of the project. Views from Segment P within the City of La Mirada are limited to industrial and commercial buildings. There are also no coastal zones or sensitive visual resource corridors in or near Segment P.

Segment Q: Segment Q is located within the cities of La Mirada and Buena Park. The City of La Mirada has no scenic vistas and the project area is characterized as urban development. Views from Segment Q within the City of La Mirada are limited to industrial and commercial buildings, as well as two-story single-family residences. The City of Buena Park has no scenic vistas and the project area is characterized as urban development. The views surrounding Segment Q are predominantly of industrial and commercial buildings. However, single-family residences are also located adjacent to this portion of the proposed bikeway. The portion of Coyote Creek Channel between Stage Road and La Mirada Boulevard passes between two residential developments and a school. Ornamental trees are located outside of channel right-of-way to separate homes from the channel. On the east side of the Coyote Creek Channel, an apartment development is located near Stage Road and a commercial strip mall is located on the eastern side of the channel near La Mirada Boulevard. Adjacent land uses are separated by a low wall. There are no coastal zones or sensitive visual resource corridors in or near Segment Q. There are no natural resource areas such as forests, wildlife habitat or agricultural land in or near Segment Q.

Visual Impact Assessment

Segment O: In this segment, a 200-foot-long and 12-foot-wide pre-fabricated pedestrian bowstring truss bridge would be installed across Coyote Creek Channel at Station 10+00, where the Coyote Creek Channel divides into the north and east forks. The bridge would not impact the community forest[2], and would not block scenic views of distant mountains or foothills. No new lighting features are proposed in this segment. Views surrounding the bridge are of industrial and commercial buildings. Therefore, Segment O of the proposed bikeway through the City of Cerritos would have no impact on scenic vistas or visual resources.

Segment P: In this segment, a reinforced concrete box culvert underground tunnel is proposed under the UPRR Industrial Lead, which would be underground and would not impact existing visual resources. The UPRR has preliminarily indicated its policies may not be able to support an underpass. Therefore, a 1,200-foot-long, 35-foot-high pedestrian/cyclist truss bridge over the

[2] Since the city's incorporation in 1956, the Public Works Department has planted more than 30,000 trees along city sidewalks and medians, next to freeway ramps and throughout the city's many parks and recreation facilities. Cerritos employs a full-time staff of specialists who nurture the City's urban forest (City of Cerritos, 2020).

UPRR tracks has been included as an alternative to the underpass. However, the slope on the northeast end of the bridge would reach a minimum of 9.6% to allow for the South Firestone underpass entrance and would be extremely difficult for cyclists. If constructed, the bridge would be located within a heavily industrial area, which should pose less than significant visual impacts. Views surrounding Segment P of the proposed bikeway within the City of La Mirada are generally limited to adjacent industrial and commercial development. Night time illumination resulting from the proposed project would be limited to the proposed additional lighting described above. Additionally, existing lighting sources such as street lights and lights from existing traffic signals contribute to night time illumination in the project area. The proposed project would adhere to the respective cities' regulations and policies regarding lighting and glare. Therefore, Segment P of the proposed bikeway through the City of La Mirada would have no impact on scenic vistas or visual resources.

Segment Q: To connect with the existing OC Loop Segment R on the other side of the Coyote Creek Channel, a pre-fabricated pedestrian steel cable arch bridge or bowstring arch bridge, would be installed across the Coyote Creek Channel. The bridge would be approximately 50 feet long, no more than about five to eight feet high and 12 feet wide. The proposed bridge would not have a significant impact because the City of Buena Park has no scenic vistas and the project area is characterized as urban development. The views surrounding Segment Q are predominantly of industrial and commercial buildings. Although single family residences are also located adjacent to this portion of the proposed bikeway, the project would have a less than significant impact visually because the walls along the adjacent property line that would shield views of the bridge. The existing channel and proposed bridge would also be a lower elevation than the surrounding residences. Furthermore, the existing views from the residences in this area are of the concrete channel, chain-link fence, dirt maintenance road, the Stage Road bridge to the south, and the La Mirada Boulevard bridge to the north therefore the addition of the small pedestrian/bike bridge would not adversely affect existing views. Night time illumination resulting from the proposed project would be limited to the proposed additional lighting described above. Additionally, existing lighting sources such as street lights and lights from existing traffic signals contribute to night time illumination in the project area. The proposed project would adhere to the respective cities' regulations and policies regarding lighting and glare. On La Mirada Boulevard, up to 22 ornamental trees would be removed (up to eight on the north side and up to 14 on the south side). There are two rows of trees on the south side of La Mirada Boulevard and only one of the rows would be impacted; the other row of trees would not be removed. The removed trees may be replaced if desired by landowners or if required by the city of La Mirada. Therefore, the removal of these 22 trees would have a less than significant impact because trees would remain in this location. Due to the lack of scenic vistas along this portion of the bikeway through the City of Buena Park, the project would have no impact on scenic vistas or visual resources.

In conclusion, review of the project site and project plans indicate that the project would not result in substantial adverse impacts to the visual environment. The proposed project would not affect visual resources within the cities of Cerritos, Buena Park, and La Mirada, where the project is located. The proposed design and materials of the bikeway would be consistent with the urban visual character of the project area and would be in compliance with, the Cities' general plans and municipal codes that pertain to aesthetics. Only minimal lighting is proposed and would not conflict with the respective cities' regulations and policies regarding lighting and glare. Therefore, this review indicates that the project would not adversely affect any "Designated Scenic Resource" as defined by CEQA statutes or guidelines, or by Caltrans policy and no detailed Visual Impact Assessment technical study is required.

cc:projfile

VIA Questionnaire

********** -->

Questionnaire to Determine Visual Impact Assessment (VIA) Level

Use the following questions and subsequent score as a guide to help determine the appropriate level of VIA documentation. This questionnaire assists the VIA preparer (i.e. Landscape Architect) in estimating the probable visual impacts of a proposed project on the environment and in understanding the degree and breadth of the possible visual issues. The goal is to develop a suitable document strategy that is thorough, concise and defensible.

Enter the project name and consider each of the ten questions below. Select the response that most closely applies to the proposed project and corresponding number on the right side of the table. Points are automatically computed at the bottom of the table and the total score should be matched to one of the five groups of scores at the end of the questionnaire that include recommended levels of VIA study and associated annotated outlines (i.e., minor, moderate, advanced/complex).

This scoring system should be used as a preliminary guide and should not be used as a substitute for objective analysis on the part of the preparer. Although the total score may recommend a certain level of VIA document, circumstances associated with any one of the ten question-areas may indicate the need to elevate the VIA to a greater level of detail. For projects done by others on the State Highway System, the District Landscape Architect should be consulted when scoping the VIA level and provide concurrence on the level of analysis used.

The Standard Environmental Reference, Environmental Handbook, Volume I: Chapter 27-Visual & Aesthetics Review lists preparer qualifications for conducting the visual impact assessment process. Landscape Architects receive formal training in the area of visual resource management and can appropriately determine which VIA level is appropriate.

Preparer Qualifications:

> "Scenic Resource Evaluations and VIAs are performed under the direction of licensed Landscape Architects. Landscape Architects receive formal training in the area of visual resource management with a curriculum that emphasizes environmental design, human factors, and context sensitive solutions. When recommending specific visual mitigation measures, Landscape Architects can appropriately weigh the benefits of these different measures and consider construction feasibility and maintainability."

Calculate VIA Level Score

PROJECT NAME:	COYOTE CREEK CHANNEL (OC LOOP SEGMENTS O, P, Q)
PROJECT IDENTIFICATION #:	Enter Project EA / Identification #
PREPARER NAME:	Cindy Salazar
FOR PROJECTS ON STATE HIGHWAY SYSTEM ONLY, NAME OF CALTRANS DISTRICT LANDSCAPE ARCHITECT (DLA) PROVIDING VIA QUESTIONNAIRE SCORE CONCURRENCE- IF DIFFERENT THAN ABOVE:	For Projects on State Highway System Only, Enter DLA Name
CHANGE TO VISUAL ENVIRONMENT	
1. Will the project result in a noticeable change in the physical characteristics of the existing environment? *Consider all project components and construction impacts - both permanent and temporary, including landform changes, structures, noise barriers, vegetation removal, railing, signage, and contractor activities.*	Low Level of Change (1 point)

VIA Questionnaire

2. Will the project complement or contrast with the visual character desired by the community? Evaluate the scale and extent of the project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community? Do you anticipate that the change will be viewed by the public as positive or negative? Research planning documents, or talk with local planners and community representatives to understand the type of visual environment local residents envision for their community.	High Compatibility (1 point)
3. What level of local concern is there for the types of project features (e.g., bridge structures, large excavations, sound barriers, or median planting removal) and construction impacts that are proposed? Certain project improvements can be of special interest to local citizens, causing a heightened level of public concern, and requiring a more focused visual analysis.	Low Concern (1 point)
4. Will the project require redesign or realignment to minimize adverse change or will mitigation, such as landscape or architectural treatment, likely be necessary? Consider the type of changes caused by the project, i.e., can undesirable views be screened or will desirable views be permanently obscured so a redesign should be considered?	Mitigation Likely (1 point)
5. Will this project, when seen collectively with other projects, result in an aggregate adverse change (cumulative impacts) in overall visual quality or character? Identify any projects (both Caltrans and local) in the area that have been constructed in recent years and those currently planned for future construction. The window of time and the extent of area applicable to possible cumulative impacts should be based on a	Cumulative Impacts Unlikely to Occur (1 point)

VIA Questionnaire

reasonable anticipation of the viewing public's perception.	
VIEWER SENSITIVITY	
1. What is the potential that the project proposal will be controversial within the community, or opposed by any organized group? This can be researched initially by talking with Caltrans and local agency management and staff familiar with the affected community's sentiments as evidenced by past projects and/or current information.	Low Potential (1 point)
2. How sensitive are potential viewer-groups likely to be regarding visible changes proposed by the project? Consider among other factors the number of viewers within the group, probable viewer expectations, activities, viewing duration, and orientation. The expected viewer sensitivity level may be scoped by applying professional judgment, and by soliciting information from other Caltrans staff, local agencies and community representatives familiar with the affected community's sentiments and demonstrated concerns.	Low Sensitivity (1 point)
3. To what degree does the project's aesthetic approach appear to be consistent with applicable laws, ordinances, regulations, policies or standards? Although the State is not always required to comply with local planning ordinances, these documents are critical in understanding the importance that communities place on aesthetic issues. The Caltrans Environmental Planning branch may have copies of the planning documents that pertain to the project. If not, this information can be obtained by contacting the local planning department. Also, many local and state planning documents can be found online at the California Land Use Planning Network.	High Compatibility (1 point)
	Yes (3 points)

VIA Questionnaire

4. Are permits going to be required by outside regulatory agencies (i.e., Federal, State, or local)? Permit requirements can have an unintended consequence on the visual environment. Anticipated permits, as well as specific permit requirements - which are defined by the permitted, may be determined by talking with the project Environmental Planner and Project Engineer. Note: coordinate with the Caltrans representative responsible for obtaining the permit prior to communicating directly with any permitting agency.	
5. Will the project sponsor or public benefit from a more detailed visual analysis in order to help reach consensus on a course of action to address potential visual impacts? Consider the proposed project features, possible visual impacts, and probable mitigation recommendations.	Maybe (2 points)

Calculate Total

It is recommended that you print a copy of these calculations for the project file.

PROJECT SCORE: 13

Select An Outline Based Upon Project Score

The total score will indicate the recommended VIA level for the project. In addition to considering circumstances relating to any one of the ten questions-areas that would justify elevating the VIA level, also consider any other project factors that would have an effect on level selection.

SCORE 6-9

No noticeable visual changes to the environment are proposed and no further analysis is required. Print out a copy of this completed questionnaire for your project file or Preliminary Environmental Study (PES).

SCORE 10-14

Negligible visual changes to the environment are proposed. A brief **Memorandum** (see sample) addressing visual issues providing a rationale why a technical study is not required.

SCORE 15-19

Noticeable visual changes to the environment are proposed. An abbreviated VIA is appropriate in this case. The assessment would briefly describe project features, impacts and any avoidance and minimization measures. Visual simulations would be optional. Go to the **Directions** for using and accessing the Minor VIA Annotated Outline.

SCORE 20-24

Noticeable visual changes to the environment are proposed. A fully developed VIA is appropriate. This technical study will likely receive public review. Go to the **Directions** for using and accessing the Moderate VIA Annotated Outline.

VIA Questionnaire

SCORE 25-30

Noticeable visual changes to the environment are proposed. A fully developed VIA is appropriate that includes photo simulations. It is appropriate to alert the Project Development Team to the potential for highly adverse impacts and to consider project alternatives to avoid those impacts. Go to the **Directions** for using and accessing the Advanced/Complex VIA Annotated Outline.

ATTACHMENT 2

UPDATED

SCENIC RESOURCE EVALUATION AND VISUAL IMPACT ASSESSMENT (VIA) QUESTIONNAIRE

FOR CE – 1ST REVALIDATION

Questionnaire to Determine Visual Impact Assessment (VIA) Level

Use the following questions and subsequent score as a guide to help determine the appropriate level of VIA documentation. This questionnaire assists the VIA preparer (i.e. Landscape Architect) in estimating the probable visual impacts of a proposed project on the environment and in understanding the degree and breadth of the possible visual issues. The goal is to develop a suitable document strategy that is thorough, concise and defensible.

Enter the project name and consider each of the ten questions below. Select the response that most closely applies to the proposed project and corresponding number on the right side of the table. Points are automatically computed at the bottom of the table and the total score should be matched to one of the five groups of scores at the end of the questionnaire that include recommended levels of VIA study and associated annotated outlines (i.e., minor, moderate, advanced/complex).

This scoring system should be used as a preliminary guide and should not be used as a substitute for objective analysis on the part of the preparer. Although the total score may recommend a certain level of VIA document, circumstances associated with any one of the ten question-areas may indicate the need to elevate the VIA to a greater level of detail. For projects done by others on the State Highway System, the District Landscape Architect should be consulted when scoping the VIA level and provide concurrence on the level of analysis used.

The Standard Environmental Reference, Environmental Handbook, Volume I: Chapter 27-Visual & Aesthetics Review lists preparer qualifications for conducting the visual impact assessment process. Landscape Architects receive formal training in the area of visual resource management and can appropriately determine which VIA level is appropriate.

Preparer Qualifications:

> "Scenic Resource Evaluations and VIA's are performed under the direction of licensed Landscape Architects. Landscape Architects receive formal training in the area of visual resource management with a curriculum that emphasizes environmental design, human factors, and context sensitive solutions. When recommending specific visual mitigation measures, Landscape Architects can appropriately weigh the benefits of these different measures and consider construction feasibility and maintainability."

Calculate VIA Level Score

Project Information

Project Name

OC Loop Segments O, P, and Q, Coyote Creek Bikeway Project (Addendum)

Project Identification #

Federal Project No. ATPL-59559[112], FTIP #19-00, DIST-CO-RTE: 12/Ora/Orange County

Preparer Name

Billye J. Breckenridge, UltraSystems Environmental, Inc.

Caltrans District Landscape Architect (DLA)

For projects on State Highway System Only, Name of Caltrans District Landscape Architect (DLA) providing VIA Questionnaire Score Concurrence - if different than above.

For Projects on State Highway System Only, Enter DLA Name

Change to Visual Environment

1. **Will the project result in a noticeable change in the physical characteristics of the existing environment?**

   Consider all project components and construction impacts - both permanent and temporary, including landform changes, structures, noise barriers, vegetation removal, railing, signage, and contractor activities.

   Moderate Level of Change (2 points)

2. **Will the project complement or contrast with the visual character desired by the community?**

   Evaluate the scale and extent of the project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community? Do you anticipate that the change will be viewed by the public as positive or negative? Research planning documents, or talk with local planners and community representatives to understand the type of visual environment local residents envision for their community.

   High Compatibility (1 point)

3. **What level of local concern is there for the types of project features (e.g., bridge structures, large excavations, sound barriers, or median planting removal) and construction impacts that are proposed?**

   Certain project improvements can be of special interest to local citizens, causing a heightened level of public concern, and requiring a more focused visual analysis.

   Low Concern (1 point)

4. **Will the project require redesign or realignment to minimize adverse change or will mitigation, such as landscape or architectural treatment, likely be necessary?**

   Consider the type of changes caused by the project, i.e., can undesirable views be screened or will desirable views be permanently obscured so a redesign should be considered?

   Mitigation Likely (1 point)

5. **Will this project, when seen collectively with other projects, result in an aggregate adverse change (cumulative impacts) in overall visual quality or character?**

   Identify any projects (both Caltrans and local) in the area that have been constructed in recent years and those currently planned for future construction. The window of time and the extent of area applicable to possible cumulative impacts should be based on a reasonable anticipation of the viewing public's perception.

   Cumulative Impacts Unlikely to Occur (1 point)

Viewer Sensitivity

1. **What is the potential that the project proposal will be controversial within the community, or opposed by any organized group?**

This can be researched initially by talking with Caltrans and local agency management and staff familiar with the affected community's sentiments as evidenced by past projects and/or current information.

Low Potential (1 point)

2. **How sensitive are potential viewer-groups likely to be regarding visible changes proposed by the project?**

Consider among other factors the number of viewers within the group, probable viewer expectations, activities, viewing duration, and orientation. The expected viewer sensitivity level may be scoped by applying professional judgment, and by soliciting information from other Caltrans staff, local agencies and community representatives familiar with the affected community's sentiments and demonstrated concerns.

Low Sensitivity (1 point)

3. **To what degree does the project's aesthetic approach appear to be consistent with applicable laws, ordinances, regulations, policies or standards?**

Although the State is not always required to comply with local planning ordinances, these documents are critical in understanding the importance that communities place on aesthetic issues. The Caltrans Environmental Planning branch may have copies of the planning documents that pertain to the project. If not, this information can be obtained by contacting the local planning department. Also, many local and state planning documents can be found online at the California Land Use Planning Network.

High Compatibility (1 point)

4. **Are permits going to be required by outside regulatory agencies (i.e., Federal, State, or local)?**

Permit requirements can have an unintended consequence on the visual environment. Anticipated permits, as well as specific permit requirements - which are defined by the permitted, may be determined by talking with the project Environmental Planner and Project Engineer. Note: coordinate with the Caltrans representative responsible for obtaining the permit prior to communicating directly with any permitting agency.

Yes (3 points)

5. **Will the project sponsor or public benefit from a more detailed visual analysis in order to help reach consensus on a course of action to address potential visual impacts?**

Consider the proposed project features, possible visual impacts, and probable mitigation recommendations.

Maybe (2 points)

Calculate Total

It is recommended that you print a copy of these calculations for the project file.

Project Score: 14

Select An Outline Based Upon Project Score

The total score will indicate the recommended VIA level for the project. In addition to considering circumstances relating to any one of the ten questions-areas that would justify elevating the VIA level, also consider any other project factors that would have an effect on level selection.

Score 6-9

No noticeable visual changes to the environment are proposed and no further analysis is required. Print out a copy of this completed questionnaire for your project file or Preliminary Environmental Study (PES).

Score 10-14

Negligible visual changes to the environment are proposed. A brief Memorandum(see sample)addressing visual issues providing a rationale why a technical study is not required.

Score 15-19

Noticeable visual changes to the environment are proposed. An abbreviated VIA is appropriate in this case. The assessment would briefly describe project features, impacts and any avoidance and minimization measures. Visual simulations would be optional. Go to the Directions for using and accessing the Minor VIA Annotated Outline.

Score 20-24

Noticeable visual changes to the environment are proposed. A fully developed VIA is appropriate. This technical study will likely receive public review.Go to the Directions for using and accessing the Moderate VIA Annotated Outline.

Score 25-30

Noticeable visual changes to the environment are proposed. A fully developed VIA is appropriate that includes photo simulations. It is appropriate to alert the Project Development Team to the potential for highly adverse impacts and to consider project alternatives to avoid those impacts.Go to the Directions for using and accessing the Advanced/Complex VIA Annotated Outline.

Statewide Campaigns

- ADA Access
- Adopt-A-Highway
- Amber Alert
- Be Work Zone Alert
- CAL FIRE
- California Climate Investments
- California Connected
- California Transportation Plan 2050
- Energy Upgrade
- Tenant and Landlord Resources
- Keep Your Home
- Move Over Law
- caloes.ca.gov: Power Outage and Fire Recovery Resources
- REAL ID
- Save Our Water
- Unclaimed Property

Back to Top Accessibility Privacy Policy Conditions of Use Register to Vote

Copyright © 2021 State of California

ATTACHMENT 3

UPDATED

SCENIC RESOURCE EVALUATION AND VISUAL IMPACT ASSESSMENT (VIA) QUESTIONNAIRE

FOR CE – 2ND REVALIDATION

Questionnaire to Determine Visual Impact Assessment (VIA) Level

Use the following questions and subsequent score as a guide to help determine the appropriate level of VIA documentation. This questionnaire assists the VIA preparer (i.e. Landscape Architect) in estimating the probable visual impacts of a proposed project on the environment and in understanding the degree and breadth of the possible visual issues. The goal is to develop a suitable document strategy that is thorough, concise and defensible.

Enter the project name and consider each of the ten questions below. Select the response that most closely applies to the proposed project and corresponding number on the right side of the table. Points are automatically computed at the bottom of the table and the total score should be matched to one of the five groups of scores at the end of the questionnaire that include recommended levels of VIA study and associated annotated outlines (i.e., minor, moderate, advanced/complex).

This scoring system should be used as a preliminary guide and should not be used as a substitute for objective analysis on the part of the preparer. Although the total score may recommend a certain level of VIA document, circumstances associated with any one of the ten question-areas may indicate the need to elevate the VIA to a greater level of detail. For projects done by others on the State Highway System, the District Landscape Architect should be consulted when scoping the VIA level and provide concurrence on the level of analysis used.

The Standard Environmental Reference, Environmental Handbook, Volume I: Chapter 27-Visual & Aesthetics Review lists preparer qualifications for conducting the visual impact assessment process. Landscape Architects receive formal training in the area of visual resource management and can appropriately determine which VIA level is appropriate.

Preparer Qualifications:

> "Scenic Resource Evaluations and VIA's are performed under the direction of licensed Landscape Architects. Landscape Architects receive formal training in the area of visual resource management with a curriculum that emphasizes environmental design, human factors, and context sensitive solutions. When recommending specific visual mitigation measures, Landscape Architects can appropriately weigh the benefits of these different measures and consider construction feasibility and maintainability."

Calculate VIA Level Score

Project Information

Project Name

OC Loop Segments O, P, and Q, Coyote Creek Bikeway Project (2nd Revalidation)

Project Identification #

Federal Project No. ATPL-59559[112], FTIP #19-00, DIST-CO-RTE: 12/Ora/Orange County

Preparer Name

Billye J. Breckenridge, UltraSystems Environmental, Inc.

Caltrans District Landscape Architect (DLA)

For projects on State Highway System Only, Name of Caltrans District Landscape Architect (DLA) providing VIA Questionnaire Score Concurrence - if different than above.

Not applicable

Change to Visual Environment

1. **Will the project result in a noticeable change in the physical characteristics of the existing environment?**

Consider all project components and construction impacts - both permanent and temporary, including landform changes, structures, noise barriers, vegetation removal, railing, signage, and contractor activities.

Moderate Level of Change (2 points)

2. **Will the project complement or contrast with the visual character desired by the community?**

Evaluate the scale and extent of the project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community? Do you anticipate that the change will be viewed by the public as positive or negative? Research planning documents, or talk with local planners and community representatives to understand the type of visual environment local residents envision for their community.

High Compatibility (1 point)

3. **What level of local concern is there for the types of project features (e.g., bridge structures, large excavations, sound barriers, or median planting removal) and construction impacts that are proposed?**

Certain project improvements can be of special interest to local citizens, causing a heightened level of public concern, and requiring a more focused visual analysis.

Low Concern (1 point)

4. **Will the project require redesign or realignment to minimize adverse change or will mitigation, such as landscape or architectural treatment, likely be necessary?**

Consider the type of changes caused by the project, i.e., can undesirable views be screened or will desirable views be permanently obscured so a redesign should be considered?

No Mitigation Likely (0 points)

5. **Will this project, when seen collectively with other projects, result in an aggregate adverse change (cumulative impacts) in overall visual quality or character?**

Identify any projects (both Caltrans and local) in the area that have been constructed in recent years and those currently planned for future construction. The window of time and the extent of area applicable to possible cumulative impacts should be based on a reasonable anticipation of the viewing public's perception.

Cumulative Impacts Unlikely to Occur (1 point)

Viewer Sensitivity

1. **What is the potential that the project proposal will be controversial within the community, or opposed by any organized group?**

This can be researched initially by talking with Caltrans and local agency management and staff familiar with the affected community's sentiments as evidenced by past projects and/or current information.

Low Potential (1 point)

2. **How sensitive are potential viewer-groups likely to be regarding visible changes proposed by the project?**

Consider among other factors the number of viewers within the group, probable viewer expectations, activities, viewing duration, and orientation. The expected viewer sensitivity level may be scoped by applying professional judgment, and by soliciting information from other Caltrans staff, local agencies and community representatives familiar with the affected community's sentiments and demonstrated concerns.

Low Sensitivity (1 point)

3. **To what degree does the project's aesthetic approach appear to be consistent with applicable laws, ordinances, regulations, policies or standards?**

Although the State is not always required to comply with local planning ordinances, these documents are critical in understanding the importance that communities place on aesthetic issues. The Caltrans Environmental Planning branch may have copies of the planning documents that pertain to the project. If not, this information can be obtained by contacting the local planning department. Also, many local and state planning documents can be found online at the California Land Use Planning Network.

High Compatibility (1 point)

4. **Are permits going to be required by outside regulatory agencies (i.e., Federal, State, or local)?**

Permit requirements can have an unintended consequence on the visual environment. Anticipated permits, as well as specific permit requirements - which are defined by the permitted, may be determined by talking with the project Environmental Planner and Project Engineer. Note: coordinate with the Caltrans representative responsible for obtaining the permit prior to communicating directly with any permitting agency.

Yes (3 points)

5. **Will the project sponsor or public benefit from a more detailed visual analysis in order to help reach consensus on a course of action to address potential visual impacts?**

Consider the proposed project features, possible visual impacts, and probable mitigation recommendations.

No (1 point)

Calculate Total

It is recommended that you print a copy of these calculations for the project file.

Project Score: 12

Select An Outline Based Upon Project Score

The total score will indicate the recommended VIA level for the project. In addition to considering circumstances relating to any one of the ten questions-areas that would justify elevating the VIA level, also consider any other project factors that would have an effect on level selection.

Score 6-9

No noticeable visual changes to the environment are proposed and no further analysis is required. Print out a copy of this completed questionnaire for your project file or Preliminary Environmental Study (PES).

Score 10-14

Negligible visual changes to the environment are proposed. A brief Memorandum(see sample)addressing visual issues providing a rationale why a technical study is not required.

Score 15-19

Noticeable visual changes to the environment are proposed. An abbreviated VIA is appropriate in this case. The assessment would briefly describe project features, impacts and any avoidance and minimization measures. Visual simulations would be optional. Go to the Directions for using and accessing the Minor VIA Annotated Outline.

Score 20-24

Noticeable visual changes to the environment are proposed. A fully developed VIA is appropriate. This technical study will likely receive public review.Go to the Directions for using and accessing the Moderate VIA Annotated Outline.

Score 25-30

Noticeable visual changes to the environment are proposed. A fully developed VIA is appropriate that includes photo simulations. It is appropriate to alert the Project Development Team to the potential for highly adverse impacts and to consider project alternatives to avoid those impacts.Go to the Directions for using and accessing the Advanced/Complex VIA Annotated Outline.

Statewide Campaigns

- ADA Access
- Adopt-A-Highway
- Amber Alert
- Be Work Zone Alert
- CAL FIRE
- California Climate Investments
- California Connected
- California Transportation Plan 2050
- Clean California
- Energy Upgrade
- Go Safely California
- Keep Your Home
- Move Over Law
- CalOES: Power Outage and Fire Recovery Resources
- REAL ID
- Save Our Water
- Stormwater Education Campaign
- Tenant and Landlord Resources
- Unclaimed Property

Back to Top Accessibility Privacy Policy Conditions of Use Register to Vote

Copyright © 2023 State of California

ATTACHMENT 4

VISUAL RENDERINGS

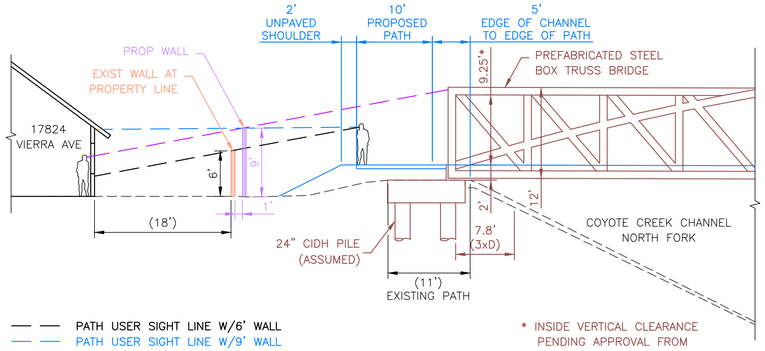
FOR CE – 2ND REVALIDATION

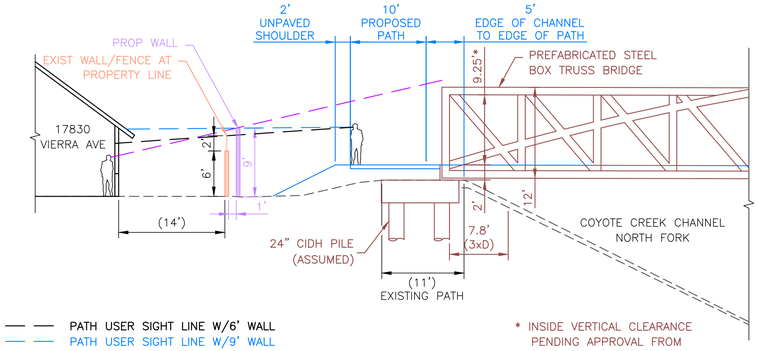
Previous Alternative – Coyote Creek North Fork Overcrossing Bridge

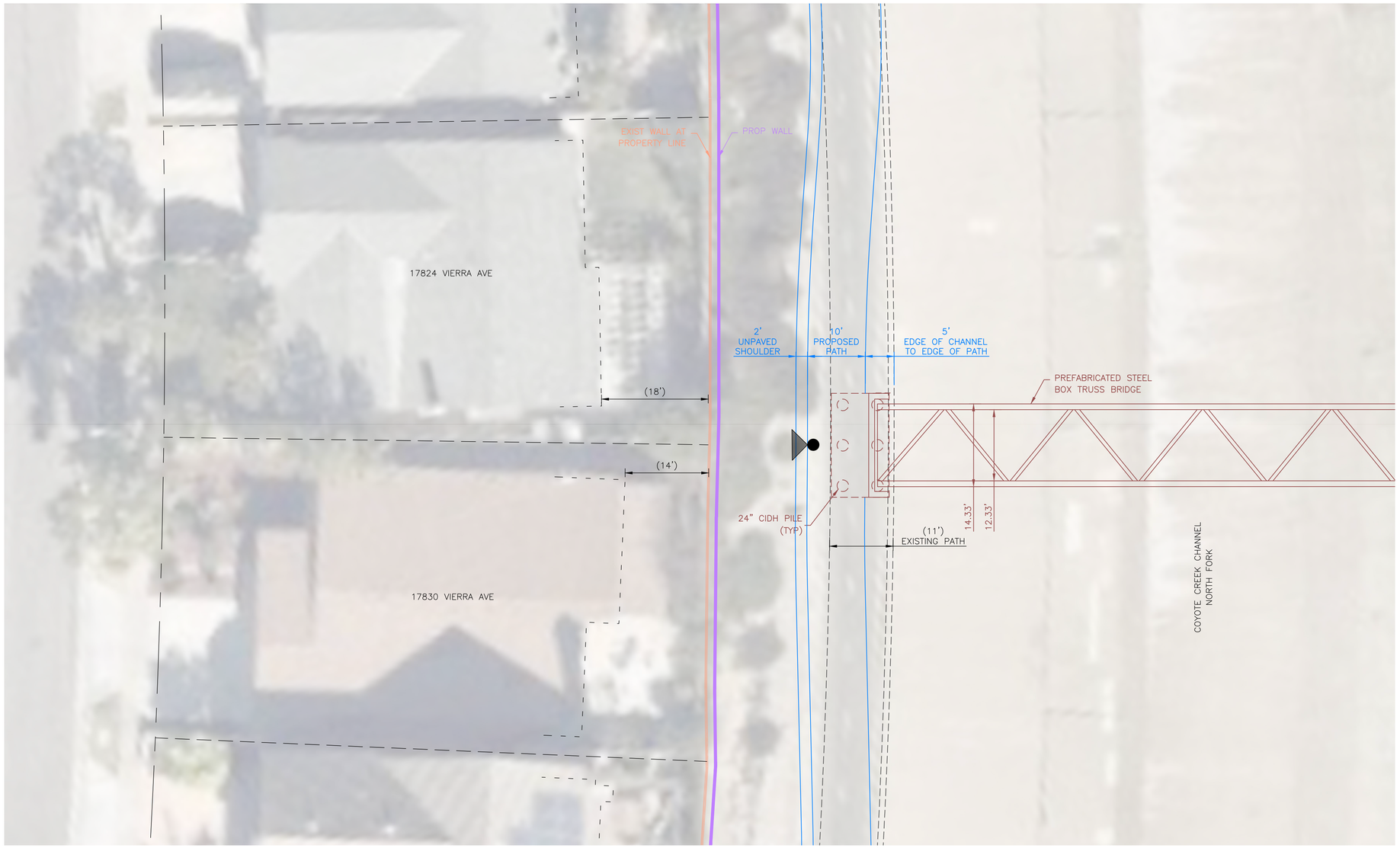


Revised Alternative – Coyote Creek North Fork Overcrossing Bridge









SCALE: 1"=10'

MARK THOMAS

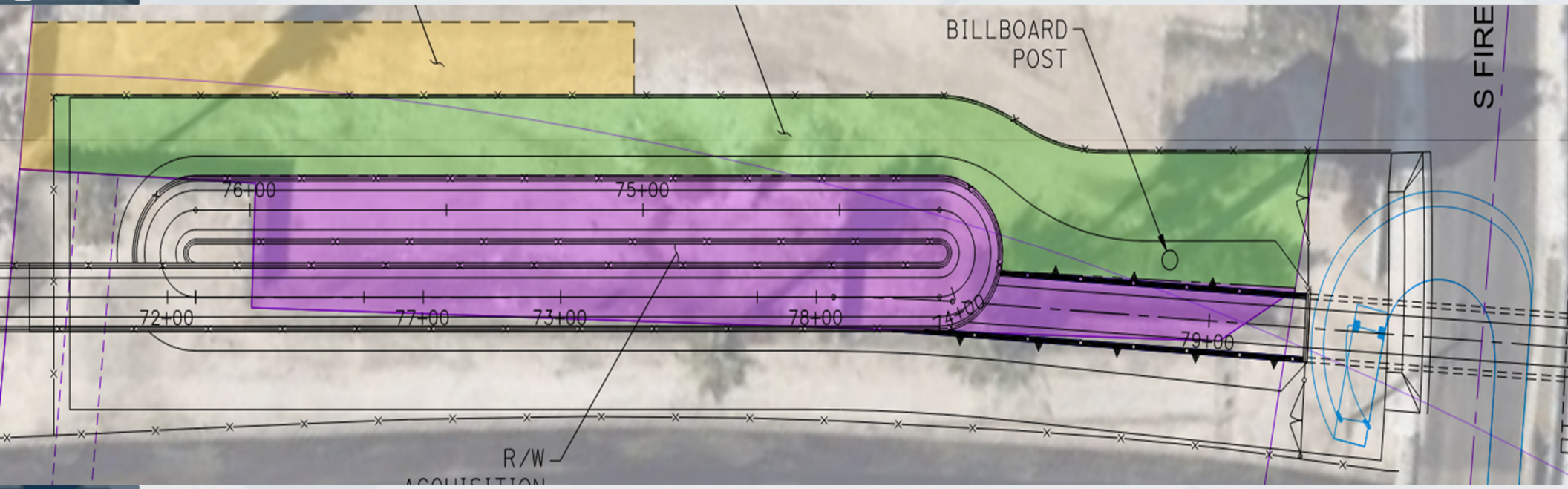
OCPW OC LOOP SEGMENT OPQ

COYOTE CREEK BIKEWAY - BRIDGE OVER NORTH FORK

Previous Alternative – UPRR Crossing and Switchback



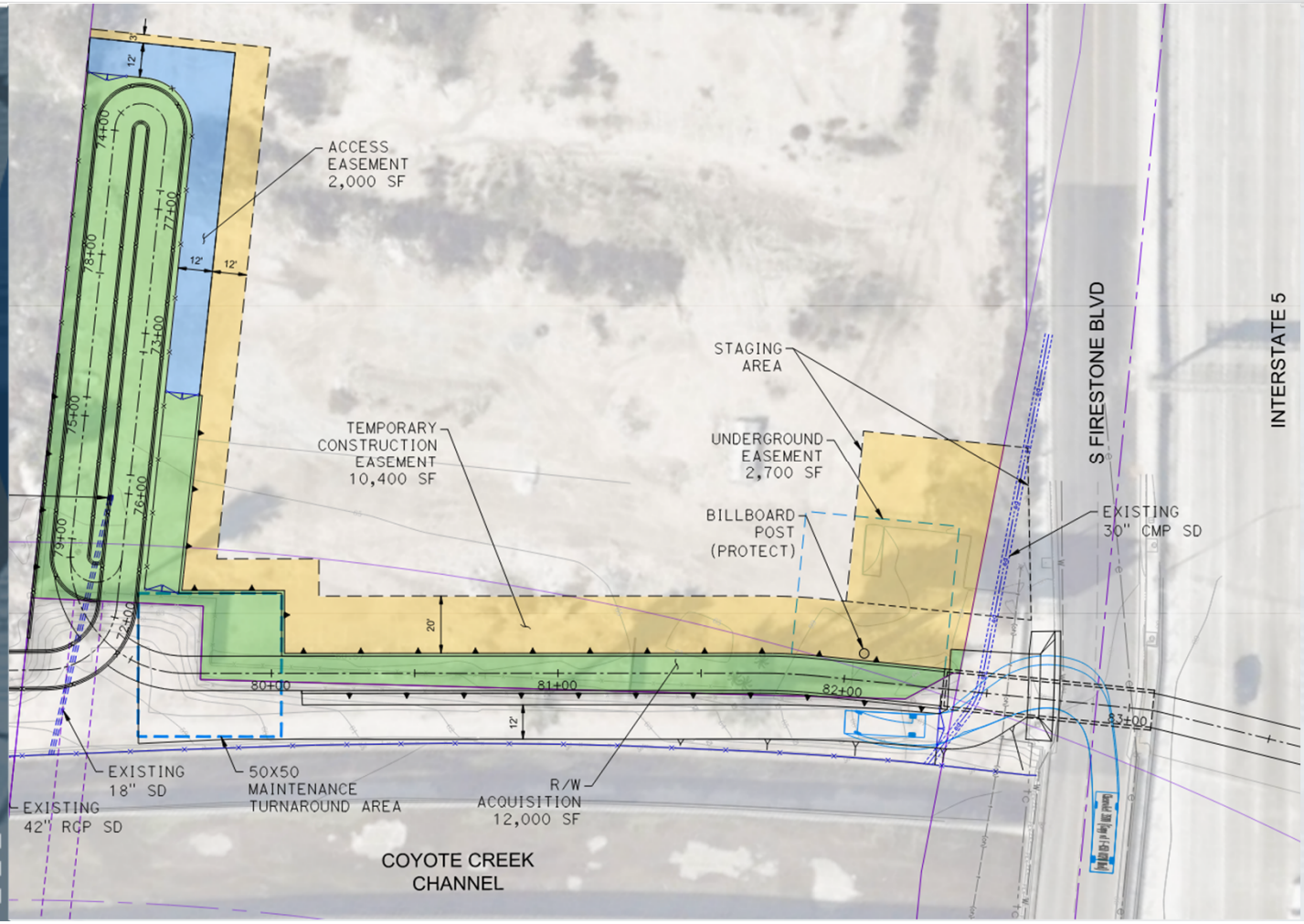
Previous Alternative – UPRR Crossing and Switchback



MARK THOMAS

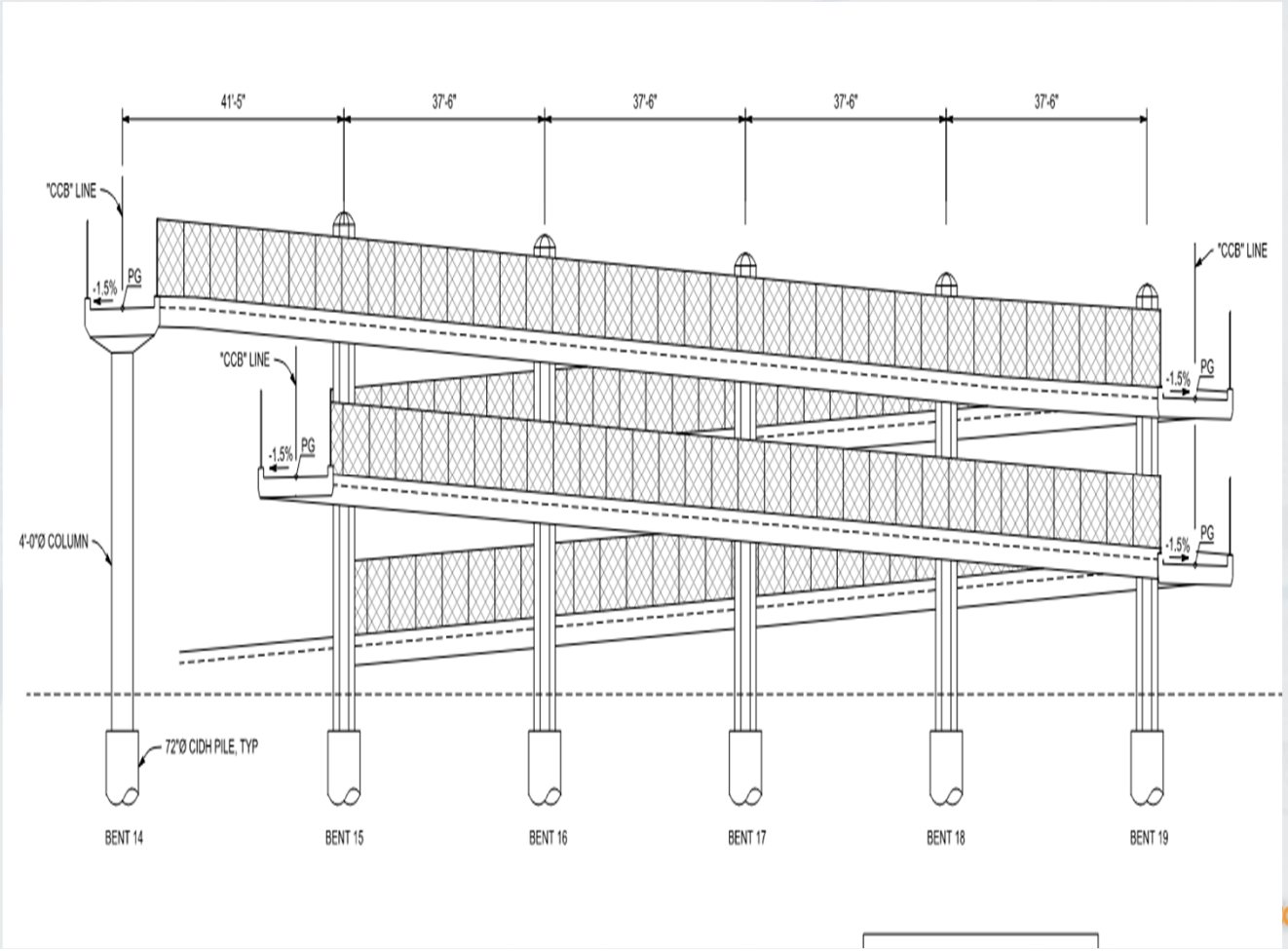
OC PublicWorks

Current Alternative – UPRR Crossing and Switchback



OC PublicWorks

Switchback Elevation View



MARK THOMAS

PublicWorks

Previous Alternative – BNSF Overcrossing



Revised Alternative – BNSF Overcrossing/LACFCD Triangular Parcel

