APPENDIX E2

INITIAL SITE ASSESSMENT - ADDENDUM

CITADEL EHS
assess resolve strengthen

June 26, 2020

Betsy A. Lindsay
President/CEO
ULTRASYSTEMS ENVIRONMENTAL
16431 Scientific Way
Irvine, California 92618

Re: CITADEL Project No. 1358.1015.0
Soil Characterization Letter Report
Initial Site Assessment – Addendum
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. Permanent easements were recently included as part of the Project. The following description of the easements was provided by UltraSystems Environmental (Client):

- 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.

Citadel reviewed the locations of these easements in relation to the Project in the ISA. The easement on La Mirada Boulevard is located at the north end of Segment Q and appears to be landscaped areas; and the easement at Trojan Way is located in Segment P.

Based on Citadel's understanding of the Project and the recognized environmental conditions (RECs) identified in the ISA, the proximity of the Interstate 5 Freeway to the easement at Trojan Way and the proximity of La Mirada Boulevard to the easements along the road may be RECs due to possible shallow soil contamination of aerially deposited lead (ADL) from vehicle exhaust.

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: 2020.06.26 16:57:43 -07'00'

Shirley Lee
Senior Staff Environmental Specialist

Mark Drollinger
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Mark Drollinger M. Eng., CSP, CHMM, EiT
Principal, Engineering and Environmental Sciences

APPENDIX F

JURISDICTIONAL DELINEATION

JURISDICTIONAL DELINEATION REPORT FOR THE OC LOOP SEGMENTS O, P AND Q COYOTE CREEK BIKEWAY PROJECT

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August 2020

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LIST OF ABBREVIATIONS AND ACRONYMS

Acronym/ Abbreviation	Term
Basin Plan(s)	water quality control plan(s)
BMP(s)	best management practice(s)
BNSF	Burlington Northern-Santa Fe Railway Company
BSA	biological study area
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
FGC	California Fish and Game Code
GIS	Geographic Information System
GPS	Global Positioning System
HU	hydrologic unit
HUC	hydrologic unit code
LACFCD	Los Angeles County Flood Control District
LACDPW	Los Angeles County Department of Public Works
MRLA(s)	Major Land Resource Area (s)
NHD	National Hydrography Dataset
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NTCHS	National Technical Committee for Hydric Soils
NWI	National Wetlands Inventory
NWP	Nationwide Permit Program
OHWM	ordinary high water mark
PCN	Preconstruction Notification
PEM	Freshwater Emergent Wetland
ppt	parts per thousand
RCB	reinforced concrete box
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SDA	Soil Data Access
State	State of California
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
UltraSystems	UltraSystems Environmental Inc.
UPRR	Union Pacific Railroad
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 Introduction

On behalf of GHD, UltraSystems Environmental Inc. (UltraSystems) conducted a delineation of waters of the United States and waters of the State of California in support of the proposed OC Loop Segments O, P and Q Coyote Creek Bikeway Project (project; see **Figure 1,** *Project Location*).

Due to the Novel Coronavirus (COVID-19) pandemic and ongoing State of California Stay at Home Order (Executive Order N-33-20), UltraSystems biologists were unable to visit the proposed project site to conduct the jurisdictional delineation. Therefore, on the recommendation of the USACE Los Angeles District Office (Veronica Li, personal communication) UltraSystems' Senior Biologists Michelle Tollett and Allison Carver conducted digital delineations of Coyote Creek using historic and recent aerial imagery (Google Earth, 2020).

On April 9, 2020 Ms. Tollett and Ms. Carver conducted a digital (desktop) delineation of Coyote Creek within the area of proposed project disturbance (project footprint), from approximately 500 feet south (downstream) of the confluence of Coyote Creek and Coyote Creek North Fork (i.e., La Canada Verde Creek) northeast to approximately 400 feet upstream of the La Mirada Boulevard - Coyote Creek overcrossing. The delineation included approximately 1,100 feet of Coyote Creek North Fork upstream of the confluence with Coyote Creek.

This delineation was conducted to determine the presence of potentially jurisdictional waters of the U.S. and State, including wetlands, that may be subject to regulation by the U.S. Army Corps of Engineers (USACE) under § 404 of the Clean Water Act (CWA), by the California State Water Resources Control Board (SWRCB) under § 401 CWA and by the California Department of Fish and Wildlife (CDFW) under § 1602 of the Fish and Game Code (FGC) (collectively referred to as "jurisdictional waters"). This report documents the delineation process and results.

1.1 Project Location

The project would be located in northwestern Orange County, on, and occasionally crossing, the Los Angeles County line; in the Cities of Cerritos, La Mirada, and Buena Park, California. The proposed alignment generally parallels Coyote Creek from 183rd Street at the southern end to South La Mirada boulevard at the northern terminus. The proposed project would be located in Township 3 South, Range 11 West, Sections 26, 27, 33, and 34 of the La Habra, Los Alamitos, and Whittier United States Geological Survey (USGS) 7.5-Minute topographic quadrangle maps (USGS, 2018a, 2018b, 2018c; **Figure 1**, *Project Location,* and **Figure 2**, *USGS Topographic Map,* located in **Appendix A***, Figures*).

Land uses in the project area are primarily commercial, light industrial, and residential.

1.2 Project Background

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. 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.

The proposed project involves the construction of a 2.7-mile Class I Bikeway along the Coyote Creek flood control 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.

1.3 Project Purpose

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, and the 2015 OC Loop Gap Feasibility Study (OC Parks).

2.0 Project Description

The proposed project is divided into three Segments (O, P and Q) of the overall OC Loop (see **Appendix B,** *OC Loop Improvement Plans Mapbook*). 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. Conceptual drawings showing all of the improvements associated with the proposed project are provided herein as **Appendix C**, *Project Plans*. Details of crossing areas are located in **Appendix C1**, *2020 Updated Crossing Plans*. The plans originate at Station 10+00.0 (Coyote Creek/North Fork) and terminate at Station 147+22.83 (La Mirada Boulevard/Malvern Avenue).

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 cable fencing would be provided where safety dictates, on one or both sides of the bikeway.

2.1.1 Summary of Segment O Improvements

<u>Location</u>

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. A general plan view of the proposed improvements within OC Loop Segment O is depicted in **Appendix B**, Map 1 of 3.

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 (see **Appendix C**).

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 on site. 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 bikeway if necessary. The location of the fencing (either on one or both sides of the bikeway) would be determined later in the design process,

Valley View Avenue Undercrossing

The next feature of Segment O would be a concrete 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. Under-bridge communications conduit must be relocated. 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 (see Appendix C1).

Artesia Boulevard Ramp

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

2.1.2 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. A general plan view of the proposed improvements within OC Loop Segment P is provided in **Appendix B,** Map 2 of 3*;* conceptual drawings are in **Appendix C**, *Project Plans*.

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 bikeway 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 (see **Appendix C1**).

Union Pacific Railroad Box Jack (Concrete Box) Underground Tunnel

The next feature in Segment P would be a 120-foot-long box jack construction 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-foot-long, 12-foot-wide and 10-foot-tall[1] 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.

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 9.25-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

1 Inside dimensions.

site at the westerly end of the Kensington Drive cul-de-sac). After the concrete box undercrossing tunnel has been installed, it would be covered with road base and paved to its original elevation.

The existing Southern California Edison pole at South Firestone Boulevard may need to be relocated as part of the proposed project. If it is relocated, it would be moved within the ROW to the north side of the box culvert.

I-5, South and North Firestone Boulevard Undercrossing

The 1-5, South and North Firestone Boulevard undercrossing would be located in the City of La Mirada. South Firestone requires an open cut, concrete box culvert beneath the existing roadway. 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. The section under the 1-5 and North Firestone Boulevard would need to be excavated to accommodate the proposed 12-foot-wide bikeway. 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.

2.1.3 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 beneath the Burlington Northern Santa Fe Railway Company (BNSF) industrial lead, the heavily-used BNSF Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor, and Stage Road at grade at McComber Road before ending at La Mirada Boulevard. A general plan view of the proposed improvements within OC Loop Segment P is provided in **Appendix B,** Map 3 of 3*;* conceptual drawings are in **Appendix C**, *Project Plans*.

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

Upstream from 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 crossing, which carries three tracks as well as a railroad turnout (i.e., railroad switch).[2] 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-foot-long, 12-foot-wide and 10-foot-tall[3] 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 railroad crossing 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 abandoned Chevron Oil fuel pipeline. A conflict with utilities would be avoided by 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, bikeway on both sides of Stage Road between McComber Road and Coyote Creek. This Class IV bikeway would be located between McComber and the Stage Road crossing. 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 east 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.

2 A railroad turnout is a mechanical installation enabling railway trains to be guided from one track to another, such as at a railway junction or where a spur or siding branches off.

3 Inside dimensions.

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 west bank of Coyote Creek.

La Mirada Boulevard Detour

The new and existing bikeway would be connected by directing cyclists onto La Mirada Boulevard and constructing a new 10-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 replaced if the owner/City desires. 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 10-foot-wide strip of landscaping on both sides of La Mirada Boulevard, no other existing landscaping would be impacted. New or replacement landscaping will be provided as part of this project if the landowners and City desire, at La Mirada Boulevard. 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 would be prepared as a part of this project. The project would add impervious area. During project design, pervious pavement or impervious pavement with bioswale will be used for the bikeway to meet Regional Water Quality Control Board requirements. If bioswales are incorporated, periodic drainage pipes will be installed to the channel. 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, and the two railroad underpasses, 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.

Bikeway

Where the bikeway 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 bikeway would travel beneath grade, the bikeway surface would be concrete and 10 to 14 feet wide with no shoulders.

2.2 Project Construction

Scheduling

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, unless federal funding is provided in incremental amounts. 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 beneath the roadway 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.
- At-grade crossing construction.
- Installing two prefabricated bridges, two roadway underpasses, walls and box jacking under both railroads.
- Placing asphalt and fencing.
- 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. AT&T conduit must be relocated beneath Valley View Boulevard. 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 bikeway 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 bikeway foundation slab under Artesia Boulevard and the temporary shoring walls at both railroad undercrossings.
- Box-jacking equipment in pits for jacking the reinforced concrete box under the two railroad corridors.
- Flatbed trucks and cranes for installing the steel prefabricated pedestrian bridges.
- Asphalt paving equipment for installing the bikeway 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.

2.3 Construction Staging

Construction staging would involve detouring traffic for the closure of South Firestone Boulevard for installation of the reinforced concrete box. 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 (see Section 2.1.3).

3.0 Regulatory Framework

3.1 Federal

Section 303(d) Clean Water Act. Under section 303(d), Impaired Waters and Total Maximum Daily Loads (TMDLs), of the CWA, states, territories and authorized tribes, are required to develop lists of impaired (polluted) waters. These are waters for which technology-based regulations and other required controls are not stringent enough to meet the water quality standards set by states (e.g., the Basin Plan). The law requires that states establish priority rankings for waters on the lists and develop TMDLs for these waters (USEPA, 2020a).

The 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, with the addition of a margin of safety. TMDLs can be expressed in terms of mass per time (the traditional approach) or in other ways such as toxicity or a percentage reduction or other appropriate measure relating to a state water quality objective. A TMDL is implemented by reallocating the total allowable pollution among the different pollutant sources (through the permitting process or other regulatory means) to ensure that the water quality objectives are achieved (LARWQCB, 2020).

Waters in which a pollutant load exceeds its assigned TMDL are considered "impaired" and placed on the Section 303(d). In California, the SWRCB prepares and maintains the California 303(d) List of Water Quality Limited Segments (303[d] List), which is released as part of the Integrated Report.

Those sections of Coyote Creek and Coyote Creek North Fork that are located within the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB, Region 4) are on the current 303(d) List. Coyote Creek North Fork is on the §303(d) List of Impaired Waters for fecal indicator bacteria and selenium. Coyote Creek is on the §303(d) List of Impaired Waters for fecal indicator bacteria, dissolved copper, pH, toxicity, malathion, and iron. These streams and the related water pollutants for which they are listed are presented in **Table 3.1-1**.

The majority of the proposed project (along Coyote Creek) falls under the jurisdiction of the Santa Ana RWQCB (SARWQCB, Region 8); however, Coyote Creek is not listed as an impaired waterbody by the SARWQCB (SWRCB, 2017).

Table 3.1-1
TOTAL MAXIMUM DAILY LOADS FOR COYOTE CREEK AND COYOTE CREEK NORTH FORK

Stream Name	Regional Board	Pollutant	Pollutant Category	Potential Sources
Coyote Creek North Fork	Los Angeles (Region 4)	Indicator Bacteria	Fecal Indicator Bacteria	Source Unknown
		Selenium	Metals/Metalloids	Source Unknown
Coyote Creek	Los Angeles (Region 4) a	Copper, Dissolved	Metals/Metalloids	Source Unknown
		pH	Miscellaneous	Source Unknown
		Toxicity	Toxicity	Source Unknown
		Indicator Bacteria	Fecal Indicator Bacteria	Source Unknown
		Malathion	Pesticides	Source Unknown
		Iron	Metals/Metalloids	Source Unknown

Source: SWRCB 2017

Section 401 Clean Water Act. Pursuant to § 401 of the CWA, a water quality certification is required for § 404 activities. The U.S. Environmental Protection Agency (USEPA) has empowered the California State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) to certify that 404 discharges comply with federal and state water quality standards and ensure that there is no net loss of wetlands through impact avoidance, minimization, and mitigation. 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 Clean Water Act. Section 404 CWA requires authorization from the Secretary of the Army, acting through the Corps of Engineers, for the discharge of dredged or fill material into all waters of the United States, including wetlands. Authorizations are conducted through the issuance

of Nationwide (or General) Permits, for activities that would cause only minimal permanent individual (between 0.1 and 0.5 acre) and cumulative impacts; through Individual (or Standard) Permits for activities that are likely to have more than a minimal permanent (greater than 0.5 acre) or cumulative impact on aquatic resources; and through Letters of Permission (LOPs) which are a type of individual permit issued through an abbreviated process that includes coordination with federal and state fish and wildlife agencies and a public interest evaluation, but without the 30-day permit notice period that is required for Individual Permits. The Los Angeles District of the USACE will provide review and permitting services for this project.

Section 408 River 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.

3.2 State

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act 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 nuisances 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 U.S. and waters of the State. 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.

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.

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 [OAL] 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 Waste Discharge Requirements

(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.

Construction Stormwater Program. The SWRCB and the nine RWQCBs implement water quality regulations under the federal CWA and California Porter-Cologne Water Quality Control Act. Existing water quality control regulations require compliance with the National Pollutant Discharge Elimination System (NPDES) for discharges of stormwater runoff associated with a construction activity.

Dischargers whose projects disturb one acre 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, 2009-0009-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, stormwater 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 stormwater runoff, and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, and 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 waterbody recorded on the § 303(d) CWA List of Impaired Waterbodies as impaired 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.

Lake or Streambed Alteration Agreement. Sections 1600-1616 of the California Fish and Game Code (FGC) protect the natural flow and the bed, channel, and bank of any river, stream, or lake designated by the California Department of Fish and Wildlife (CDFW) which is at any time an existing fish or wildlife resource, or from which these resources derive benefit. General project plans must be submitted to CDFW in sufficient detail to indicate the nature of the project proposed for construction, if the project would:

- Divert, obstruct, or change a streambed;
- Use material from the streambeds;
- 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.

The South Coast Region of the CDFW serves Los Angeles County and a § 1602 Lake or Streambed Alteration Agreement would be required from this Region for any project-related impacts to the streambed, banks, or channel of Coyote Creek and Coyote Creek North Fork.

4.0 Methodology

Prior to conducting the digital delineation, a review of readily available data relevant to the project was performed and the results were compiled from aerial imagery, USGS topographic maps, National

Wetland Inventory (NWI) maps, data from the U.S. Environmental Protection Agency's Watershed Assessment, Tracking, & Environmental Results System (WATERS), and Natural Resources Conservation Service (NRCS) soil surveys to determine areas of potential USACE, RWQCB, and CDFW jurisdiction, e.g. the location of any potential waters of the U.S. and State, including wetlands. Additionally, the Orange County and Los Angeles County Flood Control District's Storm Drain System online mapping programs were reviewed for the "as-built" limits of the concrete-lined channels.

Because Coyote Creek and Coyote Creek North Fork are concrete-lined channels throughout the project area, which is developed and urbanized, areas of potential jurisdiction to the USACE and RWQCB were evaluated and digitally delineated in accordance with the guidelines set forth in the following manuals:

- USACE 1987 *Wetland Delineation Manual* (*Manual*),
- The *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (*Arid West Supplement*; USACE, 2008),
- *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* (*OHWM Guide*; Lichvar and McColley, 2008)
- *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (*OHWM Supplement*; Curtis and Lichvar, 2010).

Notes and photographs from an earlier biological field investigation (UltraSystems, 2020) were also used to assist with the digital jurisdictional delineation. Due to private property and ROW restrictions, only those within the project footprint and within a 150-foot buffer, which together comprised the Biological Study Area (BSA; e.g., in and along the channel, channel walls, and berms), were investigated.

The project area is comprised of concrete-lined flood control channels which serve to convey flows from the historic Coyote Creek and North Fork of Coyote Creek, both tributaries to the San Gabriel River. The concrete-lined channels were originally built by the USACE to protect property and control flows originating from northern Orange County and eastern Los Angeles County flowing towards the San Gabriel River and, ultimately, to the Pacific Ocean.

Field Survey. On February 21 and March 6, 2020, UltraSystems' biologists Michelle Tollett and Hugo Flores conducted a reconnaissance survey for potentially jurisdictional features within the impact area of the proposed project to the lateral extent of jurisdictional waters, and continued their survey 150 feet upstream and downstream of the project footprint (at Segment O and Segment Q). Wetlands and other waters of the U.S. and State that are located outside of this segment of the BSA and not within known or anticipated areas of project-related ground disturbance would not be affected by the project and were therefore not delineated.

Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. It was expected that the channel was devoid of hydrophytic vegetation and hydrophytic soils within the proposed impact area, due to the concrete channel bottom and the ongoing maintenance of the channel by the Orange County Flood Control District (OCFCD). Therefore, use of the Manual (USACE, 1987) for identification and analysis of hydrophytic vegetation and hydrophytic soils was unnecessary; however, it was used to determine hydrology, as several hydrologic indicators were present. In addition to the hydrologic indicators in the Manual,

the OHWM Field Guide (Lichvar and McColley, 2008) and the OHWM Supplement (Curtis and Lichvar, 2010) were used to determine the OHWM. The OHWM is a defining element used to identify the lateral limits of non-wetland waters under Section 404 of the Clean Water Act (33 U.S.C. 1344).

Only those potentially jurisdictional features in and along the bed and banks near the project impact area and within the BSA were investigated and later delineated. During the field investigation, a 400-foot:one-inch-scale color aerial photograph and the previously-cited USGS topographic maps were used in conjunction with the hydrogeomorphic indicators and general morphology along the channel-bottom and banks to determine the locations of potential areas of USACE, RWQCB, and CDFW jurisdiction.

Per the OHWM Supplement, "in dry-land fluvial systems typical of the Arid West, a clear natural scour line impressed on the bank, recent bank erosion, destruction of native terrestrial vegetation, and the presence of litter and debris are the most commonly used physical characteristics to indicate the OHWM" (Lichvar and McColley, 2008).

Due to the channelization of this waterway, vegetative indicators of the OHWM were completely absent; therefore, hydrogeomorphic indicators including breaks in bank slope, staining of concrete, silt deposits, litter (organic debris, small twigs and leaves), and drift (organic debris, larger than twigs; Lichvar and McColley, 2008) were used to determine the OHWM. The channelization of Coyote Creek has undoubtedly resulted in increased stream velocity and slope, reduced hydraulic roughness, increased sediment transport and capacity, and transport of excess sediment to unaltered reaches downstream causing aggradation and increased flooding. Due to these characteristics of an urbanized channel, no other field indicators were available.

Safety issues prevented a complete field investigation due to steep channel banks and due to the stay-at-home order issued by Governor Gavin Newsom (California Executive Order N-33-20, March 19, 2020), whereby conducting a jurisdiction delineation with multiple coworkers was deemed unsafe. Therefore, the remainder of the delineation was performed as a desktop delineation, using field notes, photographs, and aerial photography, as described below.

Post-Survey Desktop Delineation. To assist with identification of the OHWM, available historic aerial photography from Google Earth were used to conduct a desktop (i.e., digital) delineation, keeping in mind the aforementioned locations of the hydrogeomorphic and geomorphic indicators [breaks in bank slope, staining of concrete, silt deposits, litter (organic debris, small twigs and leaves), and drift (organic debris, larger than twigs)] to determine the likely locations of the limits of USACE, RWQCB, and CDFW jurisdiction. Due to the channel structure, the area was devoid of any active floodplains and low terraces (Google, 2020).

The breaks in slope, staining of concrete, and some drift was visible on the historic aerials, which allowed for digitizing of the jurisdictional areas in Google Earth, which was then converted to GIS for preparation of a representative figure for the jurisdictional delineation.

The *OHWM Supplement* (Curtis and Lichvar, 2010) calls for a review of stream gage data and rainfall maps to assist in determining the recent flow regimes of a site. Because an active stream gage is not located in Coyote Creek channel, or within a nearby, topographically similar stream channel, a Bulletin 17C statistical analysis was not conducted.

Results of the delineation surveys are provided in Section 6.0 and in **Appendix D,** *OC Loop Jurisdictional Areas Mapbook*.

5.0 Data Review Results

5.1 National Wetland Inventory Wetlands

The NWI's objective of mapping wetlands and water habitats is to produce reconnaissance-level information on the location, type and size of these resources. The maps are prepared from the analysis of high-altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis (USFWS, 2020).

Wetlands or other mapped features may have changed since the date of the imagery and/or field work involved in creating the NWI maps. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions onsite. Additionally, federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory (USFWS, 2018).

The NWI has mapped two wetland types within the project area, as described below:

- **Freshwater Emergent Wetland (PEM):** These generally includes all nontidal wetlands characterized by erect, rooted, herbaceous hydrophytes, usually dominated by perennial plants, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. PEM wetlands also include wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 20 acres; (2) lacking active wave-formed or bedrock shoreline features; (3) water depth in the deepest part of basin less than 8.2 feet at low water; and (4) salinity due to ocean-derived salts less than 0.5 parts per thousand (ppt).

  The NWI mapped a small area of PEM wetlands in Coyote Creek between Trojan Way and Knott Avenue; this mapped wetland had the qualifiers of *Persistent* (dominated by species that normally remain standing at least until the beginning of the next growing season), *Seasonally Flooded* (surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years), and *Excavated* (which identifies wetland basins or channels that were excavated by humans).

- **Riverine Wetlands (R):** Riverine wetlands include all wetlands and deepwater habitats contained within natural or artificial channels, except for wetlands dominated by trees, shrubs, persistent emergent (including mosses) and lichens, as well as habitats with water containing ocean-derived salts of 0.5 ppt or greater.

  The NWI has mapped Coyote Creek and Coyote Creek North Fork (with the exception of the PEM wetland described above) as a riverine wetland with the qualifiers of *Intermittent* (channels that contain flowing water only part of the year; when the water is not flowing, it may remain in isolated pools or surface water may be absent), *Streambed* (Intermittent Riverine Systems and all channels that are completely dewatered at low tide), *Seasonally Flooded*, and *Excavated*.

Field surveys of the project alignment determined that Coyote Creek North Fork and Coyote Creek are concrete-lined flood control channels throughout the BSA and do not support wetlands, wetland soils, or hydrophytic vegetation (refer to **Appendix F**, *Site Photographs*)

5.2 Soils

Soil data from the United States Department of Agriculture (USDA) NRCS Web Soil Survey (Soil Survey Staff, 2020) was reviewed for inclusion on the Soil Data Access (SDA) Hydric Soils List (USDA NRCS, 2020). The project spans the *Los Angeles County, California, Southeastern Part; and Orange County and Part of Riverside County, California* soil survey areas. Six soil types are mapped along the project alignment and are presented in **Table 5.2-1**. None of the mapped soils are included in the current SDA list for California.

Table 5.2-1
SOIL TYPES OCCURRING WITHIN THE PROJECT AREA

Soil Name	Soil Symbol	Typical Landforms	Hydric? (Y/N)	Natural Drainage Class	Parent Material
Chino silty loam, drained	140, 140oc	Alluvial fans	N	Somewhat poorly drained	Alluvium derived from sedimentary rock
Urban land-Hueneme, drained-San Emigdio complex, 0 to 2 percent slopes	1000	Alluvial fans	N	Somewhat poorly drained	Discontinuous human-transported material over mixed alluvium derived from granite and/or sedimentary rock
Urban land-Metz-Pico complex, 0 to 2 percent slopes	1000LA	Floodplains	N	Somewhat excessively drained	Discontinuous human-transported material over mixed alluvium derived from granite and/or sedimentary rock
Urban land-Biscailuz-Hueneme, drained complex, 0 to 2 percent slopes	1005	Alluvial fans	N	Somewhat poorly drained	Discontinuous human-transported material over mixed alluvium derived from granite and/or sedimentary rock
Urban land-Ballona-Typic Xerorthents, fine substratum complex, 0 to 5 percent slopes	1137, 1137LA	Alluvial fans	N	Well drained	Discontinuous human-transported material over young alluvium derived from sedimentary rock
Urban land, frequently flooded, 0 to 5 percent slopes	1261, 1261LA	Channels	N	Not rated	Not specified

Source: Soil Survey Staff 2020.

5.3 Climate and Hydrologic Data

Watershed. The pedestrian bridge at the start of Segment O is in the southern tip of the La Mirada Creek hydrologic unit (HU; Hydrologic Unit Code 180701060602, as shown in **Figure 3**, *USGS Surface*

Waters and Watersheds); however, the remainder of the project is in the Brea Creek-Coyote Creek hydrologic unit (HUC 12 180701060603). Both of these HUs are within the larger Lower San Gabriel River watershed (HUC 10 1807010606). The Brea Creek-Coyote Creek HU drains approximately 49 square miles, with the project located in the urbanized southwestern area of the HU, trending northeast (USEPA, 2020).

Geology. The project is located in the Southern Coastline Geomorphic Sub-Province of the Peninsular Ranges Geomorphic Province (Fuller, 2015). This sub-province runs along the western edge of the provinces of the Transverse Ranges and the Peninsular Ranges. Along the southern section, the coastal geomorphology is superimposed on the landforms of the Transverse Ranges and Peninsular Ranges geomorphic provinces. The southern coastline trends northwestwardly from San Diego to Point Conception. Due to the orientation, the southern shores are somewhat sheltered from storms that arrive from the west and northwest.

Segments O and P, and approximately 0.1 mile of Segment Q, are sited on Young Alluvial Fan Deposits (Qyf) which date from the middle Holocene to the late Pleistocene. These deposits are comprised of unconsolidated to slightly consolidated, undissected to slightly dissected clay, silt, sand, and gravel along stream valleys and alluvial flats of larger rivers (Bedrossian et. al., 2012). The remainder of Segment Q is on Very Old Alluvial Fan Deposits (Qvof), dating from the middle to early Pleistocene. These deposits are comprised of moderately to well-consolidated, highly dissected boulder, cobble, gravel, sand, and silt deposits issued from a confined valley or canyon (Bedrossian et. al., 2012).

Temperature and Precipitation. A Western Regional Climate Center has a co-op weather station located near Tuffree Middle School, located in Anaheim approximately 7.5 miles northeast of the end of Segment Q (Anaheim, California Station #040192; WRCC, 2020). This weather station has recorded climate records from 1989 through 2012 and provides the best available insight into the climate in the project area. As with much of southern California, the recorded data show that the region receives the most precipitation during the "wet season", e.g. winter and spring (November – April).

Climate summaries recorded at Station #040192 for the period of record 1989 through 2012 are presented in **Table 5.3-1,** *Temperature Statistics for Anaheim Station #040192 (1989–2012),* and **Table 5.3-2**, *Precipitation Statistics for Anaheim Station #040192 (1989–2012)*.

Table 5.3-1
TEMPERATURE STATISTICS FOR ANAHEIM STATION #040192 (1989– 2012)

	Monthly Averages (°F)			Monthly Extremes (°F)	
	Max	Min	Mean	Highest Mean	Lowest Mean
Annual	77.4	55.4	66.4	67.7	64.2
Winter	69.9	47.6	58.7	61.2	56.7
Spring	74.7	55.5	58.7	68.6	59.4
Summer	84.1	63.0	73.6	78.6	70.7
Fall	81.0	57.4	69.2	73.3	66.2

Table 5.3-2
PRECIPITATION STATISTICS FOR ANAHEIM STATION #040192 (1989– 2012)

	Precipitation Monthly Averages (inches)			Total Snowfall (inches)	
	High	Low	Mean	Mean	High
Annual	41.23	4.86	14,09	0.0	0.0
Winter	26.34	1.86	8.83	0.0	0.0
Spring	8.37	0.00	3.22	0.0	0.0
Summer	1.24	0.00	0.23	0.0	0.0
Fall	8.13	0.00	1.81	0.0	0.0

5.4 Land Use

The project is located in the Southern California Coastal Plain Major Land Resource Area (MRLA; Region 19) of the California Subtropical Fruit, Truck, and Specialty Crop Region. MRLAs are geographically associated land resource units delineated by the Natural Resources Conservation Service and are the basic units for delineating statewide patterns of soils, climate, water resources, and land use by analyzing elevations, topography, and rainfall data (effective amount, timing, kind, and distribution). Nearly two-thirds of Region 19 consists of urban or built-up areas, and other land in the area is rapidly being converted to urban uses. About a third of the area is brushland used for watershed protection. The irrigated crops are subtropical fruits, deciduous fruits, grain, truck crops, grapes, hay, and pasture. Dairy farming and flower seed production are other important enterprises. Some livestock is produced on the rangeland (USDA, 2006, pp. 55-57).

The project site is bounded on all sides by commercial, light industrial, and residential uses which are located within the City of Buena Park, in Orange County, California, and the Cities of Cerritos and La Mirada in Los Angeles County, California.

6.0 Field Investigation Results

6.1 Physical Conditions in the Study Area

As discussed in Section 5.3 and shown in **Figure 3**, the project site is mainly located in the Brea Creek-Coyote Creek Hydrologic Unit (HU Code 180701060603); however, the pedestrian bridge located at station 10+00, where the flood control channel divides into the north and east fork (of Coyote Creek), is in La Mirada 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 drain flow, which comprise the current (and historic) Coyote Creek. The southernmost portion of the project area is the confluence of Coyote Creek and the North Fork of Coyote Creek, both tributaries to the San Gabriel River, ultimately terminating at the Pacific Ocean, in Long Beach, California. All flows within the channel are considered "jurisdictional" waters of the U.S. and waters of the State, protected under Sections 401/404 of the Clean Water Act

and Sections 1600-1616 the California Fish and Game Code, as described in Section 2.1, Regulatory Requirements, of this report.

The 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 mile 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)(**Figure 10**, *National Wetlands Inventory*; also see **Appendix F**, Photo 8); however, no hydrophobic vegetation was observed during the field surveys and the PEM wetland mapped by the NWI was determined to be absent The NWI designation of R4SBCx of Coyote Creek and Coyote Creek North Fork, within the boundary of the proposed project, were determined to be accurate.

At the time of the 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.

6.2 Sections 401 and 404 of the Clean Water Act

The OHWMs were determined using breaks in slopes (e.g., base of channel walls) and water stains, with site photographs and historic aerials employed as references. In some areas, the low-flow channel meandered between the OHWMs and was defined by the presence of algae and water staining. The active floodplain is absent throughout the BSA due to channelization of the creeks, which resulted in the sides of the channels (levees) raised to contain the 100-year flood event (refer to **Appendix D,** *Jurisdictional Areas Mapbook*, for locations of delineated waters of the U.S.).

"Permanent impacts" to waters of the U.S. are defined as "Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not in the measurement of loss of waters of the United States" (WTI, 2017, p. 337). As shown in **Appendices B, C**, and **E**, project-related impacts to waters of the U.S. (e.g. scaffolding, temporary parking) will be removed and the work areas 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.

6.3 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 **Appendix D,** *Jurisdictional Areas Mapbook*, for locations of delineated waters of the State).

7.0 Observed Jurisdictional Status

Using the results of the field investigation described in Section 6.0 of this document, the preliminary determination was made that Coyote Creek North Fork and Coyote Creek are waters of the U.S. and State. Both creeks are jurisdictional to the USACE under § 404 of the CWA; and to the SWRCB under § 401 of the CWA, as well as the California Porter-Cologne Water Quality Control Act, because the water flow from both channels discharge into the San Gabriel River and, ultimately, to the Pacific Ocean, a known water of the U.S.

Coyote Creek North Fork and Coyote Creek were 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, p. E-14).

Final jurisdictional status will be provided by the USACE, SWRCB, and CDFW. The mapbook in **Appendix E**, *OC Loop Impacts to Jurisdictional Waters*, 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 of Coyote Creek and Coyote Creek North Fork, the SWRCB would regulate project discharges under Porter Cologne through the issuance of a WDR.

Photographs of the project area are presented in **Appendix F**.

8.0 Potential Impacts to Waters of the U.S. and State

Potential impacts to areas under the jurisdiction of the USACE (under § 404 CWA), SWRCB (under § 401 CWA and the California Porter-Cologne Water Quality Control Act), and CDFW (under the jurisdiction of § 1602 FGC) were calculated by overlaying the project design, grading, and work areas on the mapped results of the digital delineation. **Refer to Appendix E**, *OC Loop Impacts to Jurisdictional Waters Mapbook*, for location details of impact areas.

Within the project boundary, construction of Segment O (approximately 5,087 linear feet) would result in temporary impacts of 0.48 acre (see **Table 8.0-1**). Within Segment P (approximately 3,540 linear feet), the project would result in approximately 0.05 acre of temporary impact; and within Segment Q (approximately 5,975 feet in length), construction would result in approximately 0.15 acre of temporary impact to waters of the U.S., as shown in **Table 8.0-1** and in **Appendix E**.

Within the project boundary, construction of Segment O would result in approximately 1.21 acres of temporary impacts to waters of the State. Construction of Segment P would result in 0.05 acre of temporary impacts, and construction of Segment Q would result in 0.22 acre of temporary impacts to waters of the State, as shown in **Table 8.0-1**.

Table 8.0-1
JURISDICTIONAL AREAS AND IMPACTS SUMMARY TABLE

Waters Jurisdictional Designation	Length of Segment (feet)	Temporary Impact (acres)	Permanent Impact (acres)	Total Impacts (acres)
Waters of the U.S.				
Segment O	5,087	0.48	0	0.48
Segment P	3,540	0.05	0	0.05
Segment Q	5,975	0.15	0	0.12
Total	**14,602**	**0.69**	**0**	**0.69**
Waters of the State				
Segment O	5,087	1.21	0	1.20
Segment P	3,540	0.05	0	0.05
Segment Q	5,975	0.22	0	0.17
Total	**14,602**	**1.48**	**0**	**1.48**

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 Preconstruction Notification (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 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. 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.

9.0 Literature Cited and References

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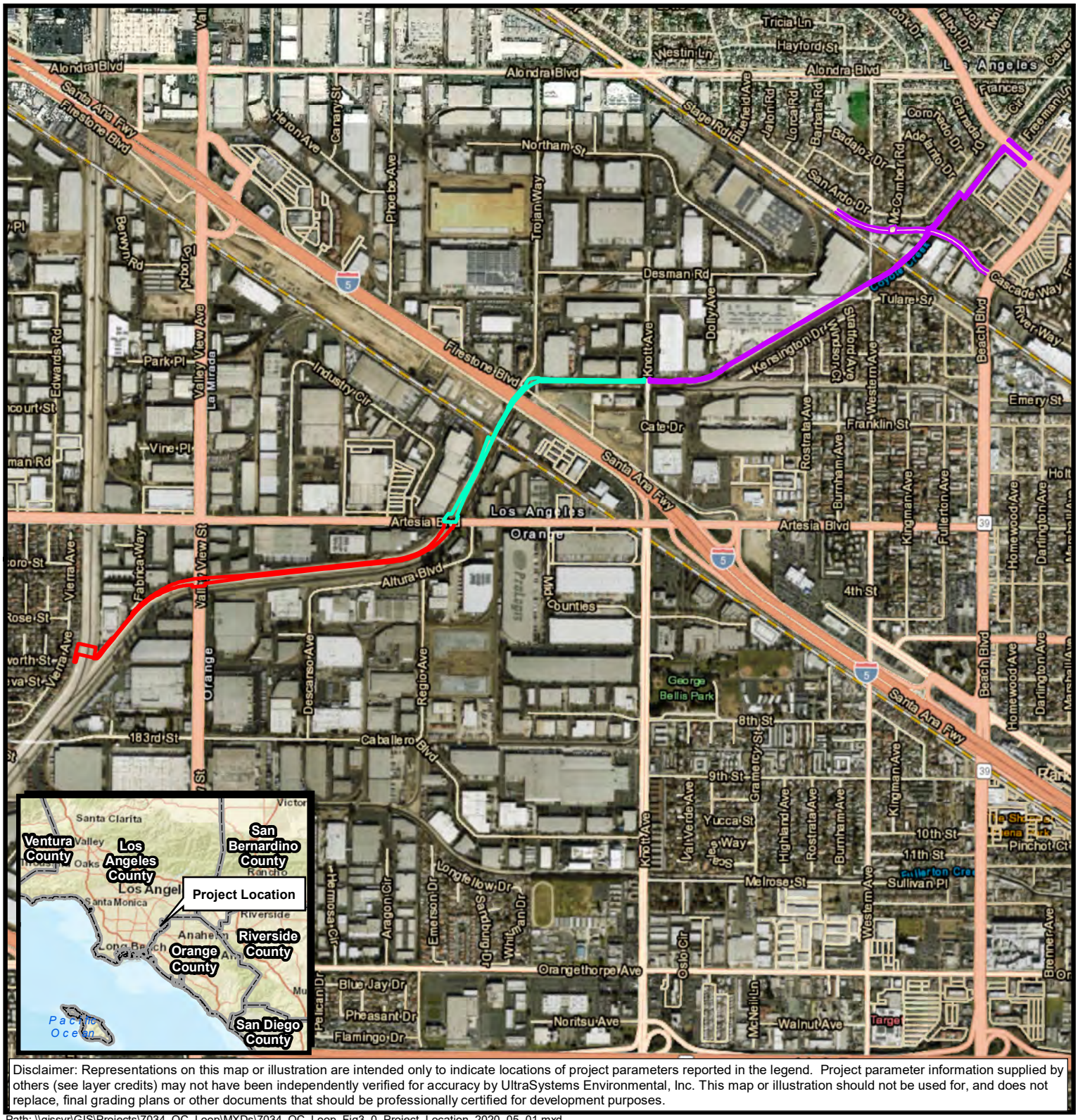
APPENDIX A

FIGURES



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May 01, 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, Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; County of Orange Public Works, 2020; UltraSystems Environmental, Inc., 2020

Scale: 1:19,200

N

0 800 1,600 Feet

0 200 400 Meters

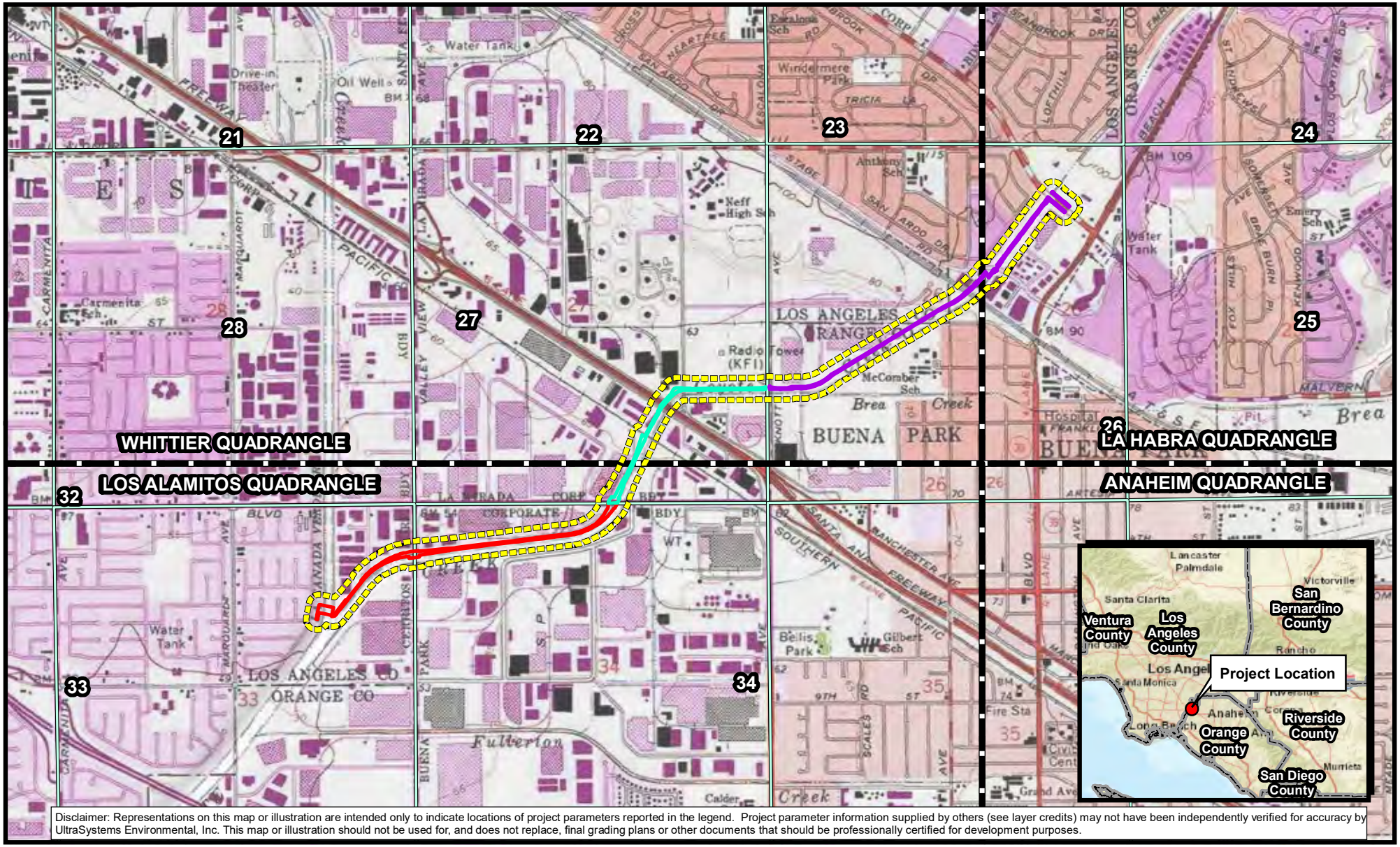
Legend

- Segment O
- Segment P
- Segment Q

OC Loop Segments O, P, and Q

Project Location

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.

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February 12, 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,

N

Scale: 1:24,000

0 1,000 2,000 Feet

0 250 500 Meters

Legend

Project Location

- Segment O
- Segment P
- Segment Q
- 150ft Biological Study Area (BSA)
- Section Boundary
- County Boundary
- Township Boundary
- Quadrangle 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

OC Loop Segments O, P, and Q

Legend

Project Location

- Segment O
- Segment P
- Segment Q
- NHDWaterbody
- NHDFlowline

USGS HUC 12 Watersheds

- Alamitos Bay
- Anaheim Bay
- Brea Creek-Coyote Creek
- Carbon Creek
- Coyote Creek-San Gabriel River
- Fullerton Creek
- La Mirada Creek

Key Map

0 0.5 1 Miles

0 0.6 1.2 Kilometers

N

Scale: 1:63,360

USGS Surface Waters and Watersheds

UltraSystems

Path: \\gissvr\GIS\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Surface_Waters_11x17_2020_05_01.mxd

May 01, 2020

APPENDIX B

OC LOOP IMPROVEMENT PLAN

MAPBOOK

City of La Mirada

LOS ANGELES COUNTY

ORANGE COUNTY

Artesia Blvd

Artesia Blvd

Artesia Blvd

Artesia Blvd Undercrossing

Fence

Wall

Existing Artesia Blvd Bridge

Fence

Bolsa Ln

Fabrica Way

Vierra Ave

Coyote Creek North Fork Flood Control Channel

Valley View St

Fence

Wall

Coyote Creek Flood Control Channel

Altura Blvd

Reglo Ave

Descanso Ave

Road Undercrossing

Existing Valley View Street Bridge

Fence

Fence

Reinforced Concrete Bridge Abutment

City of Cerritos

Descanso Cir

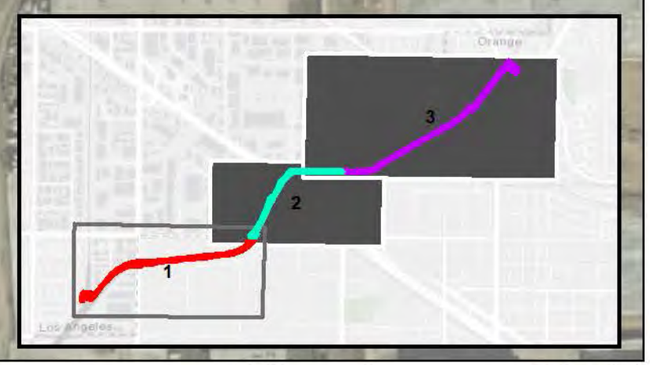
City of BUENA PARK

Vierra Ave

Pre-fabricated pedestrian steel cable arch bridge or bowstring arch bridge

Valley View St

Descanso Ave



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April 25, 2020

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Scale: 1:3,600
1 inch = 300 feet
1 cm = 36 meters

0 150 300 Feet

0 30 60 Meters

Legend

- Segment O Class I Bike Path
- Segment P Class I Bike Path
- City Boundary
- County Boundary
- Proposed Bridge
- Proposed Undercrossing
- Proposed Reinforced Concrete Bridge Abutment
- Proposed Fence
- Proposed Wall

OC Loop Segments O, P, and Q

Segment O Improvement Plan

Map 1 of 3

UltraSystems environmental management planning

Potential Driveway
At-grade Crossing
Proposed Railroad Crossing Signal
N Firestone Blvd
I-5/Santa Ana Freeway
S Firestone Blvd
Trojan Way
Trojan Way
Coyote Creek Flood Control Channel
Brea Creek Flood Control Channel
S Firestone Blvd Undercrossing
I-5 and N Firestone Blvd Undercrossing
Industry Pl
Wall
Osmond Ave
Knott Ave
Industry Cir
UPRR Undercrossing or Bridge
City of La Mirada
Cate Dr
City of BUENA PARK
Wall
Snell St
Osmond Ave
Union Pacific Railroad
Optional Fence
Artesia Blvd Undercrossing
Artesia Blvd
Wall
Altura Blvd
Mid Counties
LOS ANGELES COUNTY
ORANGE COUNTY
Orange
Los Angeles
1
2
3

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September 04, 2020

N

Scale: 1:3,300
1 inch = 275 feet
1 cm = 33 meters

0 140 280 Feet

0 30 60 Meters

Legend

- Segment O Class I Bike Path
- Segment P Class I Bike Path
- Segment Q Class I Bike Path
- County Boundary

Proposed Features

- Optional Fence
- Potential Driveway
- Wall
- At-grade Crossing
- Undercrossing
- Undercrossing or Bridge
- Proposed Railroad Crossing Signal

OC Loop Segments O, P, and Q

Segment P

Map 2 of 3

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Metro Link Railway
Stage Rd
Barbata Rd
Badajoz Dr
San Bruno Dr
San Ardo Dr
Northam St
City of La Mirada
Desman Rd
LOS ANGELES COUNTY
ORANGE COUNTY
Dolly Ave
Knott Ave
Coyote Creek Flood Control Channel
Fence
At-Grade Crossing
Proposed Railroad Crossing Signal
Existing UPRR Railroad
McCormber Rd
Adelanto Dr
Park McCormber Cir
La Mirada Blvd
At-grade Crossing
Concrete Barriers
Prefabricated steel cable arch bridge or bowstring arch bridge
Asphalt trail with cable railing
Wall
Dodds Ave
BNSF/Metro Link Railroad Undercrossing
Coyote Creek Cir
Beach Blvd
Maud Dr
Malvern Ave
Humboldt Dr
Falls Way
Cascade Way
Tulare St
City of BUENA PARK
Kensington Dr
Cambridge Ave
Windsor Ct
Stratford Ave
Kingman Ave
Pacific Ave
Fullerton Ave
Coventry Cir
Oxford Ave
Craig Ave
Western Ave
Orange
Los Angeles
1
2
3

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May 01, 2020

N

Scale: 1:4,850
1 inch = 404.17 feet
1 cm = 48.5 meters

0 200 400 Feet

0 50 100 Meters

Legend

- Segment P Class I Bike Path
- Segment Q Class I Bike Path
- City Boundary
- County Boundary
- Proposed Bridge
- Proposed Undercrossing
- Proposed Asphalt Trail
- Proposed At-Grade Crossing
- Proposed Fence
- Proposed Wall
- Proposed Railroad Crossing Signal

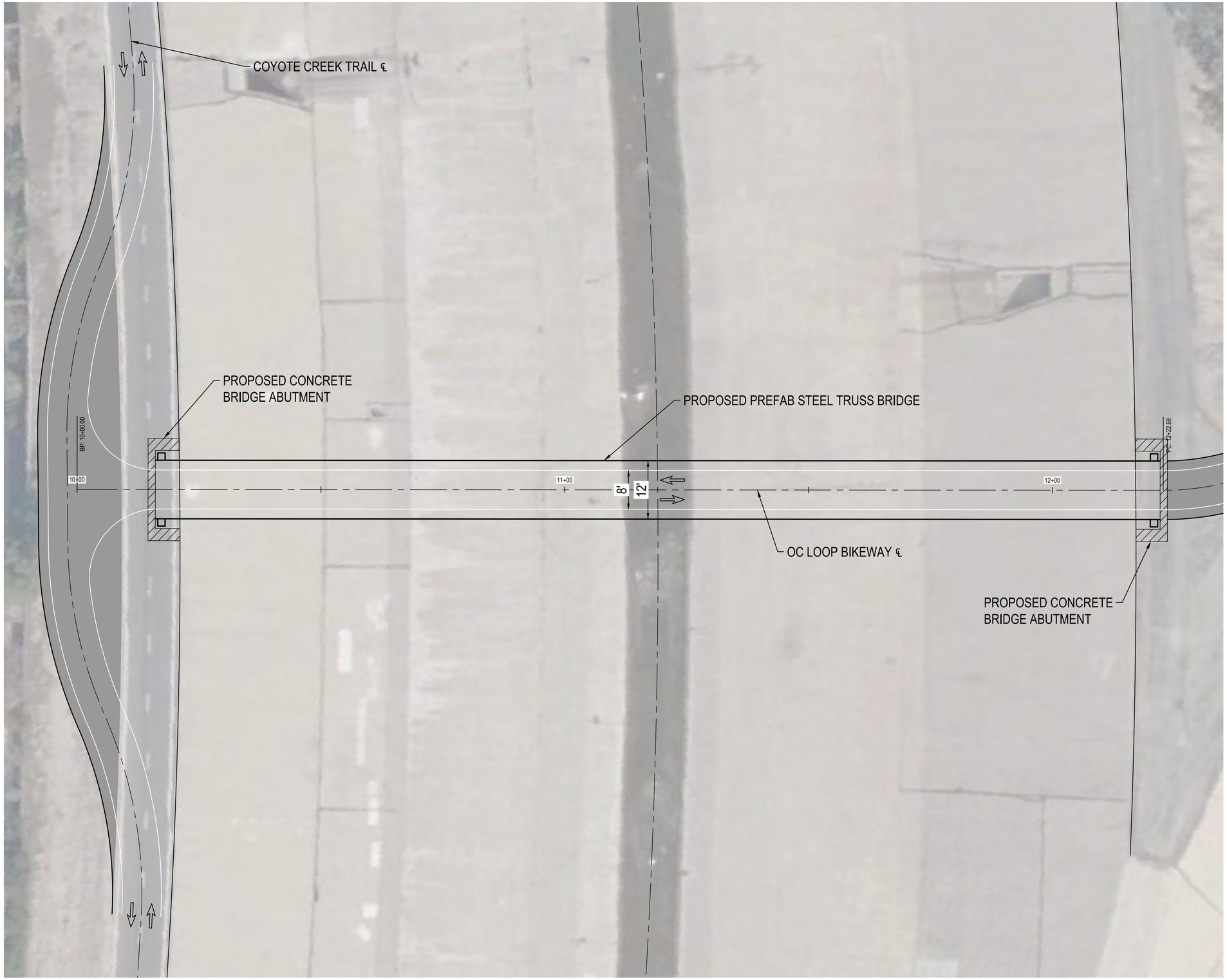
OC Loop Segments O, P, and Q

Segment Q Improvement Plan

UltraSystems environmental management planning

APPENDIX C1

2020 UPDATED CROSSING PLANS



DIGALERT

DIAL TOLL FREE
811
AT LEAST TWO DAYS
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

DATE

DESIGNED BY: ---
DRAWN BY: ---
CHECKED BY: ---
DRAWING NO: C-101
FILE NAME: 11260772-C-101-PedBridge.dwg
PLOT DATE: 4/10/2020 4:30 PM
SCALE: AS SHOWN

County of Orange
OC Public Works

PREPARED BY:
GHD Inc.
3201 Goddard Way Suite 200
Irvine California 92618 USA
T 1 949 648 5200
F 1 949 648 5299
W www.ghd.com

SEGMENTS O, P, Q
STA 10+00 TO STA 12+50

1-PEDBRIDGE

SHEET
C-101
1 OF 15

Plotted By: Myung Choo
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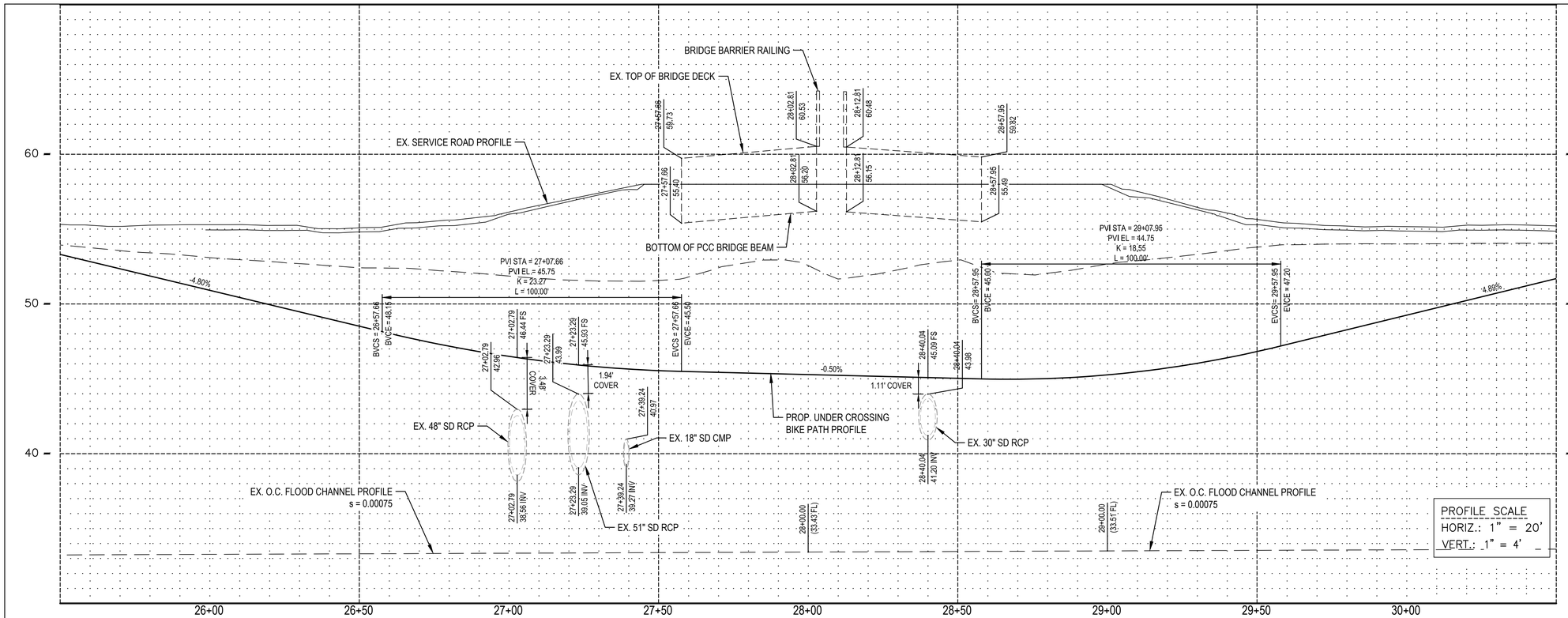

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COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NO:
FILE NAME:
PLOT DATE:
SCALE:

County of Orange
OC Public Works

PREPARED BY:
CHD Inc.
3200 El Camino Real Way Suite 200
Irvine California 92618 USA
T 1 949 648 5200
F 1 949 648 5299
W www.chd.com

SHEET

OF

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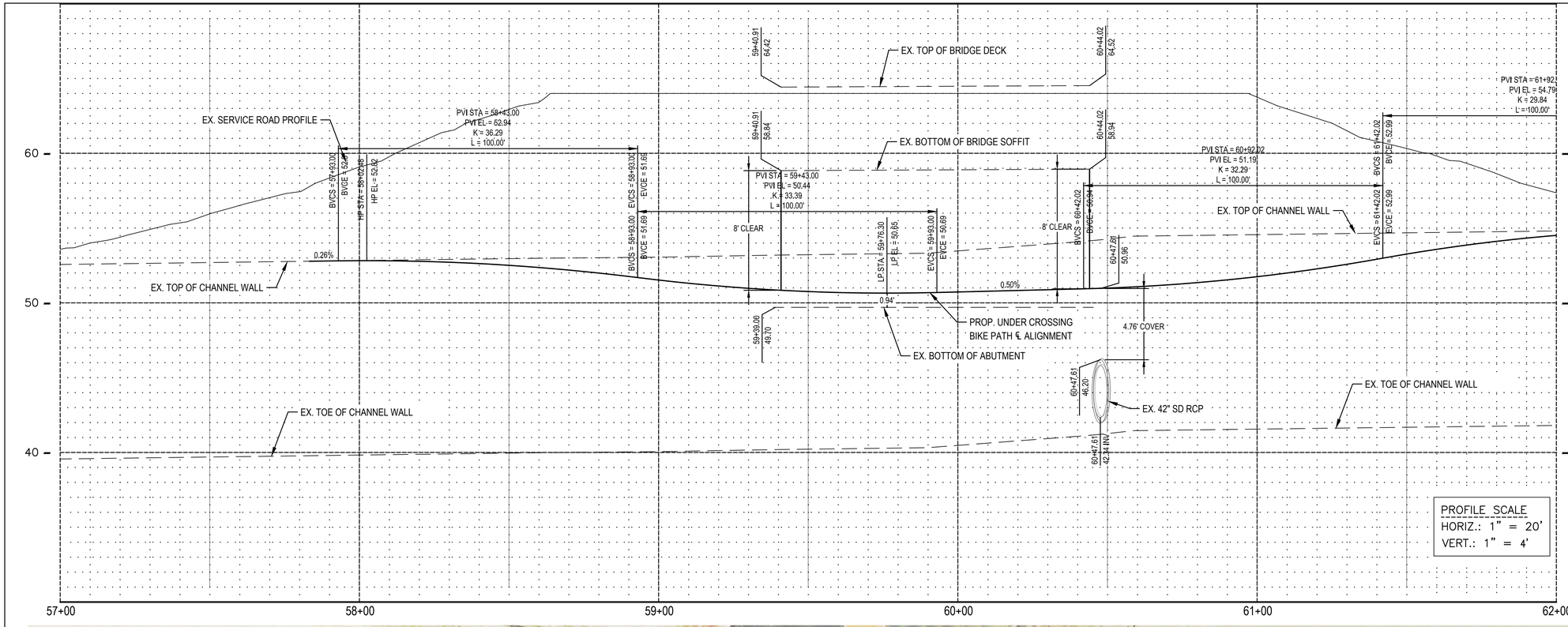

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COUNTY OF ORANGE CALIFORNIA

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PREPARED UNDER THE RESPONSIBLE CHARGE OF:

DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NO:
FILE NAME:
PLOT DATE:
SCALE:

County of Orange
OC Public Works

PREPARED BY:
GHD Inc.
2020 Main Street 9thy Suite 200
Irvine California 92618 USA
T: 1 949 648 5200
F: 1 949 648 5299
W: www.ghd.com

SHEET

OF

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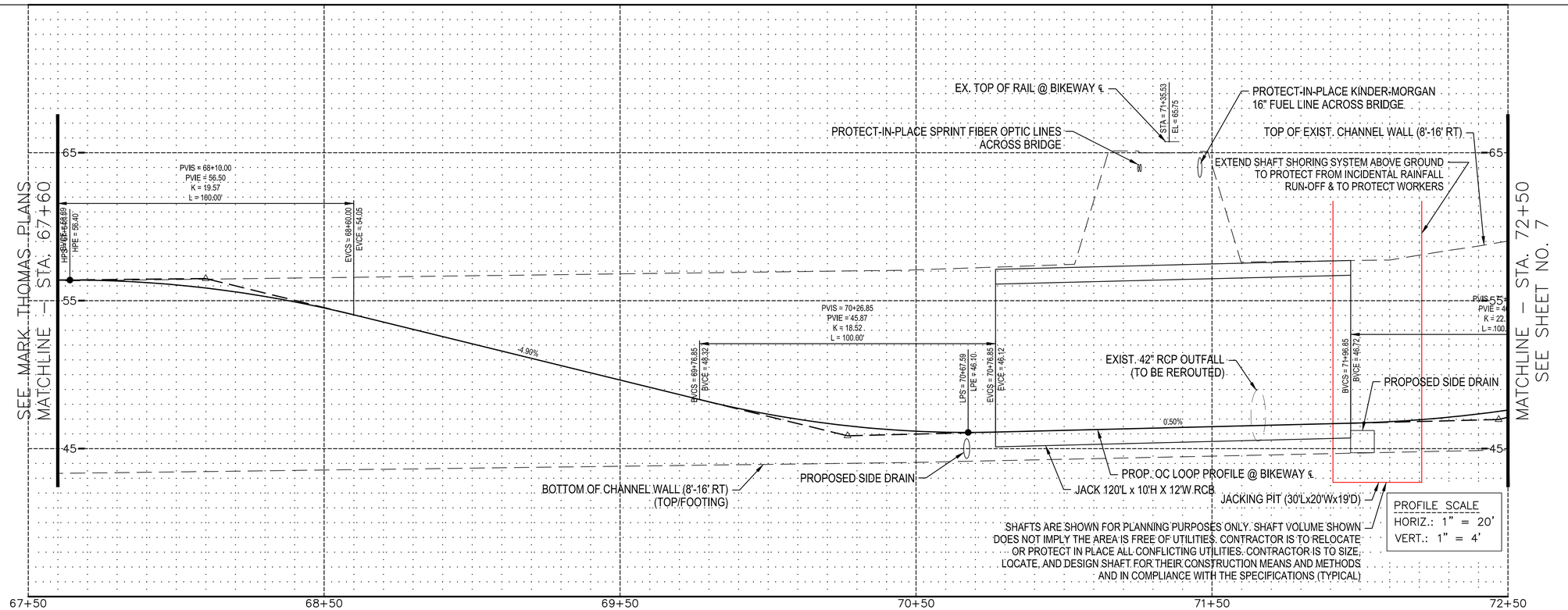

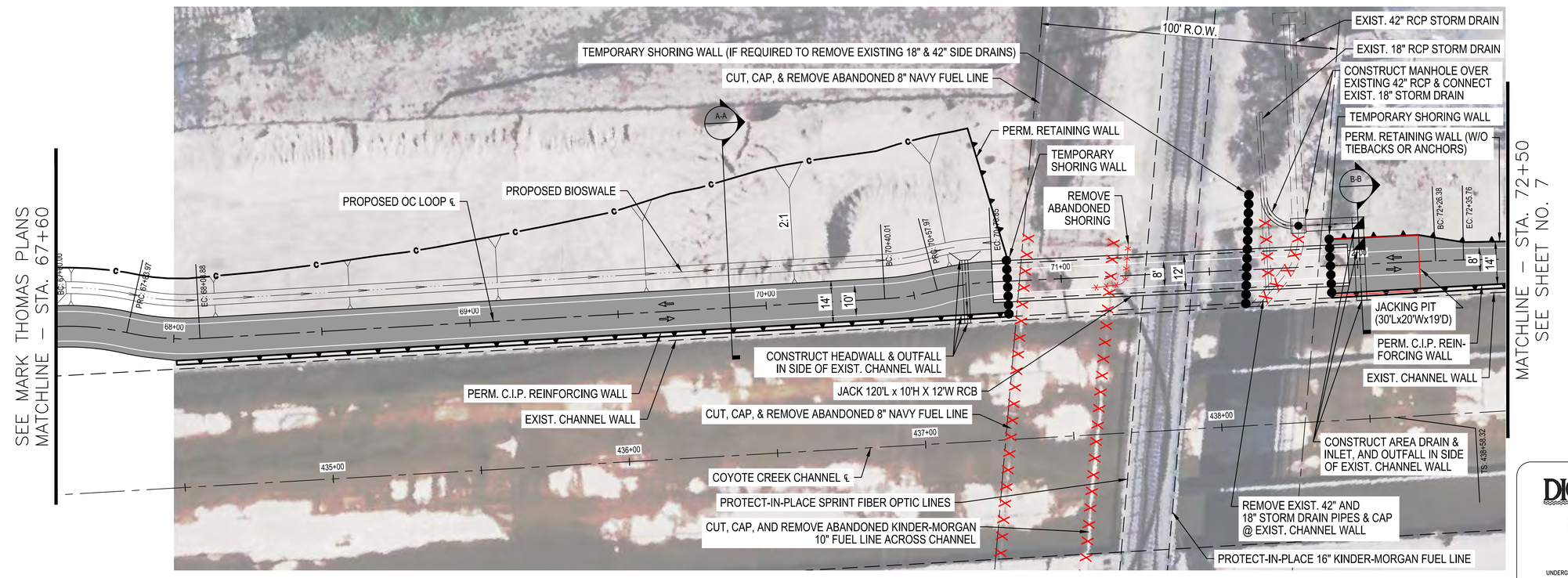

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CALIFORNIA

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DESIGNED BY:
DRAWN BY:
CHECKED BY:

DRAWING NO.
C-106

FILE NAME:
11206772-DC-Corr-UP-Firestone-I5.dwg

PLOT DATE:
####

SCALE:
AS SHOWN

County of Orange
OC Public Works

PREPARED BY:
GHD Inc.
3000 Oakbrook Way, Suite 200
Irvine California 92618 USA
T 1 949 648 5200
F 1 949 648 5299
W www.ghd.com

OC LOOP
SEGMENTS O, P, Q
STA 68+50 TO STA 73+50

UPRR BOX-JACK
UNDERCROSSING

SHEET
C-106
6 OF 15

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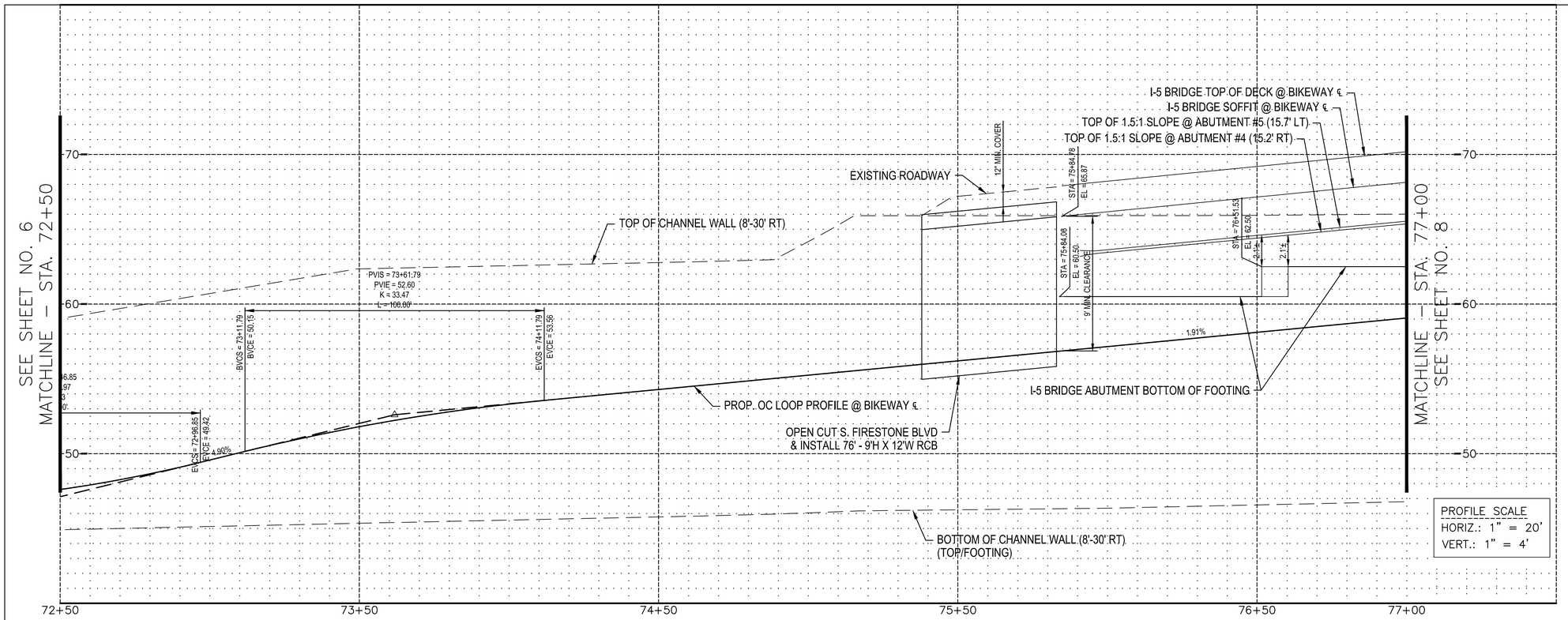

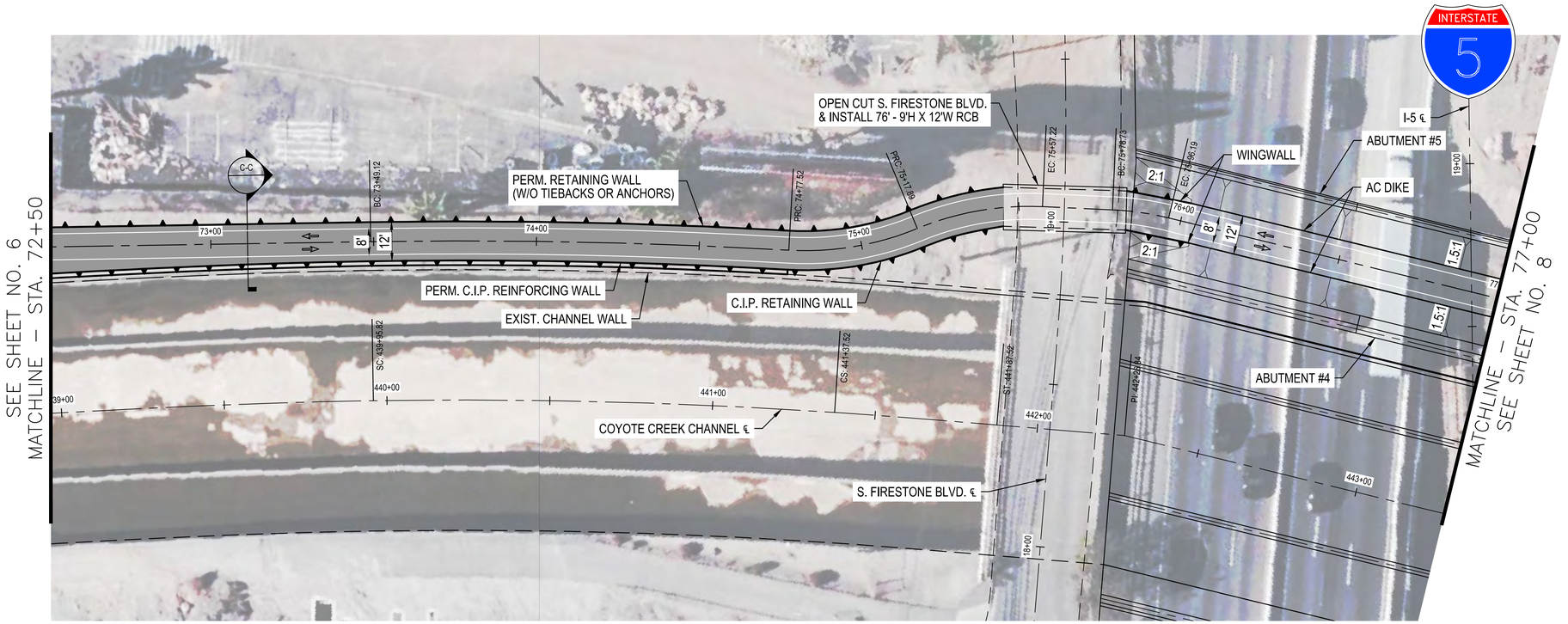

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COUNTY OF ORANGE CALIFORNIA

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DATE

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CHECKED BY:
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PLOT DATE: ####
SCALE: AS SHOWN

County of Orange
OC Public Works

PREPARED BY:
GHD Inc.
2020 Main Street Wire Suite 200
Irvine California 92618 USA
T | 1 949 648 5200
F | 1 949 648 5299
W | www.ghd.com

OC LOOP
SEGMENTS O, P, Q
STA 73+50 TO STA 78+00

S. FIRESTONE & I-5 UNDERCROSSING

SHEET
C-107
7 OF 15

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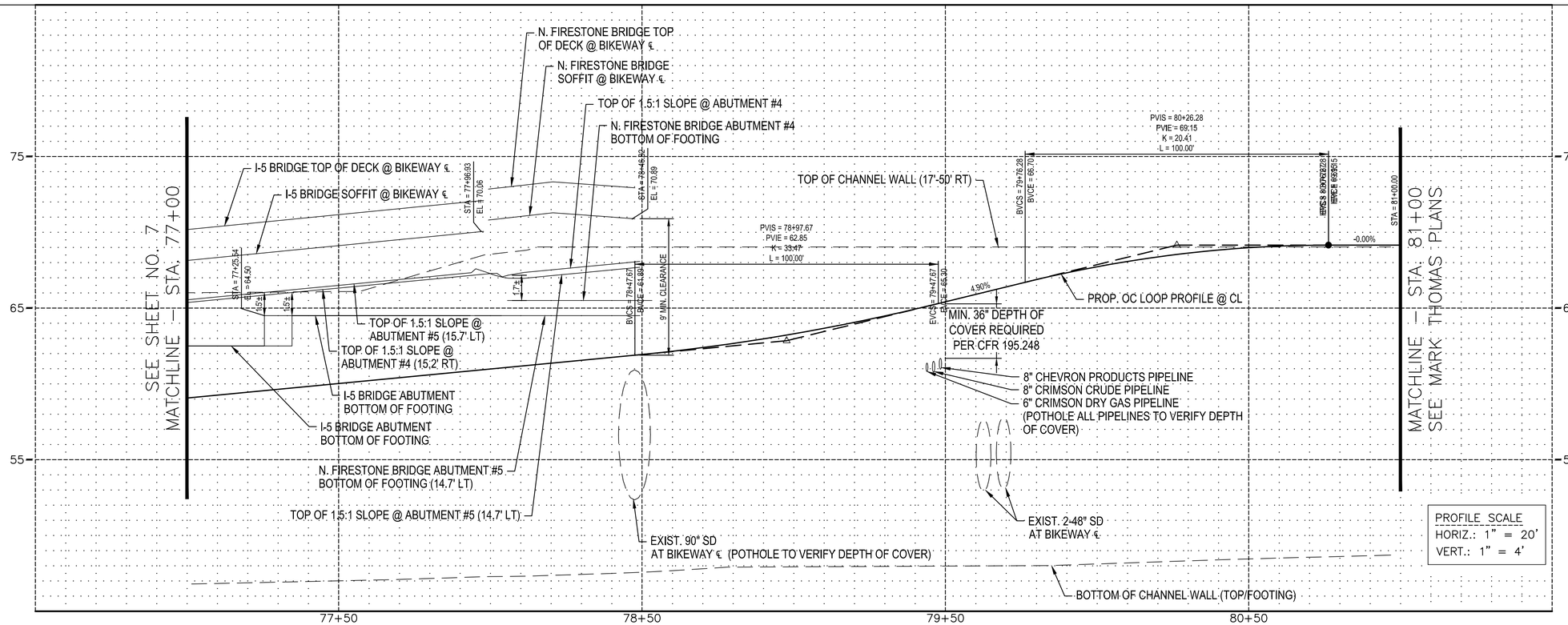

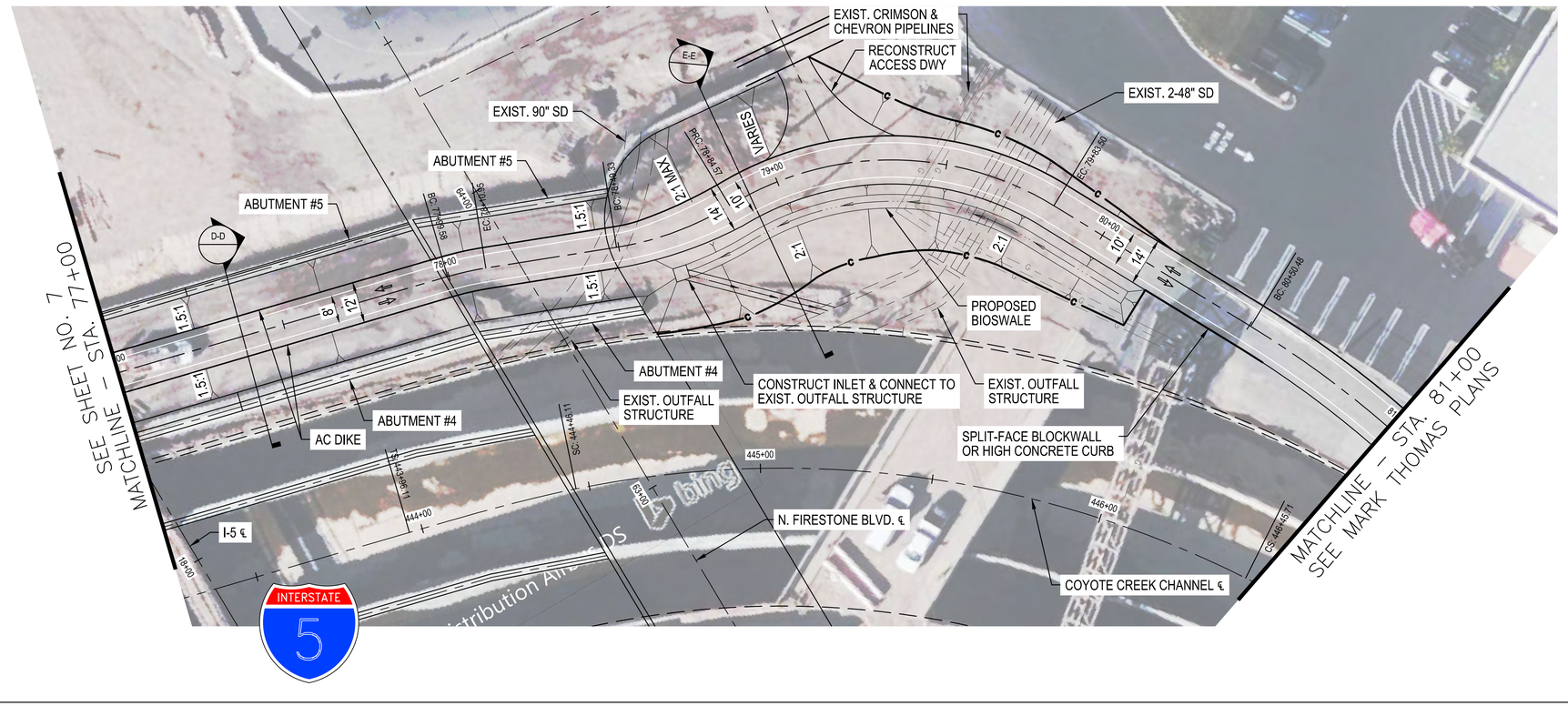

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811
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

DATE

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DRAWN BY:
CHECKED BY:
DRAWING NO: C-108
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PLOT DATE: ####
SCALE: AS SHOWN

County of Orange OC Public Works

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3001 Dallas Parkway, Suite 200
Irvine, California 92618, USA
T 1 949 648 5200
F 1 949 648 5299
W www.ghd.com

OC LOOP
SEGMENTS O, P, Q
STA 78+00 TO STA 82+00

I-5 & N. FIRESTONE CROSSING

SHEET
C-108
8 OF 15

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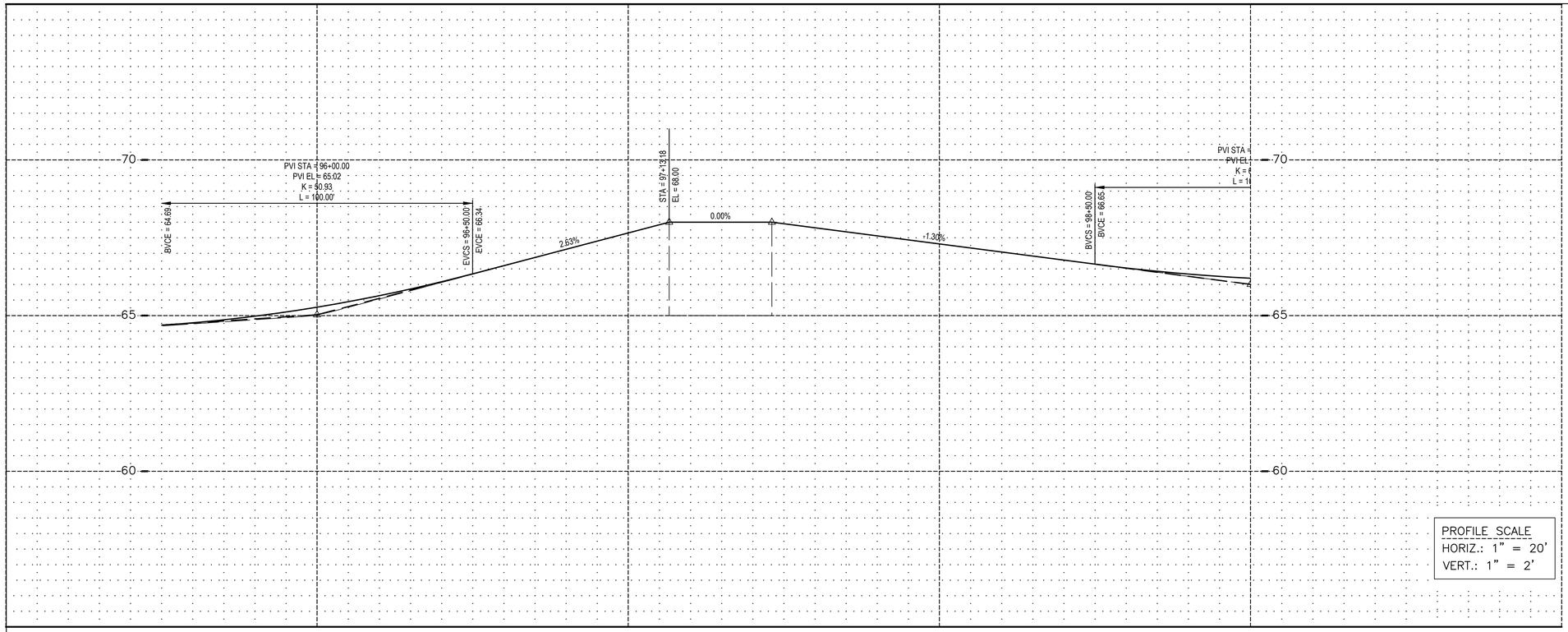
Plot Date: 2 April 2020 - 2:07 PM



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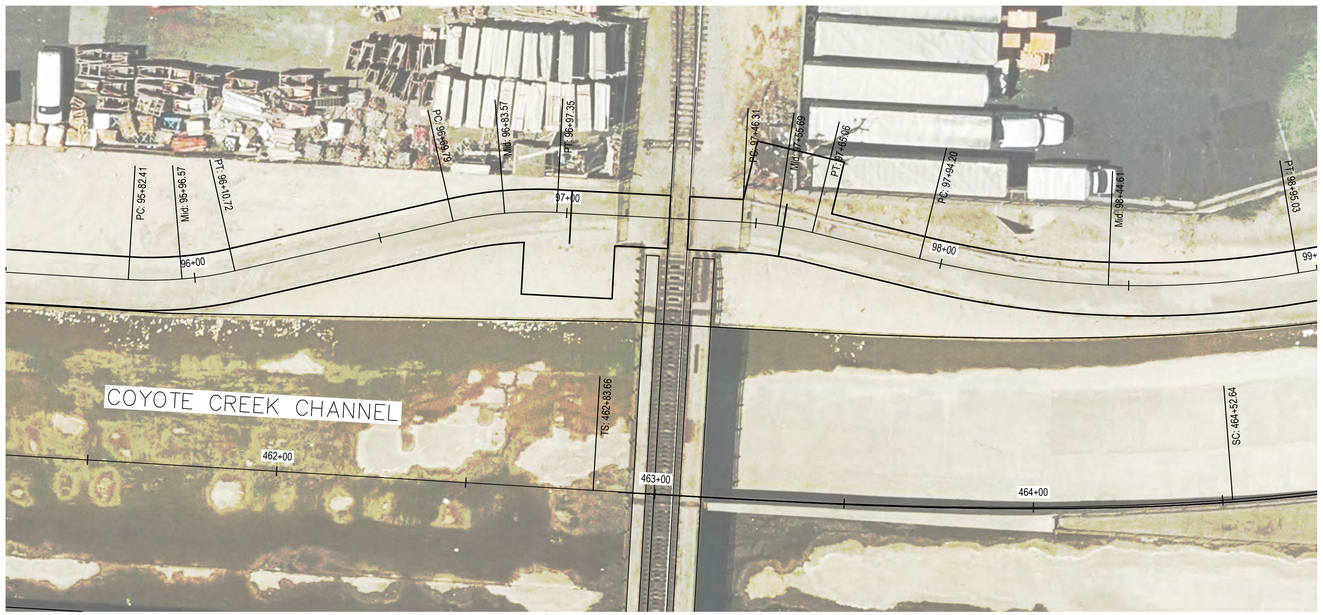

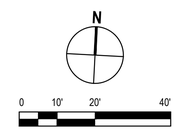

DIGALERT
DIAL TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

DATE

DESIGNED BY: ---
DRAWN BY: ---
CHECKED BY: ---
DRAWING NO: C-110
FILE NAME: 1726772-C-110-BNSFIndLead.dwg
PLOT DATE: ---
SCALE: AS SHOWN

County of Orange
OC PublicWorks

PREPARED BY:
GHD Inc.
320 Goddard Way Suite 200
Irvine California 92618 USA
T 1 949 848 5200
F 1 949 848 5289
W www.ghd.com

SEGMENTS O, P, Q
STA 95+50 TO STA 99+00

BNSF INDUSTRIAL LEAD AT-GRADE CROSSING

SHEET
C-110
10 OF 15

Plot Date: 9 April 2020 - 4:28 PM
Plotted By: Erica Hall
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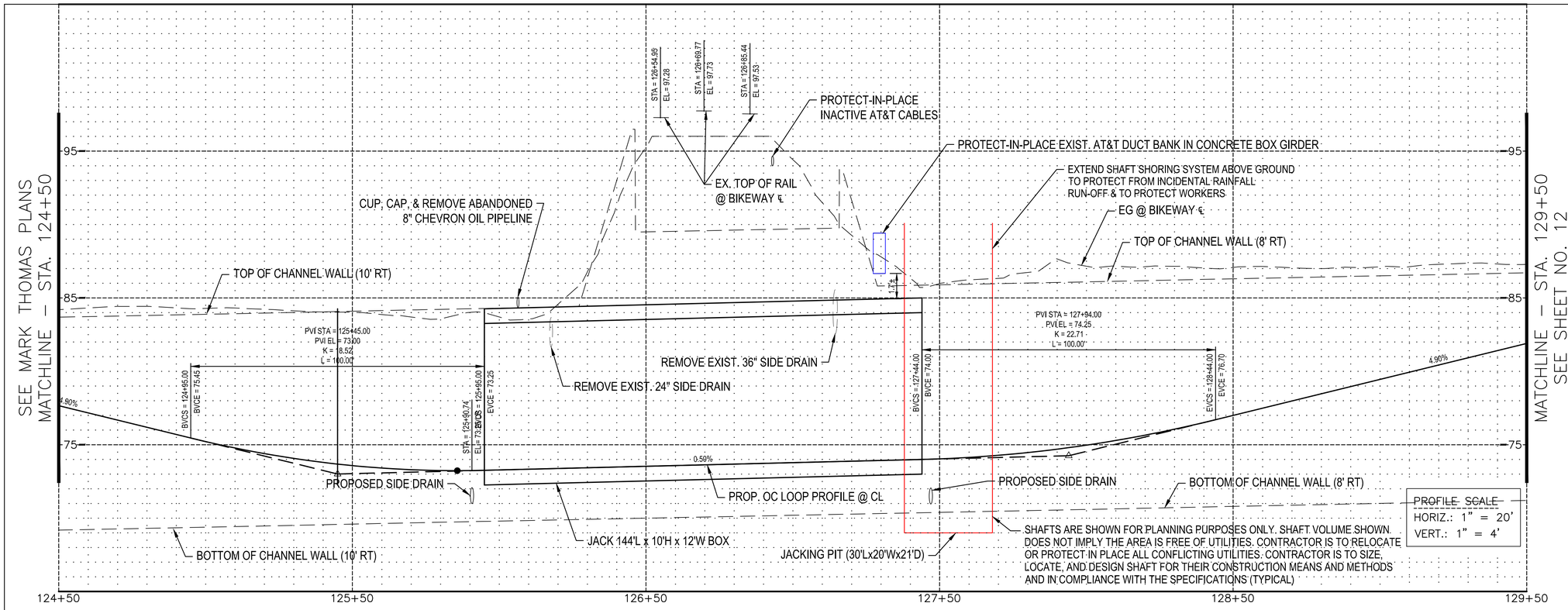

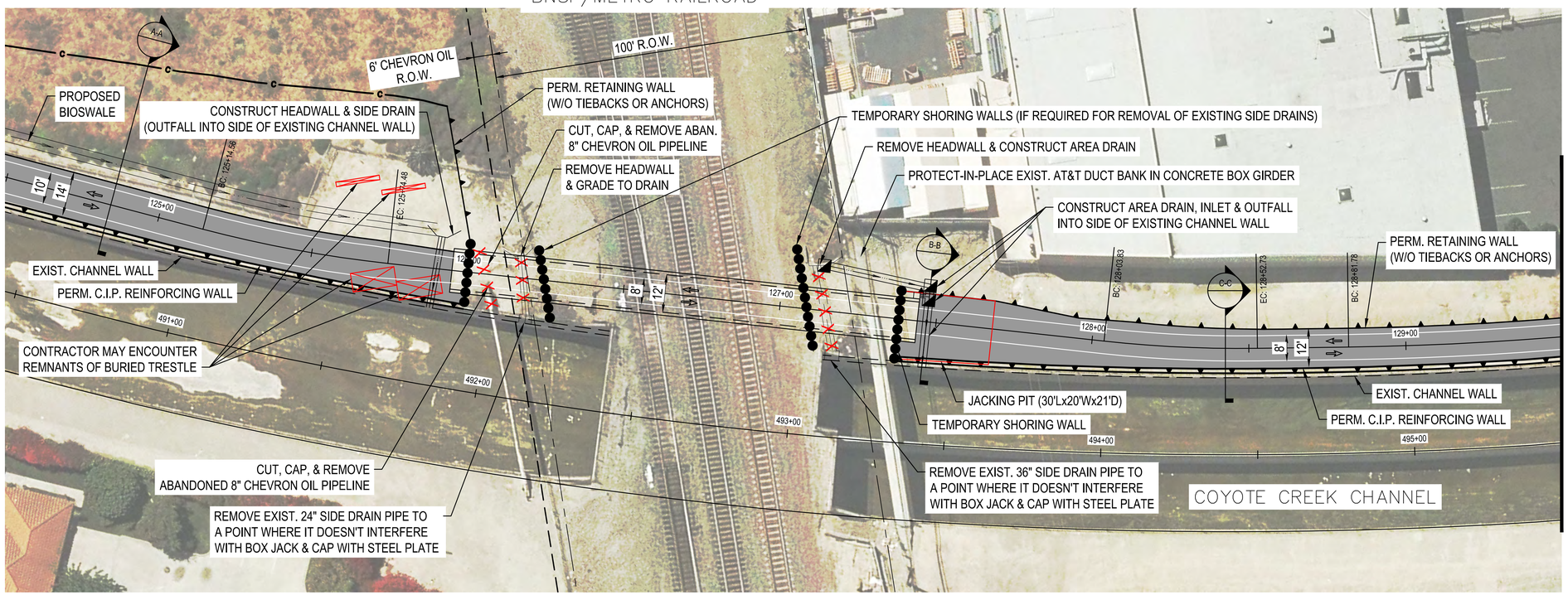

DIGALERT
DIAL TOLL FREE
811
AT LEAST TWO DAYS
BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

COUNTY OF ORANGE
CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NO: C-111
FILE NAME: 112907724DC-Com-BNSF.dwg
PLOT DATE: ####
SCALE: AS SHOWN

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F 1 949 648 5299
W www.ghd.com

OC LOOP
SEGMENTS O, P, Q
STA 124+50 TO STA 129+50

BNSF/METROLINK BOX-JACK UNDERCROSSING

SHEET
C-111
11 OF 15

Filename: N:\US\Irvine\Projects\61\11290772\Digital_Design\ACAD 2018\Civil 3D\112907724DC-Com-BNSF.dwg
Plotted By: Erika Hall
Plot Date: 3 April 2020 - 8:07 AM

0 20' 40' 80'

DIGALERT
DIAL TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

COUNTY OF ORANGE CALIFORNIA

MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

DATE

DESIGNED BY: ---
DRAWN BY: ---
CHECKED BY: ---
DRAWING NO: C-113
FILE NAME: 11260772-Fg-StageRd-Prelim.dwg
PLOT DATE: ####
SCALE: AS SHOWN

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OC LOOP
SEGMENTS O, P, Q
STAGE RD. CROSSING

ALTERNATIVE 2

SHEET
2
2 OF 2

Plot Date: 2 April 2020 - 11:26 AM
Plotted By: Myung Choo
Filename: N:\USIrvine\Projects\56\11126677\Digital_Design\ACAD 2018\Figures\11260772-Fg-StageRd-Prelim.dwg

APPENDIX D

OC LOOP JURISDICTIONAL AREAS

MAPBOOK

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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, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

May 04, 2020

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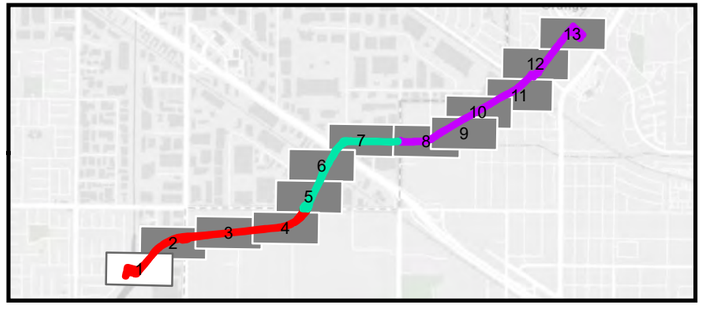

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 1 of 13

UltraSystems
environmental • management • planning

VALLEY VIEW ST

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.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, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

May 04, 2020

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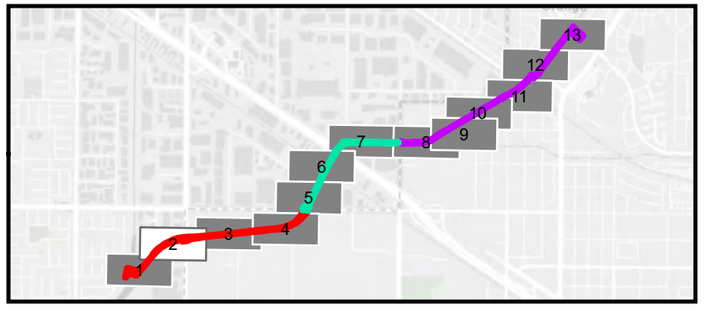

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 2 of 13

UltraSystems
environmental • management • planning

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.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, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

May 04, 2020

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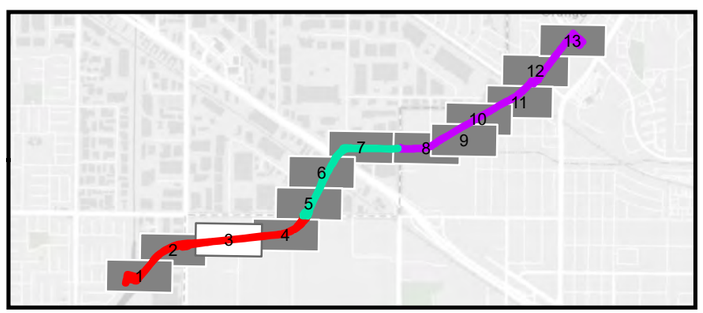

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 3 of 13

UltraSystems
environmental • management • planning

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.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, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

May 04, 2020

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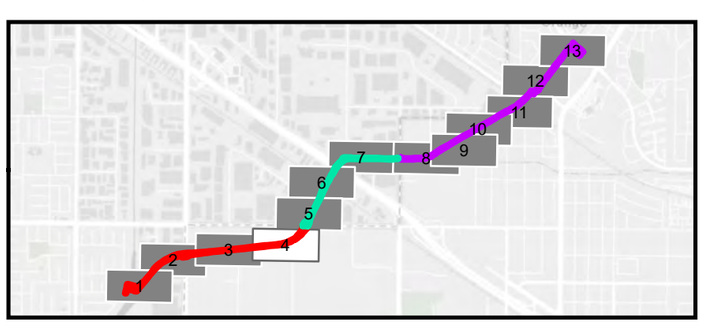

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 4 of 13

UltraSystems
environmental • management • planning

ARTESIA BLVD

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.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, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

May 04, 2020

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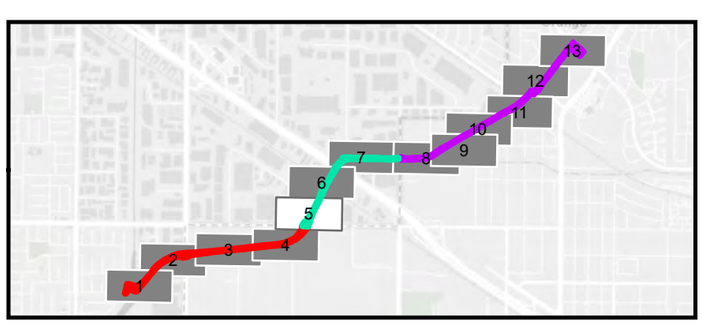

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 5 of 13

UltraSystems
environmental • management • planning

Santa Ana Fwy

S Firestone Blvd

N Firestone Blvd

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.mxd

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May 04, 2020

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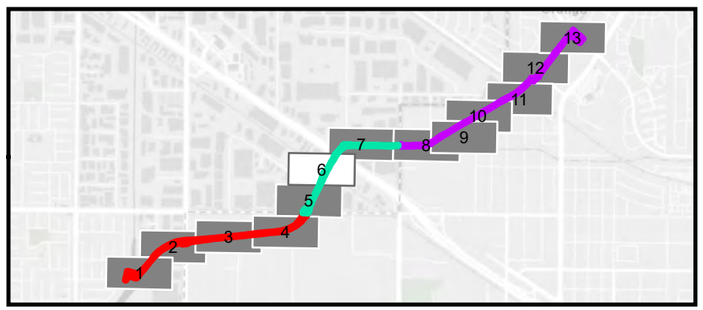

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 6 of 13

UltraSystems
environmental • management • planning

Santa Ana Fwy

S Firestone Blvd

N Firestone Blvd

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.mxd

May 04, 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, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

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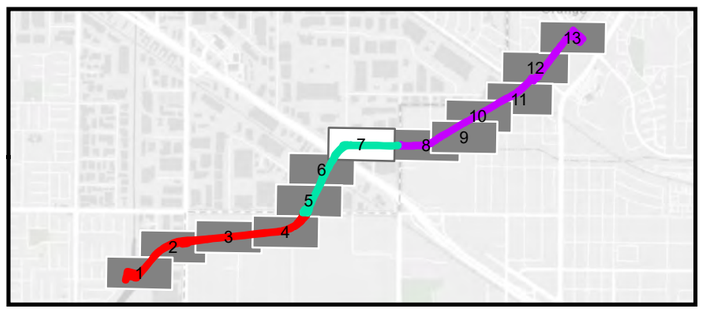


Legend

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

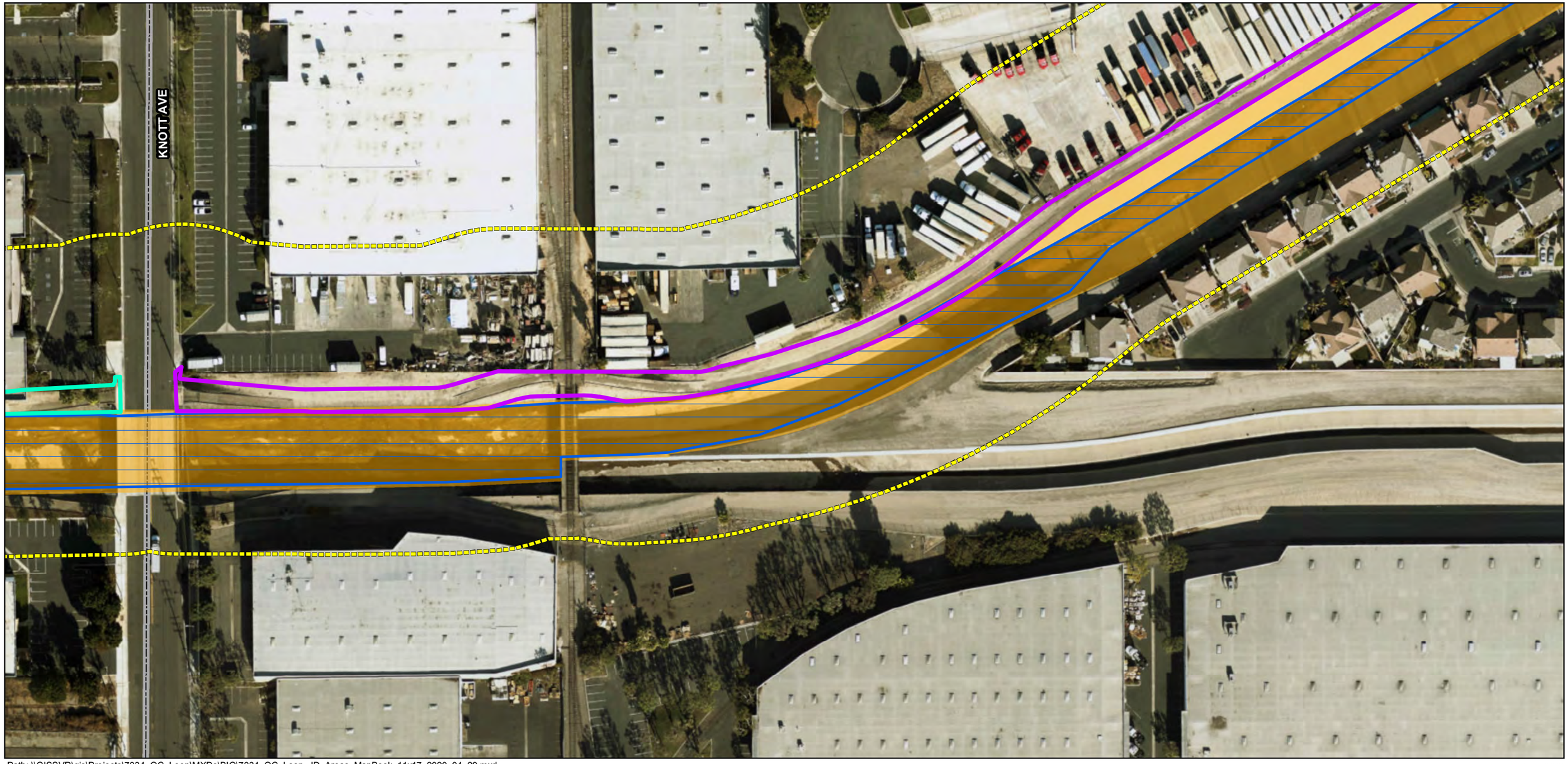
OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 7 of 13

UltraSystems
environmental • management • planning



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May 04, 2020

N

Scale: 1:45,000

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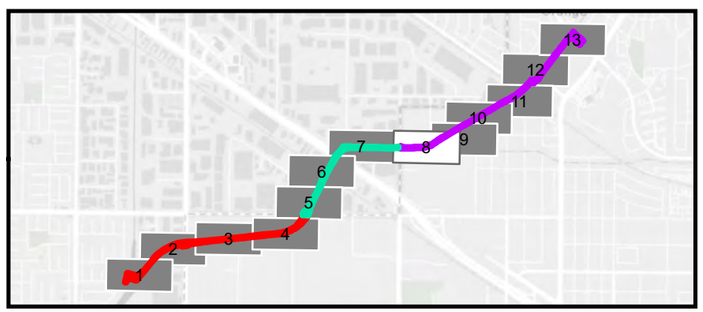

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 8 of 13

UltraSystems
environmental • management • planning

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.mxd

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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, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

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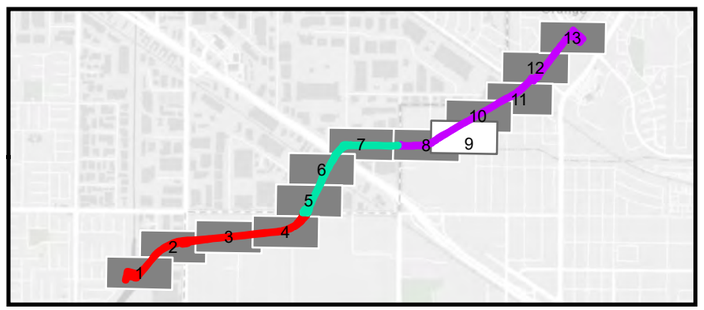

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 9 of 13

UltraSystems
environmental • management • planning

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.mxd

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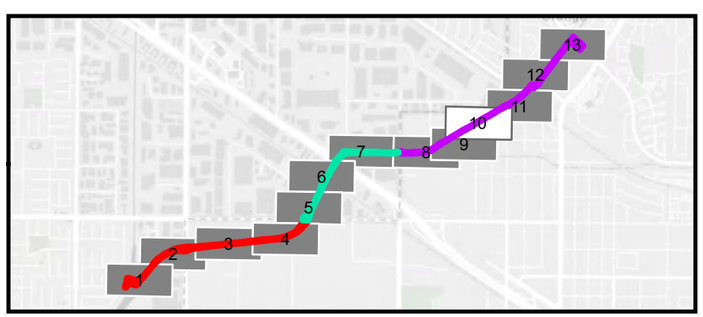

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 10 of 13

UltraSystems
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Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.mxd

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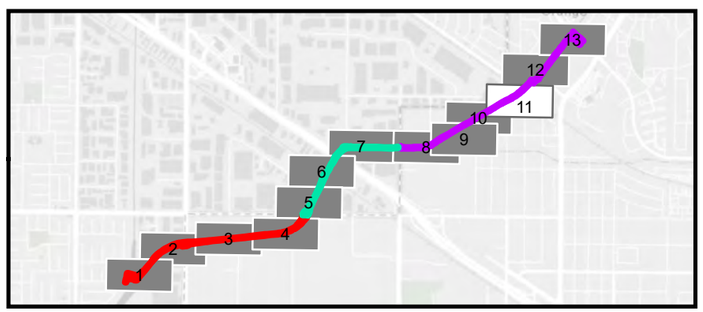

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 11 of 13

UltraSystems
environmental • management • planning

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.mxd

May 04, 2020

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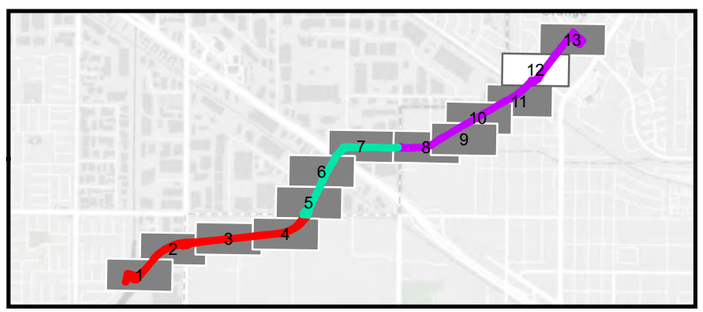

Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

Map 12 of 13

UltraSystems
environmental • management • planning

LA MIRADA BLVD

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\BIO\7034_OC_Loop_JD_Areas_MapBook_11x17_2020_04_29.mxd

May 04, 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, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

N

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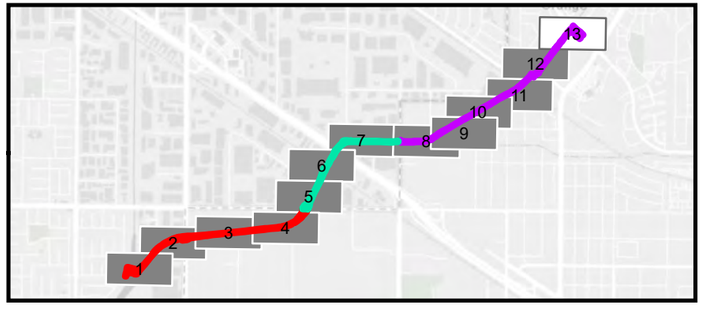


Legend

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

OC Loop
Segments O, P, and Q

Jurisdictional Areas

Appendix D

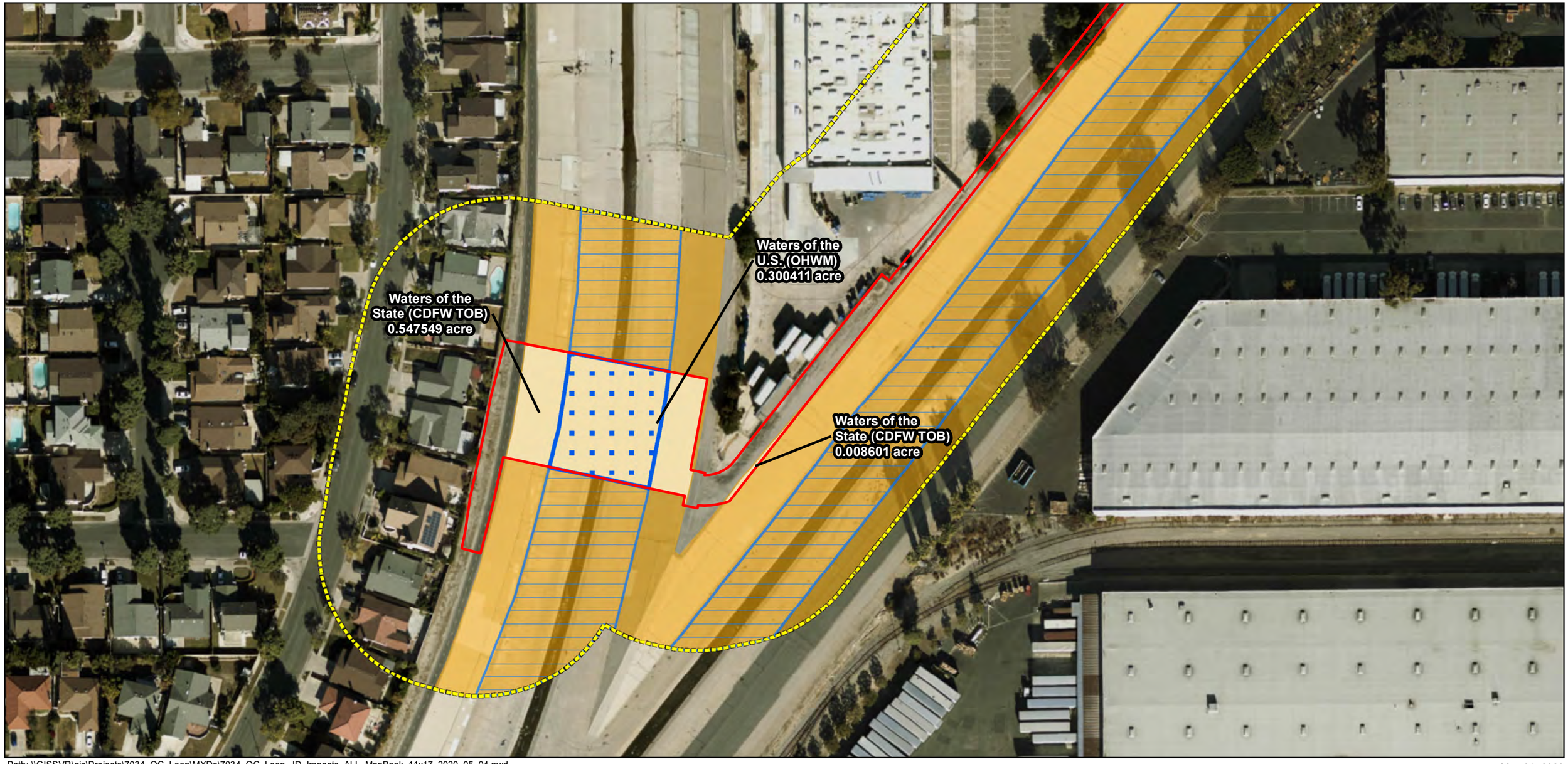
Map 13 of 13

UltraSystems
environmental • management • planning

APPENDIX E

OC LOOP IMPACTS TO JURISDICTIONAL WATERS

MAPBOOK



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May 04, 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, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

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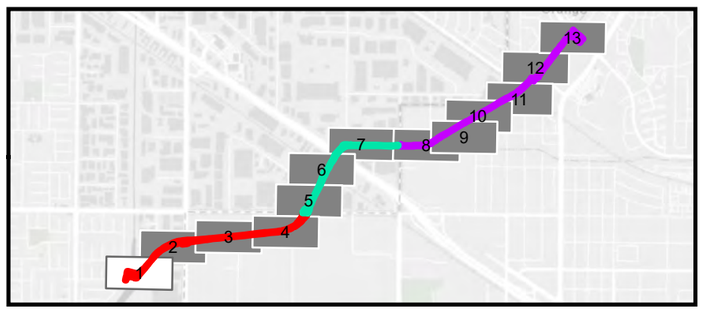

Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 1 of 13

UltraSystems
environmental • management • planning

Waters of the State (CDFW TOB) 0.512732 acre

Waters of the U.S. (OHWM) 0.051508 acre

VALLEY VIEW ST

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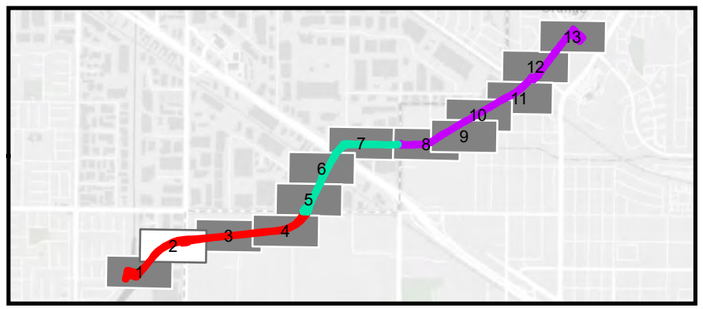

Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 2 of 13

UltraSystems
environmental • management • planning

Waters of the State (CDFW TOB) 0.512732 acre See Map 2

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_JD_Impacts_ALL_MapBook_11x17_2020_05_04.mxd

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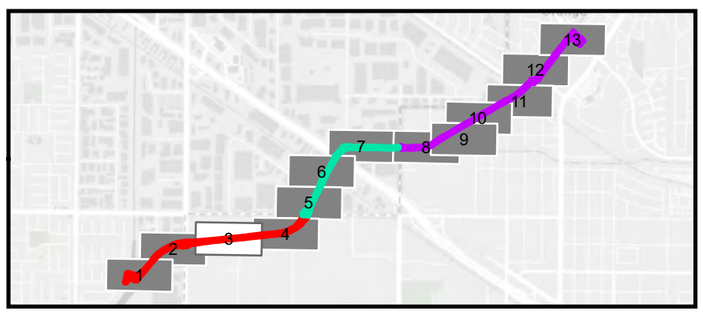


Legend

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

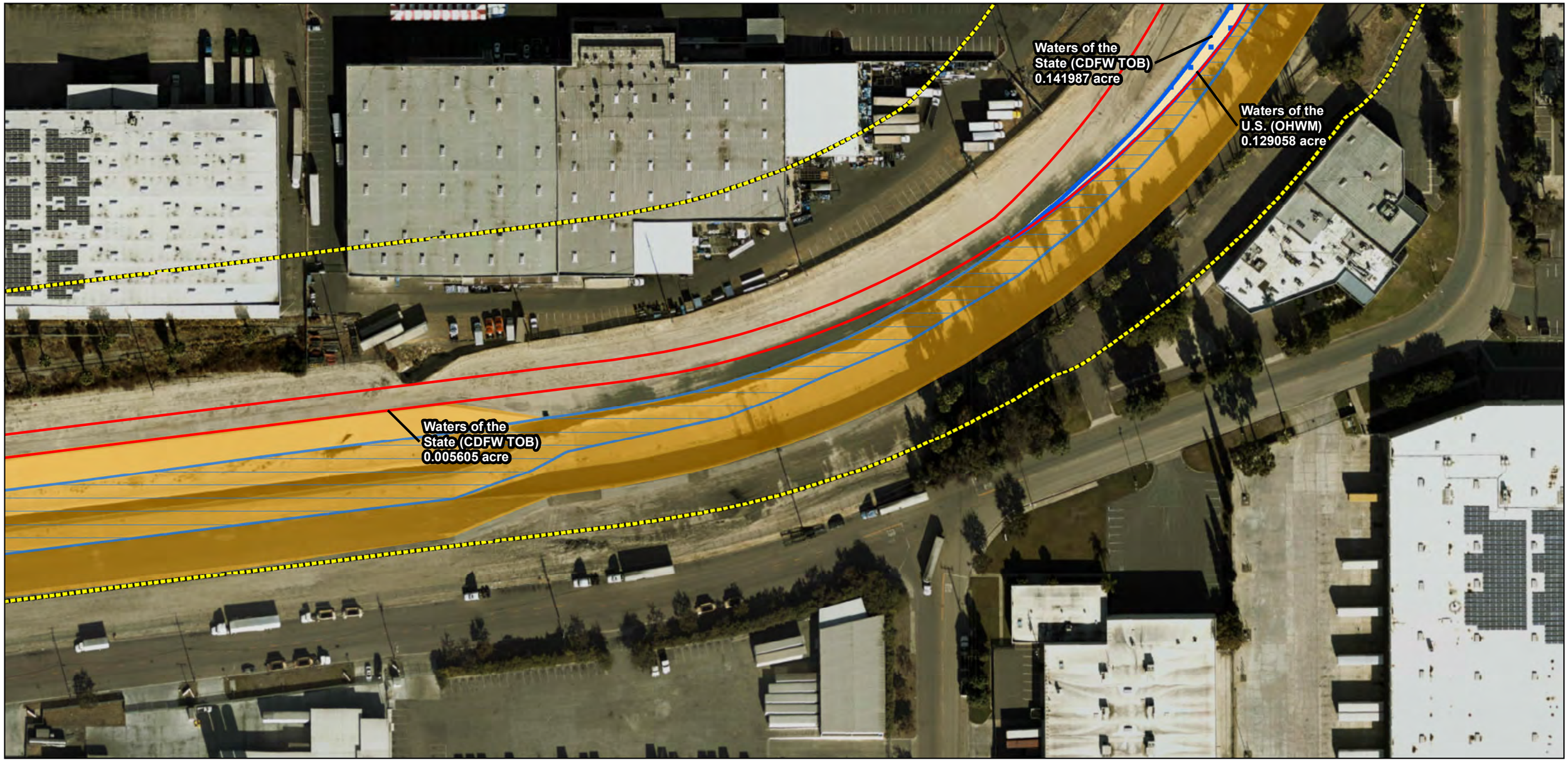
OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 3 of 13

UltraSystems environmental • management • planning



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N

Scale: 1:1,200

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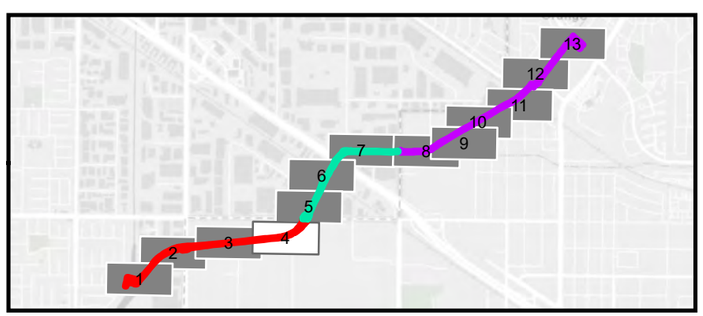

Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 4 of 13

UltraSystems
environmental • management • planning

Waters of the U.S. (OHWM) 0.053989

Waters of the State (CDFW TOB) 0.054338 acre

ARTESIA BLVD

Waters of the State (CDFW TOB) 0.141987 acre See Map 4

Waters of the U.S. (OHWM) 0.129058 acre See Map 4

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May 04, 2020

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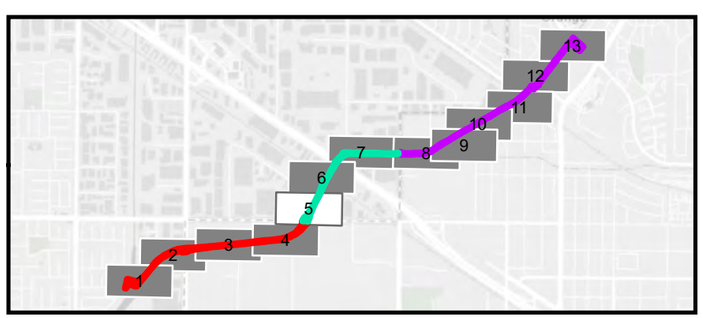

Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 5 of 13

UltraSystems environmental•management•planning

No jurisdictional impacts in this area.

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_JD_Impacts_ALL_MapBook_11x17_2020_05_04.mxd

May 04, 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, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

N

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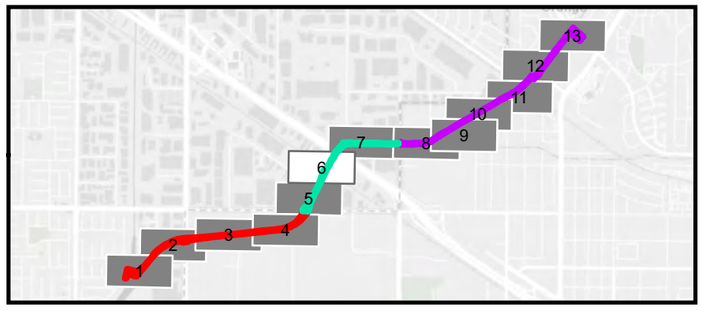

Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 6 of 13

UltraSystems
environmental • management • planning

No jurisdictional impacts in this area.

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_JD_Impacts_ALL_MapBook_11x17_2020_05_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, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

May 04, 2020

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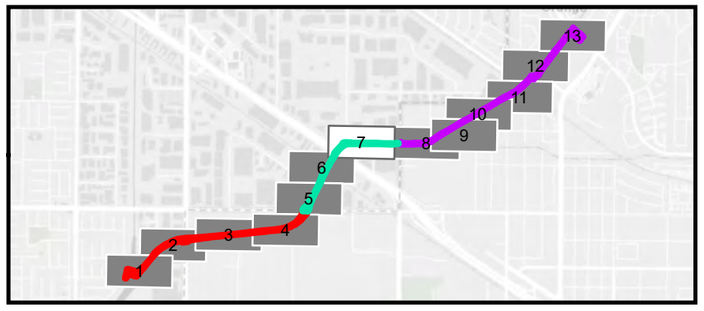
Scale: 1:1,200

0 50 100 Feet

0 15 30 Meters



Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 7 of 13

UltraSystems
environmental • management • planning

Waters of the State (CDFW TOB) 0.000155 acre

Waters of the State (CDFW TOB) 0.018005 acre

Waters of the U.S. (OHWM) 0.004545 acre

Waters of the U.S. (OHWM) 0.00037 acre

Waters of the U.S. (OHWM) 0.004509 acre

Waters of the State (CDFW TOB) 0.080769 acre

Waters of the State (CDFW TOB) 0.000005 acre

Waters of the State (CDFW TOB) 0.003054 acre

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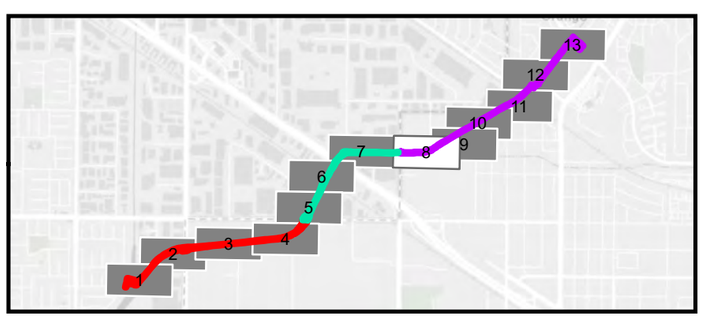


Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 8 of 13

UltraSystems
environmental • management • planning

Waters of the State (CDFW TOB) 0.055309 acre

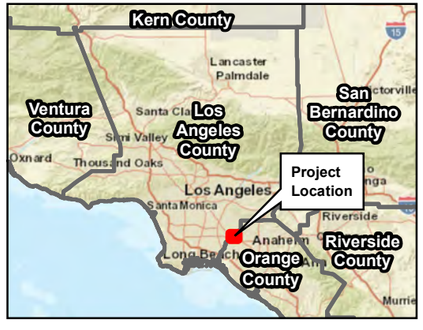
Waters of the U.S. (OHWM) 0.004509 acre

Waters of the State (CDFW TOB) 0.080769 acre

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_JD_Impacts_ALL_MapBook_11x17_2020_05_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, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; Orange County, 2018; Mark Thomas, July 2018; UltraSystems Environmental, Inc. 2020

May 04, 2020



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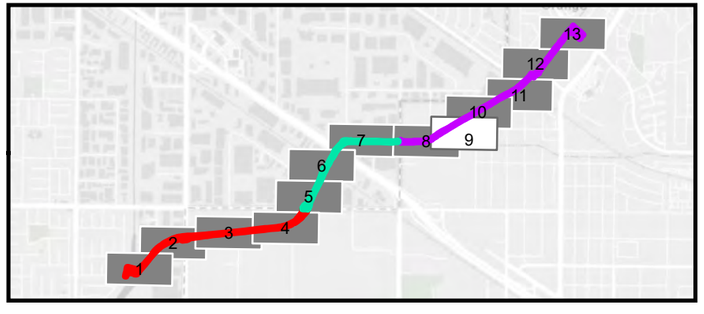

Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 9 of 13

UltraSystems
environmental • management • planning

Waters of the State (CDFW TOB) 0.055309 acre

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_JD_Impacts_ALL_MapBook_11x17_2020_05_04.mxd

May 04, 2020

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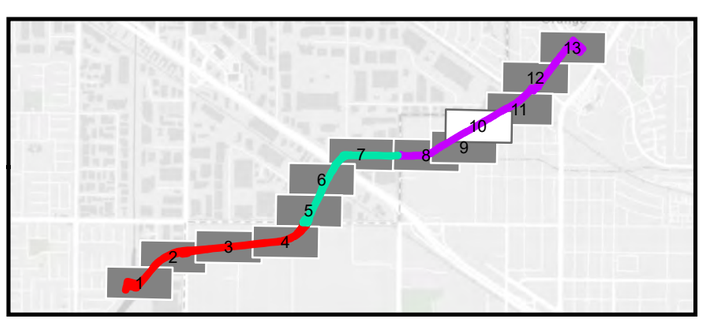

Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 10 of 13

UltraSystems environmental•management•planning

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_JD_Impacts_ALL_MapBook_11x17_2020_05_04.mxd

May 04, 2020

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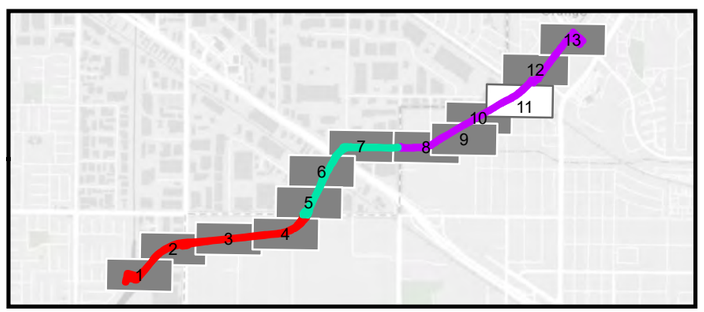

Legend

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

OC Loop
Segments O, P, and Q

Impacts to
Jurisdictional Waters

Appendix E

Map 11 of 13

UltraSystems
environmental • management • planning

Path: \\GISSVR\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_JD_Impacts_ALL_MapBook_11x17_2020_05_04.mxd

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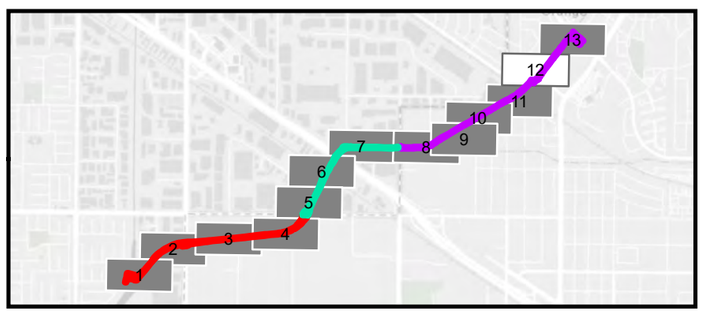

Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 12 of 13

UltraSystems
environmental • management • planning

Waters of the U.S. (OHWM) 0.0000002 acre

Waters of the State (CDFW TOB) 0.0003 acre

Waters of the State (CDFW TOB) 0.103259 acre

LA MIRADA BLVD

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May 04, 2020

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Scale: 1:1,200

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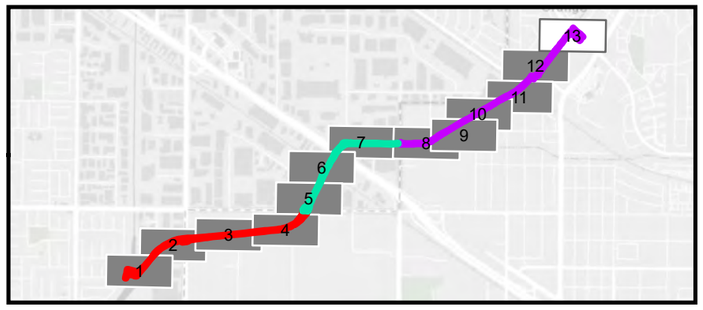

Legend

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

OC Loop
Segments O, P, and Q

Impacts to Jurisdictional Waters

Appendix E

Map 13 of 13

UltraSystems
environmental • management • planning

APPENDIX F

REPRESENTATIVE SITE PHOTOGRAPHS

Photo 1. Segment O. Confluence of Coyote Creek North Fork (left) and Coyote Creek (right). The pedestrian bridge would cross Coyote Creek North Fork at the top of the dividing berm.

Photo 2. Segment O. Coyote Creek west of Valley View Boulevard. Water is present in the low-flow channel; in many areas of the channel the OHWM was determined by water staining (visible center left). View is upstream, looking east at the Valley View undercrossing.

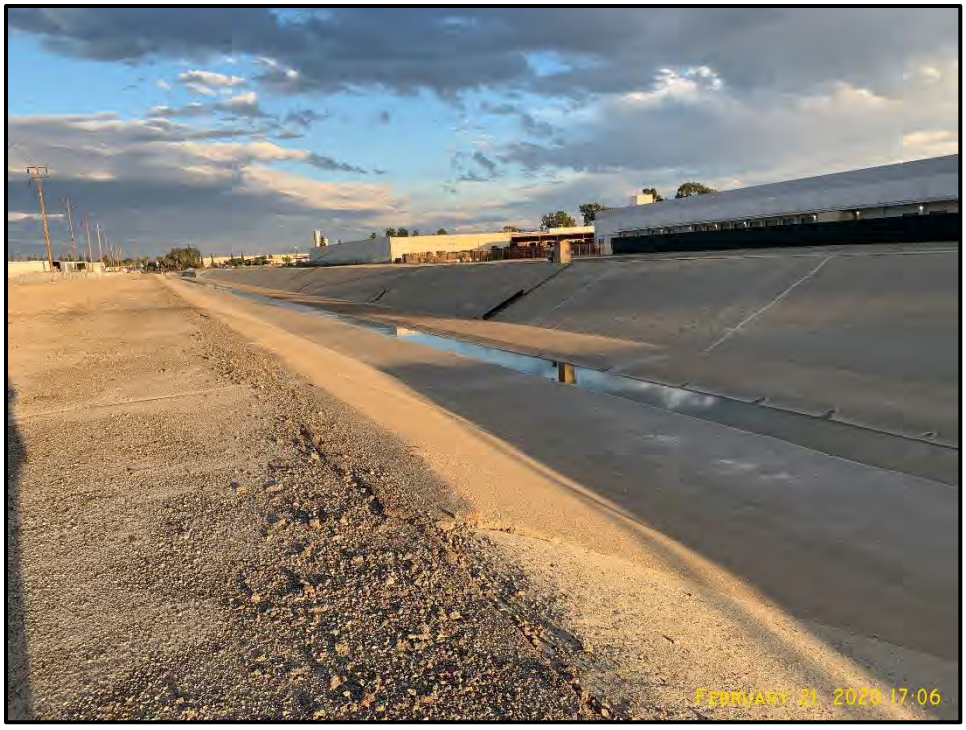

Photo 3. Segment O. Coyote Creek east of Valley View Boulevard. Water was present in the low-flow channel at the time of the survey. View is from top of bank looking upstream (east).

Photo 4. Segment P. Coyote Creek, at the southwest edge of the Southern Pacific Railroad undercrossing. View is upstream looking northeast.

Photo 5. Segment P. Coyote Creek. View is from Firestone Boulevard looking upstream (north) toward the Interstate 5 undercrossings.

Photo 6. Segment P. Coyote Creek, beneath the Trojan Way undercrossing. View is downstream (southwest) toward the Interstate 5 and Firestone Boulevard undercrossings.

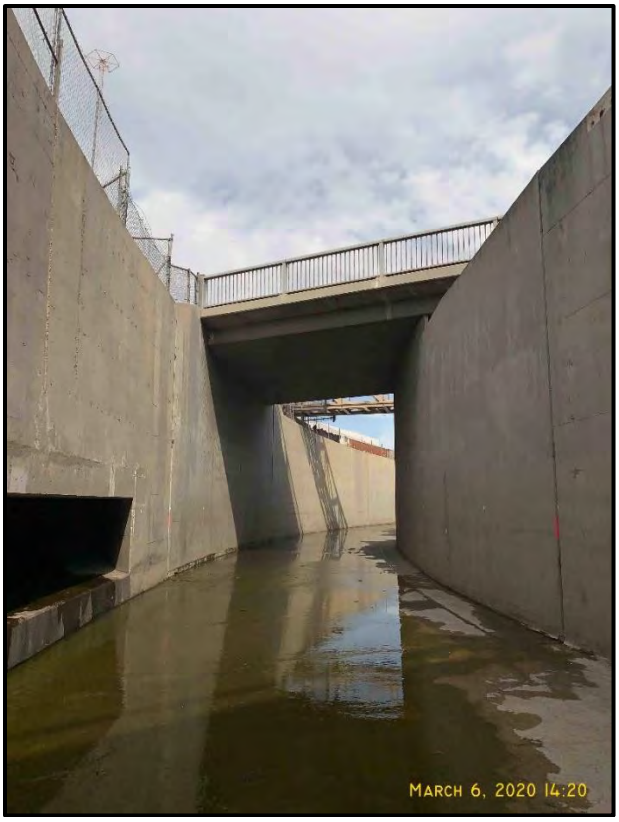

Photo 7. Segment P. Coyote Creek, west of Trojan Way. View is upstream (northeast) toward Trojan Way and Chevron and Crimson Pipelines. The trail will be located on the surface at this location, and this undercrossing and the pipelines will be avoided.

Photo 8. Segment P. Coyote Creek at Osmond Avenue, west of Knott Avenue. View is downstream (west) toward Trojan Way. The NWI described this portion of Coyote Creek as a palustrine emergent (PEM) wetland (see Section 6.1).

Photo 9. Segment Q. Coyote Creek, north of the Brea Creek confluence. View is upstream (east).

Photo 10. Segment Q. Coyote Creek, looking upstream (northeast) toward the northern terminus of the project.

APPENDIX G

NOISE MEASUREMENT DATA

UltraSystems
environmental | management | planning

16431 Scientific Way
Irvine, CA 92618
949.788.4900

Noise Measurement Report Form – Part A

Date: 2/18/20 Day of Week: Tues Time: 7:58 am Project No. 7034

Monitoring Site ID: 1/PA1 & AA1 Monitoring Site Address: 17824 Vierra Ave

Measurement Taken By: Lisa Ahn / Victor Paitimusa of UltraSystems Environmental

Approximate Wind Speed: _____ mph [km/hr] Approximate Wind Direction: From the _____

Approximate distance of sound level meter from receptor location: 20 ft

Approximate distance of sound level meter from construction site: _____
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☒ Residential ☐ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: _____

Meter Setting: ☒ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 7:58 am Measurement End Time: 8:13 am

Total Measurement Time: 15 mins Session File Name (e.g., S012): S157

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results (dB):

Measurement Type	Measured Levels	Noise Criteria Threshold	Exceedance
CALIBRATION	Pre: 114.0 Post: 114.0	n/a	n/a
$L_{eq\ (h)}$	Slow: 51.4 Fast:		
L_{max}	Slow: 58.1 Fast:	n/a	n/a
L_{90}	Slow: 49.5 Fast:	n/a	n/a

Field Notes:

1. Meter 20 ft away from 5 ft wall
2. _____
3. _____

Noise Monitor's Signature: _____ Date: 2/18/20

UltraSystems
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16431 Scientific Way
Irvine, CA 92618
949.788.4900

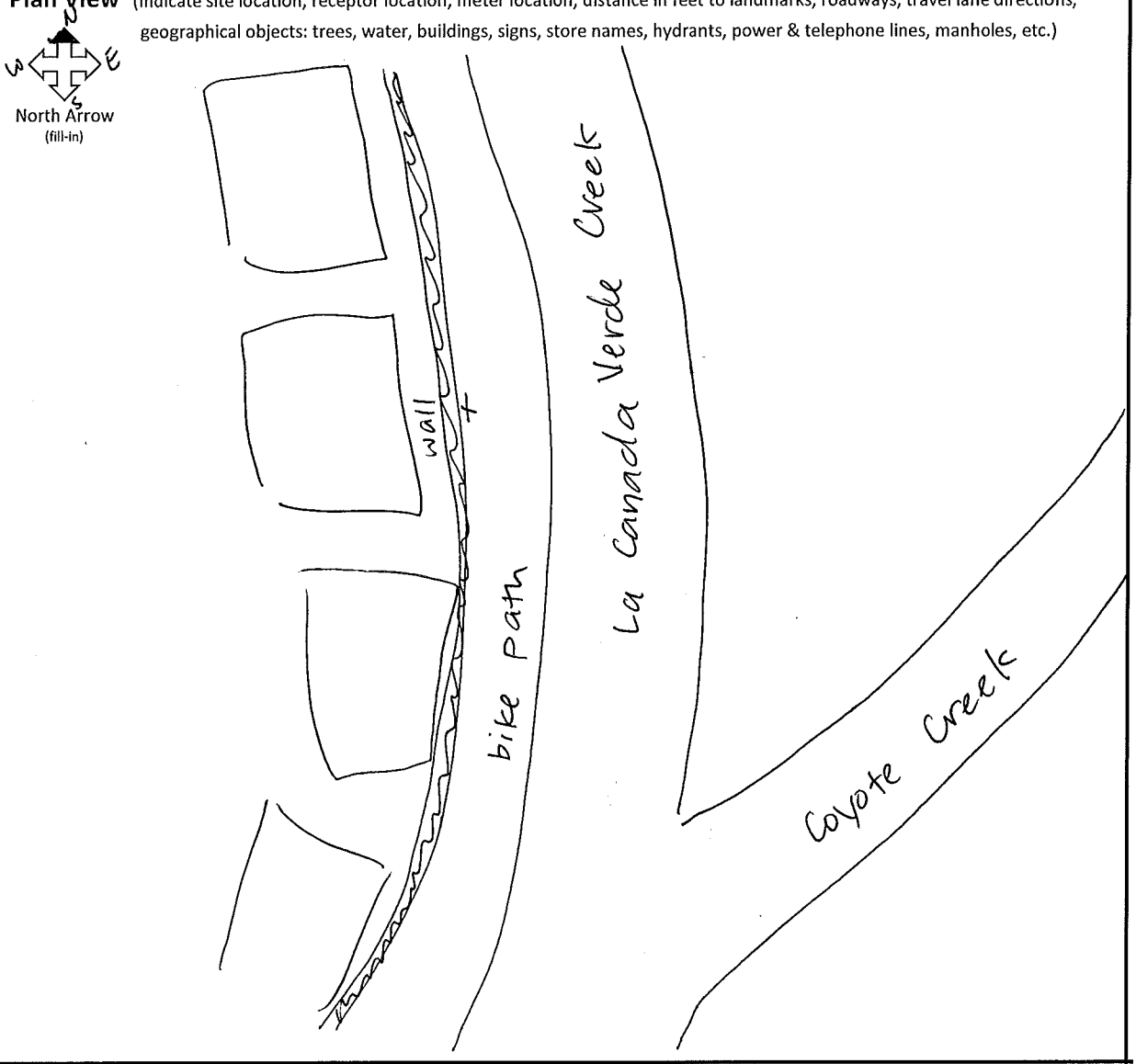
Noise Measurement Report Form – Part B

Date: 2/18/20 Day of Week: Tues Time: 7:58 am

Monitoring Site ID: 1 Monitoring Site Address: 17824 Vierra Ave

Site Map

Plan View (Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View (Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)

Latitude: N 33.86911°	Longitude: W 118.03347°	Elevation: 60 ft

Session Report

2/19/2020

Information Panel

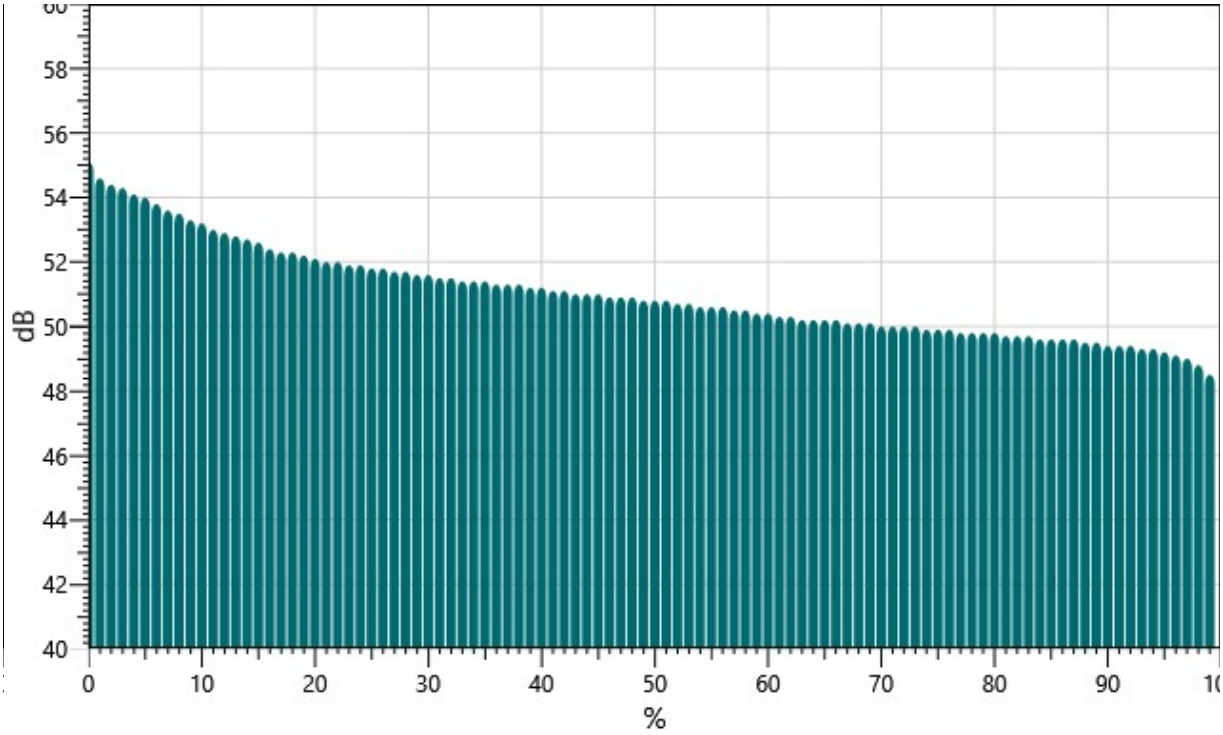
Name	S157_BLH080004_19022020_073656
Start Time	2/18/2020 7:59:55 AM
Stop Time	2/18/2020 8:14:55 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	51.4 dB	L90	1	49.5 dB
Lmax	1	58.1 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Lmax	2	66.4 dB	Lmin	2	48 dB
Leq	2	51.4 dB			
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

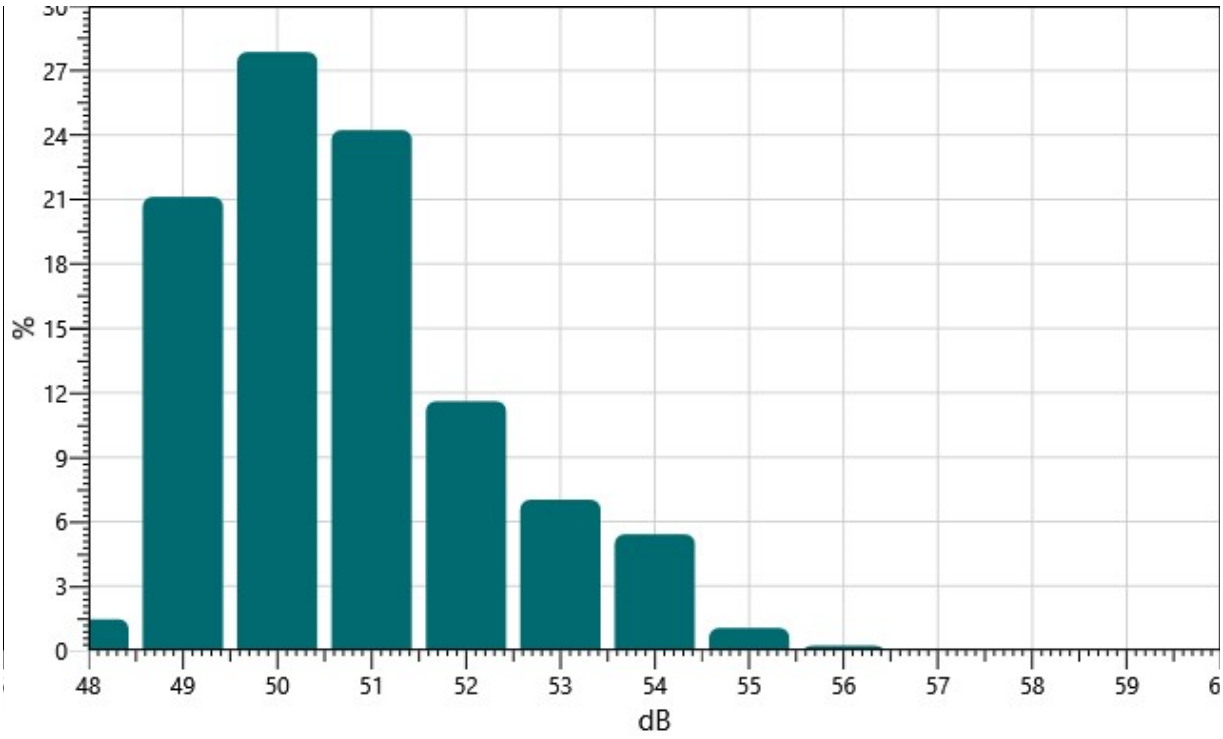
Exceedance Chart

S157_BLH080004_19022020_073656: Exceedance Chart



Statistics Chart

S157_BLH080004_19022020_073656: Statistics Chart



Statistics Table

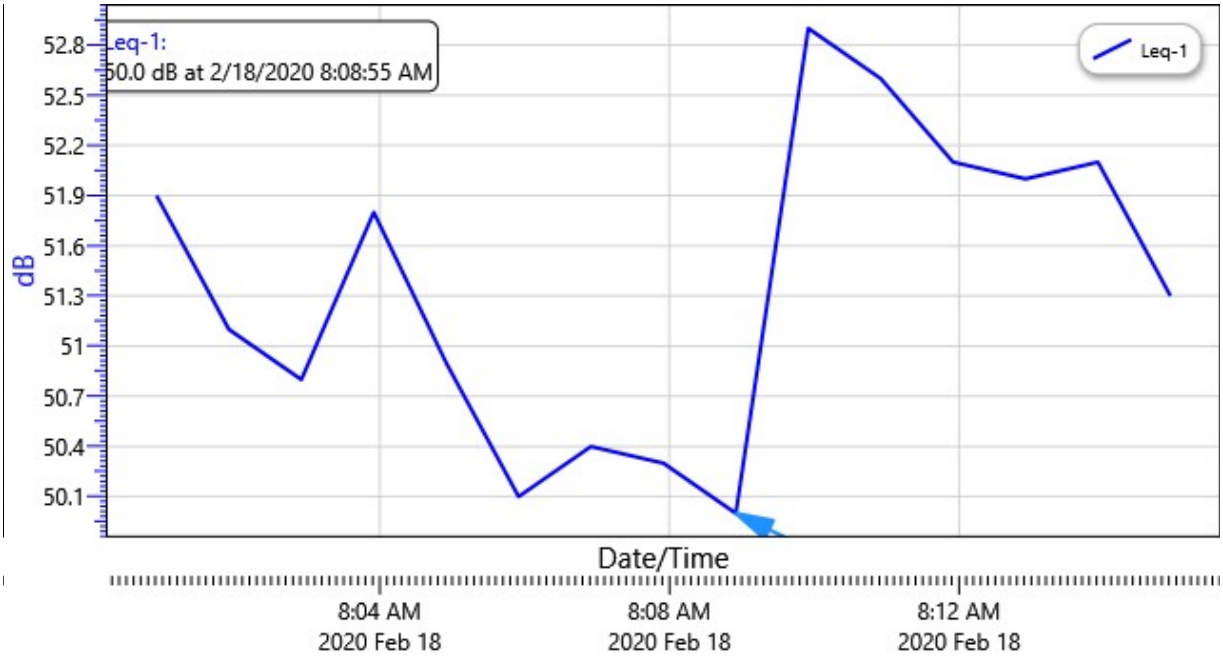
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
48:	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.16	0.58	0.59	1.45
49:	0.43	0.65	0.90	1.48	1.88	2.45	2.42	3.60	3.49	3.80	21.11
50:	3.32	3.17	3.75	3.24	2.38	2.01	2.47	2.44	2.47	2.62	27.86
51:	2.67	2.96	2.01	2.70	2.73	2.54	2.33	2.06	2.14	2.09	24.23
52:	1.86	1.55	1.30	1.31	1.36	1.06	0.83	0.85	0.71	0.77	11.60
53:	0.93	0.85	0.74	0.71	0.78	0.64	0.59	0.62	0.56	0.61	7.02
54:	0.68	0.71	0.52	0.73	0.74	0.76	0.52	0.29	0.31	0.15	5.41
55:	0.12	0.11	0.10	0.10	0.12	0.11	0.09	0.10	0.11	0.09	1.05
56:	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.23
57:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
58:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01

Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		55.1	54.6	54.4	54.3	54.1	54.0	53.8	53.6	53.5
10%:	53.3	53.2	53.0	52.9	52.8	52.7	52.6	52.4	52.3	52.3
20%:	52.2	52.1	52.0	52.0	51.9	51.9	51.8	51.8	51.7	51.7
30%:	51.6	51.6	51.5	51.5	51.4	51.4	51.4	51.3	51.3	51.3
40%:	51.2	51.2	51.1	51.1	51.0	51.0	51.0	50.9	50.9	50.9
50%:	50.8	50.8	50.8	50.7	50.7	50.6	50.6	50.6	50.5	50.5
60%:	50.4	50.4	50.3	50.3	50.2	50.2	50.2	50.2	50.1	50.1
70%:	50.1	50.0	50.0	50.0	50.0	49.9	49.9	49.9	49.8	49.8
80%:	49.8	49.8	49.7	49.7	49.7	49.6	49.6	49.6	49.6	49.5
90%:	49.5	49.4	49.4	49.4	49.3	49.3	49.2	49.1	49.0	48.8
100%:	48.5									

Logged Data Chart

S157_BLH080004_19022020_073656: Logged Data Chart



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Irvine, CA 92618
949.788.4900

Noise Measurement Report Form – Part A

Date: 2/18/20 Day of Week: Tues Time: 9:36am Project No. 7034

Monitoring Site ID: 2/PA2 Monitoring Site Address: 7171 Kensington

Measurement Taken By: Lisa Ann / Victor Paitimusa of UltraSystems Environmental

Approximate Wind Speed: _____mph [km/hr] Approximate Wind Direction: From the _____

Approximate distance of sound level meter from receptor location: ~ 60 ft

Approximate distance of sound level meter from construction site: _____
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☒ Residential ☐ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: _____

Meter Setting: ☒ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 9:36 am Measurement End Time: 9:51 am

Total Measurement Time: 15 mins Session File Name (e.g., S012): S158

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results (dB):

Measurement Type	Measured Levels	Noise Criteria Threshold	Exceedance
CALIBRATION	Pre: 114.0 Post: 114.0	n/a	n/a
$L_{eq\ (h)}$	Slow: 53.5 Fast:		
L_{max}	Slow: 68.9 Fast:	n/a	n/a
L_{90}	Slow: 43.6 Fast:	n/a	n/a

Field Notes:

1. Measurement taken ~~opposite~~ on north side of Coyote Creek. (Unable to access south side)
2. Brick wall between homes and creek.
3. Power tools being used in backyard of one of the homes.
4. Walking past meter at minute 12

Noise Monitor's Signature: _____ Date: 2/18/20

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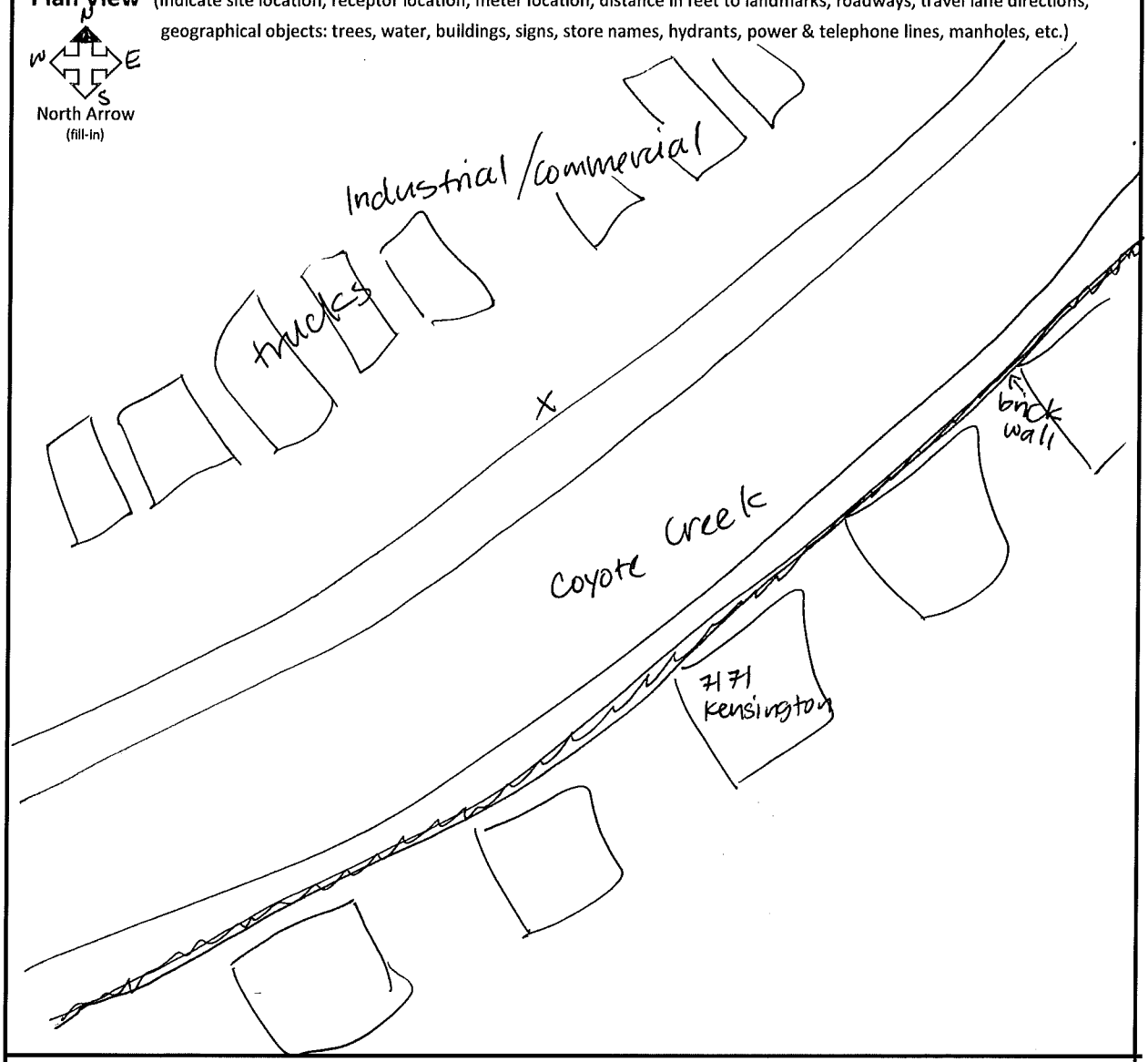
Noise Measurement Report Form – Part B

Date: 2/18/20 Day of Week: Tues Time: 9:36 am

Monitoring Site ID: 2 Monitoring Site Address: 7171 Kensington

Site Map

Plan View (Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View (Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)

Latitude: N 33.87886°	Longitude: W 118.00794°	Elevation: 83 ft

Session Report

2/19/2020

Information Panel

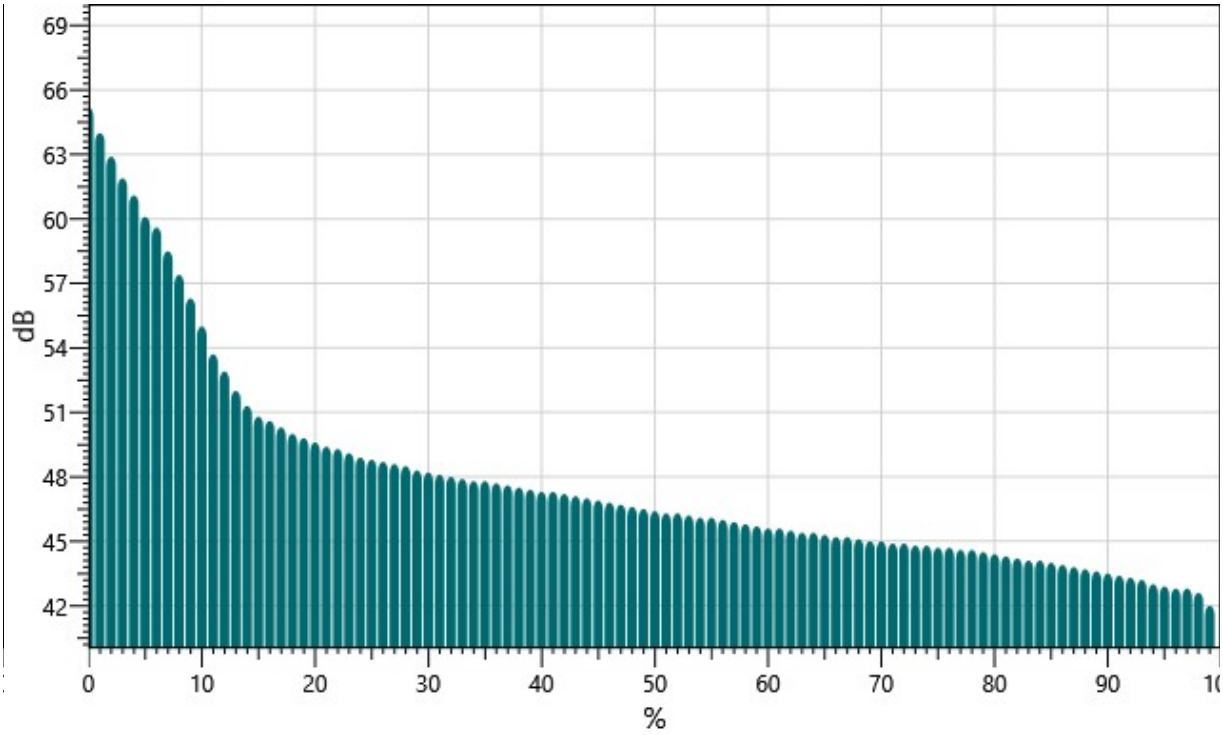
Name	S158_BLH080004_19022020_073658
Start Time	2/18/2020 9:37:27 AM
Stop Time	2/18/2020 9:52:27 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	53.5 dB	L90	1	43.6 dB
Lmax	1	68.9 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Lmax	2	71.3 dB	Lmin	2	41.6 dB
Leq	2	53.4 dB			
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

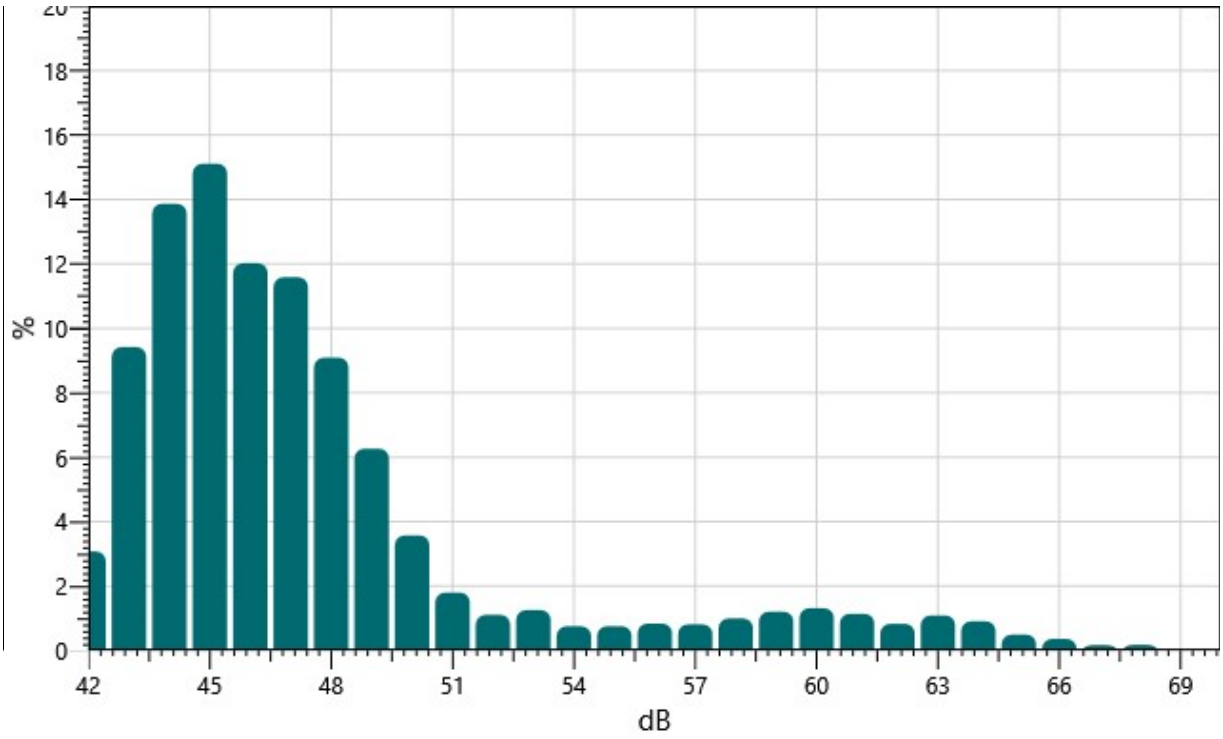
Exceedance Chart

S158_BLH080004_19022020_073658: Exceedance Chart



Statistics Chart

S158_BLH080004_19022020_073658: Statistics Chart



Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
42:	0.00	0.01	0.04	0.03	0.08	0.42	0.34	0.39	0.66	1.11	3.07
43:	1.20	0.82	0.76	0.75	0.91	0.82	0.72	1.02	1.26	1.16	9.42
44:	1.14	1.19	1.21	1.03	1.35	1.18	1.37	1.50	1.85	2.06	13.87
45:	1.98	1.95	1.20	1.57	1.59	1.64	1.45	1.42	1.31	1.01	15.11
46:	1.20	1.23	1.44	1.34	1.60	1.53	0.96	0.90	0.89	0.92	12.02
47:	0.95	1.15	1.21	1.12	1.17	1.12	1.19	1.35	1.10	1.23	11.58
48:	1.24	1.15	0.77	0.88	1.05	0.78	0.77	0.87	0.91	0.67	9.09
49:	0.84	0.61	0.64	0.69	0.80	0.62	0.51	0.54	0.58	0.43	6.27
50:	0.39	0.30	0.37	0.36	0.32	0.37	0.35	0.37	0.40	0.34	3.57
51:	0.27	0.31	0.21	0.18	0.14	0.13	0.16	0.12	0.13	0.14	1.80
52:	0.14	0.13	0.11	0.13	0.09	0.09	0.08	0.12	0.10	0.13	1.11
53:	0.10	0.08	0.11	0.17	0.12	0.14	0.11	0.14	0.17	0.10	1.25
54:	0.13	0.09	0.05	0.07	0.06	0.08	0.10	0.07	0.06	0.05	0.75
55:	0.06	0.09	0.06	0.05	0.06	0.08	0.08	0.07	0.06	0.16	0.76
56:	0.06	0.07	0.09	0.08	0.09	0.08	0.07	0.09	0.11	0.10	0.84
57:	0.06	0.11	0.07	0.13	0.12	0.08	0.08	0.06	0.06	0.06	0.81
58:	0.06	0.07	0.10	0.13	0.13	0.12	0.09	0.09	0.12	0.10	1.00
59:	0.07	0.07	0.07	0.06	0.08	0.12	0.16	0.19	0.19	0.20	1.21
60:	0.20	0.24	0.19	0.17	0.17	0.07	0.10	0.06	0.06	0.05	1.31
61:	0.05	0.08	0.17	0.08	0.16	0.18	0.13	0.12	0.09	0.09	1.14
62:	0.12	0.07	0.08	0.07	0.09	0.08	0.06	0.08	0.07	0.10	0.83
63:	0.20	0.13	0.09	0.07	0.10	0.08	0.11	0.12	0.10	0.09	1.09
64:	0.08	0.09	0.09	0.12	0.11	0.09	0.11	0.09	0.07	0.05	0.91
65:	0.08	0.05	0.03	0.07	0.04	0.03	0.06	0.03	0.04	0.05	0.49
66:	0.09	0.08	0.05	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.36
67:	0.02	0.01	0.03	0.02	0.02	0.01	0.02	0.00	0.01	0.03	0.17
68:	0.02	0.02	0.03	0.05	0.01	0.01	0.01	0.02	0.01	0.01	0.18

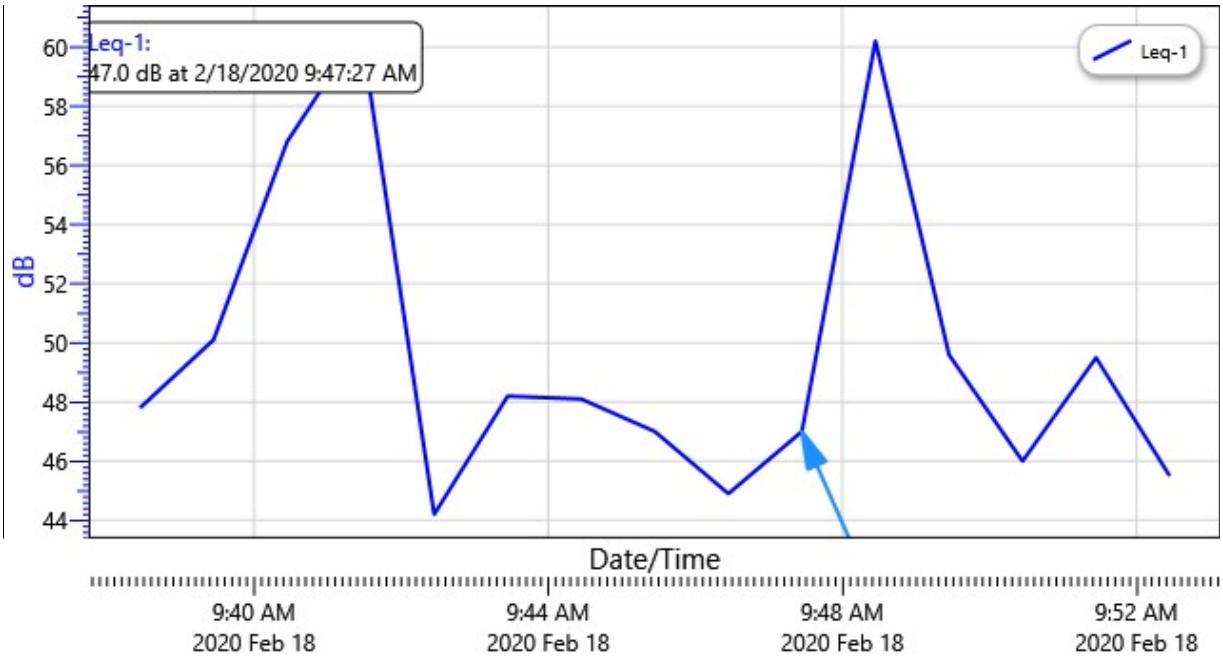
Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		65.2	64.0	62.9	61.9	61.1	60.1	59.6	58.5	57.4
10%:	56.3	55.0	53.7	52.9	52.0	51.3	50.8	50.6	50.3	50.0
20%:	49.8	49.6	49.4	49.3	49.1	48.9	48.8	48.7	48.6	48.5
30%:	48.3	48.2	48.1	48.0	47.9	47.8	47.8	47.7	47.6	47.5

40%:	47.4	47.3	47.3	47.2	47.1	47.0	46.9	46.8	46.7	46.6
50%:	46.5	46.4	46.3	46.3	46.2	46.1	46.1	46.0	45.9	45.8
60%:	45.7	45.6	45.6	45.5	45.4	45.4	45.3	45.2	45.2	45.1
70%:	45.0	45.0	44.9	44.9	44.8	44.8	44.7	44.7	44.6	44.6
80%:	44.5	44.4	44.3	44.2	44.1	44.1	44.0	43.9	43.8	43.7
90%:	43.6	43.5	43.4	43.3	43.2	43.0	42.9	42.8	42.8	42.6
100%:	42.0									

Logged Data Chart

S158_BLH080004_19022020_073658: Logged Data Chart



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Noise Measurement Report Form – Part A

Date: 2/18/20 Day of Week: Tues Time: 10:34 am Project No. 7034

Monitoring Site ID: 3/AA3 Monitoring Site Address: 7531 San Ardo Dr / 7550 Stage Rd

Measurement Taken By: Lisa Ann / Victor Paitimusa of UltraSystems Environmental

Approximate Wind Speed: _____mph [km/hr] Approximate Wind Direction: From the _____

Approximate distance of sound level meter from receptor location: ~ 60 ft

Approximate distance of sound level meter from construction site: _____
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☒ Residential ☐ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: _____

Meter Setting: ☒ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 10:34 am Measurement End Time: 10:49 am

Total Measurement Time: 15 mins Session File Name (e.g., S012): S159

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results (dB):

Measurement Type	Measured Levels	Noise Criteria Threshold	Exceedance
CALIBRATION	Pre: 114.0 Post: 114.0	n/a	n/a
$L_{eq\ (h)}$	Slow: 65.4 Fast:		
L_{max}	Slow: 76.9 Fast:	n/a	n/a
L_{90}	Slow: 47.5 Fast:	n/a	n/a

Field Notes:

1. Taken on south side of Stage Rd.
2. _____
3. _____

Noise Monitor's Signature: Li Ann Date: 2/18/20

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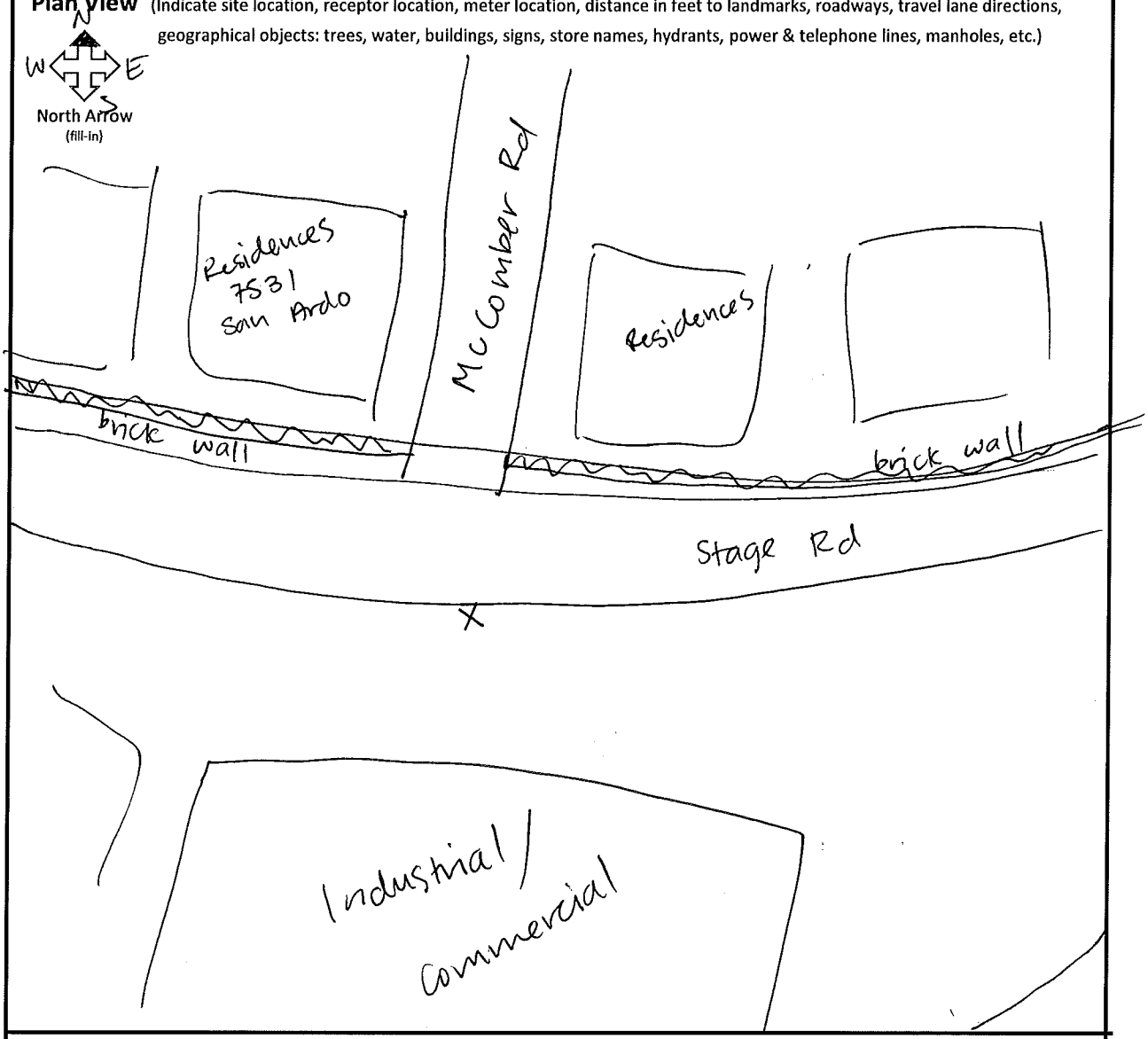
Noise Measurement Report Form – Part B

Date: 2/18/20 Day of Week: Tues Time: 10:34am

Monitoring Site ID: 3 Monitoring Site Address: 7550 Stage Rd

Site Map

Plan View (Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View (Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)

Latitude: N 33.88305°	**Longitude:** W118.00191°	**Elevation:** 6 ft

Session Report

2/19/2020

Information Panel

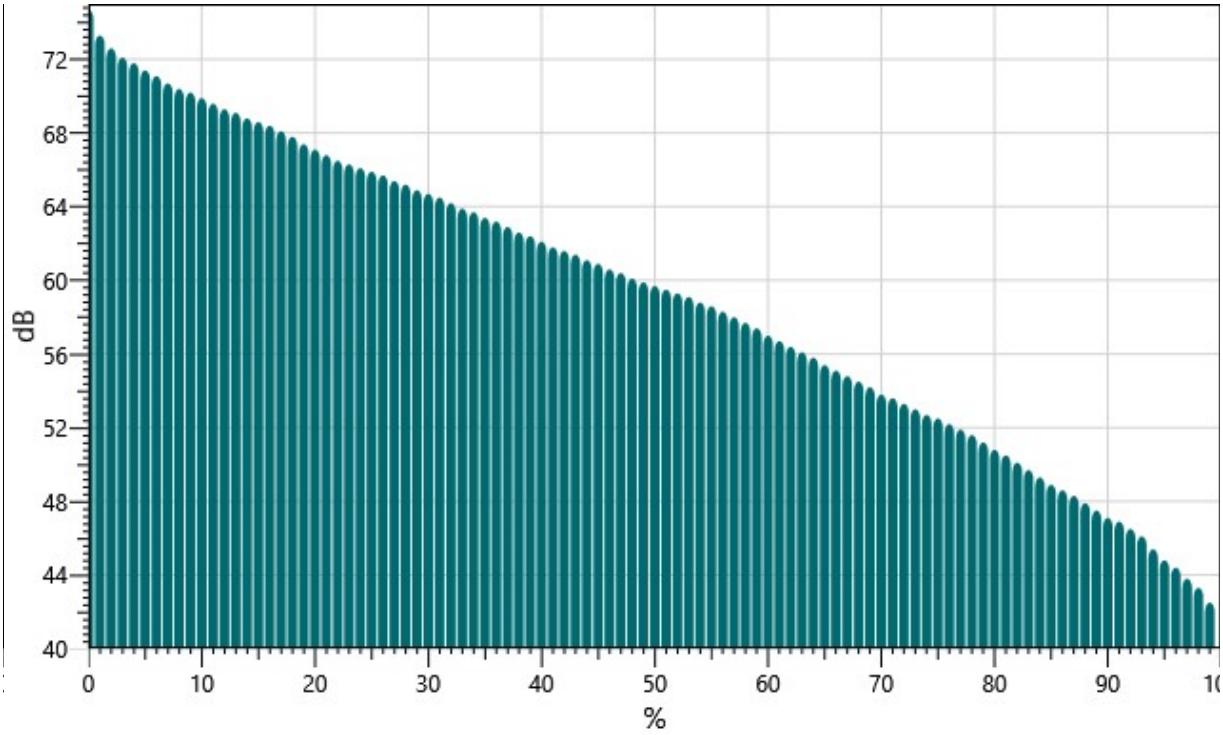
Name	S159_BLH080004_19022020_073659
Start Time	2/18/2020 10:35:17 AM
Stop Time	2/18/2020 10:50:17 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	65.4 dB	L90	1	47.5 dB
Lmax	1	76.9 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Lmax	2	79.1 dB	Lmin	2	41.9 dB
Leq	2	65.4 dB			
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

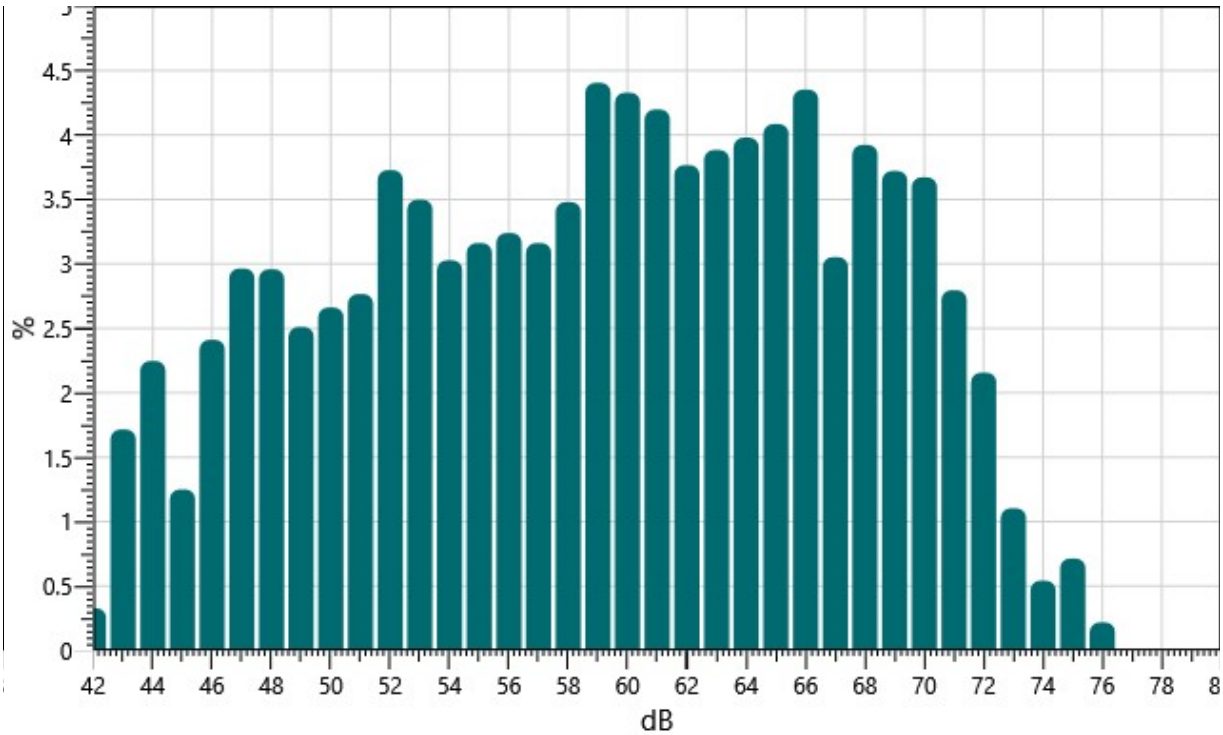
Exceedance Chart

S159_BLH080004_19022020_073659: Exceedance Chart



Statistics Chart

S159_BLH080004_19022020_073659: Statistics Chart



Statistics Table

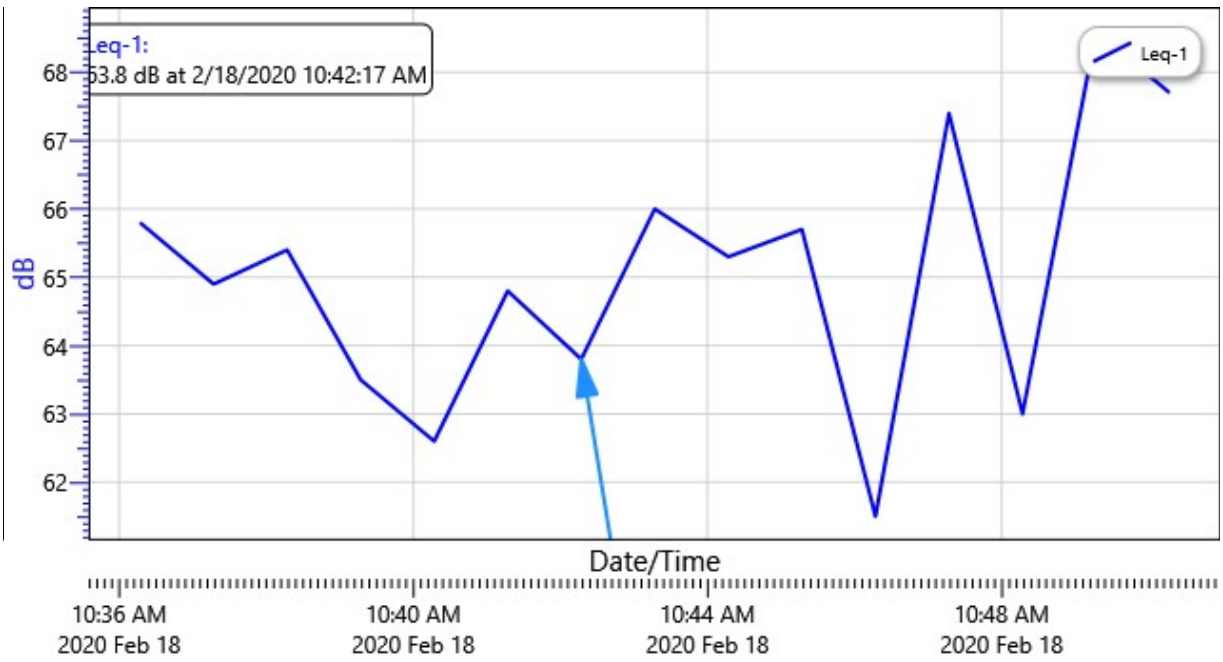
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
42:	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.07	0.10	0.12	0.33
43:	0.23	0.22	0.11	0.07	0.06	0.15	0.27	0.32	0.13	0.15	1.72
44:	0.12	0.12	0.14	0.21	0.15	0.23	0.17	0.25	0.49	0.37	2.25
45:	0.16	0.14	0.15	0.09	0.09	0.07	0.06	0.11	0.09	0.28	1.25
46:	0.16	0.16	0.16	0.25	0.27	0.24	0.29	0.29	0.28	0.32	2.41
47:	0.51	0.28	0.32	0.22	0.34	0.28	0.23	0.23	0.30	0.26	2.96
48:	0.29	0.35	0.16	0.26	0.25	0.28	0.34	0.37	0.29	0.38	2.96
49:	0.26	0.21	0.21	0.27	0.30	0.29	0.25	0.29	0.26	0.18	2.51
50:	0.17	0.20	0.25	0.24	0.22	0.27	0.32	0.30	0.34	0.35	2.66
51:	0.37	0.37	0.19	0.26	0.27	0.28	0.22	0.30	0.25	0.27	2.77
52:	0.33	0.28	0.34	0.33	0.34	0.38	0.45	0.41	0.47	0.40	3.73
53:	0.32	0.28	0.27	0.32	0.39	0.35	0.32	0.37	0.43	0.43	3.50
54:	0.37	0.41	0.17	0.26	0.27	0.29	0.30	0.32	0.34	0.29	3.03
55:	0.32	0.34	0.34	0.36	0.42	0.28	0.25	0.30	0.29	0.27	3.16
56:	0.31	0.36	0.29	0.27	0.38	0.41	0.35	0.32	0.29	0.26	3.24
57:	0.27	0.31	0.22	0.38	0.32	0.31	0.39	0.32	0.30	0.34	3.16
58:	0.33	0.30	0.24	0.23	0.36	0.47	0.43	0.42	0.37	0.34	3.48
59:	0.42	0.40	0.39	0.49	0.47	0.43	0.44	0.45	0.41	0.49	4.40
60:	0.56	0.64	0.36	0.48	0.42	0.42	0.37	0.35	0.35	0.39	4.33
61:	0.40	0.38	0.41	0.41	0.41	0.46	0.49	0.42	0.41	0.40	4.20
62:	0.40	0.34	0.36	0.31	0.40	0.44	0.40	0.38	0.36	0.37	3.77
63:	0.40	0.43	0.28	0.40	0.36	0.39	0.41	0.46	0.39	0.36	3.88
64:	0.36	0.37	0.37	0.39	0.37	0.44	0.42	0.39	0.41	0.46	3.98
65:	0.52	0.40	0.41	0.43	0.39	0.36	0.38	0.43	0.42	0.35	4.09
66:	0.45	0.53	0.39	0.56	0.55	0.49	0.41	0.36	0.34	0.28	4.35
67:	0.29	0.31	0.35	0.36	0.31	0.30	0.29	0.32	0.26	0.28	3.05
68:	0.29	0.30	0.33	0.32	0.35	0.33	0.46	0.52	0.55	0.47	3.92
69:	0.48	0.42	0.33	0.36	0.38	0.37	0.32	0.37	0.38	0.30	3.72
70:	0.30	0.36	0.38	0.46	0.36	0.40	0.50	0.37	0.30	0.25	3.67
71:	0.25	0.25	0.31	0.28	0.25	0.31	0.28	0.33	0.24	0.30	2.80
72:	0.33	0.28	0.22	0.12	0.26	0.18	0.20	0.16	0.19	0.21	2.16
73:	0.15	0.13	0.15	0.15	0.15	0.11	0.04	0.07	0.07	0.09	1.10
74:	0.05	0.04	0.04	0.05	0.05	0.09	0.05	0.05	0.05	0.06	0.54
75:	0.07	0.10	0.13	0.13	0.05	0.06	0.05	0.05	0.03	0.03	0.71
76:	0.03	0.05	0.02	0.03	0.02	0.01	0.01	0.01	0.02	0.02	0.22

Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		74.7	73.3	72.6	72.1	71.8	71.4	71.1	70.7	70.4
10%:	70.2	69.9	69.6	69.3	69.1	68.8	68.6	68.4	68.1	67.8
20%:	67.4	67.1	66.8	66.5	66.3	66.1	65.9	65.7	65.4	65.2
30%:	64.9	64.7	64.5	64.2	63.9	63.7	63.4	63.2	62.9	62.6
40%:	62.4	62.1	61.8	61.6	61.4	61.1	60.9	60.6	60.4	60.1
50%:	59.9	59.7	59.5	59.3	59.1	58.8	58.6	58.3	58.0	57.7
60%:	57.4	57.0	56.7	56.4	56.1	55.8	55.4	55.1	54.8	54.5
70%:	54.2	53.8	53.6	53.3	53.0	52.7	52.5	52.2	51.9	51.6
80%:	51.2	50.8	50.5	50.1	49.7	49.3	48.9	48.6	48.3	47.9
90%:	47.5	47.1	46.9	46.5	46.1	45.4	44.8	44.4	43.8	43.3
100%:	42.5									

Logged Data Chart

S159_BLH080004_19022020_073659: Logged Data Chart



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Irvine, CA 92618
949.788.4900

Noise Measurement Report Form – Part A

Date: 2/18/20 Day of Week: Tues Time: 10:59am Project No. 7034

Monitoring Site ID: 4/PA3 Monitoring Site Address: 7732 Granada Dr

Measurement Taken By: Lisa Ann / Victor Paitimusa of UltraSystems Environmental

Approximate Wind Speed: _____mph [km/hr] Approximate Wind Direction: From the _____

Approximate distance of sound level meter from receptor location: 20 ft

Approximate distance of sound level meter from construction site: _____

(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☒ Residential ☐ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: _____

Meter Setting: ☒ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 10:59 am Measurement End Time: 10:14 am

Total Measurement Time: 15 mins Session File Name (e.g., S012): S160

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results (dB):

Measurement Type	Measured Levels	Noise Criteria Threshold	Exceedance
CALIBRATION	Pre: 114.0 Post: 114.0	n/a	n/a
$L_{eq\ (h)}$	Slow: 52.9 Fast:		
L_{max}	Slow: 66.5 Fast:	n/a	n/a
L_{90}	Slow: 44.9 Fast:	n/a	n/a

Field Notes:

1. Approx. 5 ft brick wall between homes and project area
2. _____
3. _____

Noise Monitor's Signature: _____ Date: 2/18/20

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949.788.4900

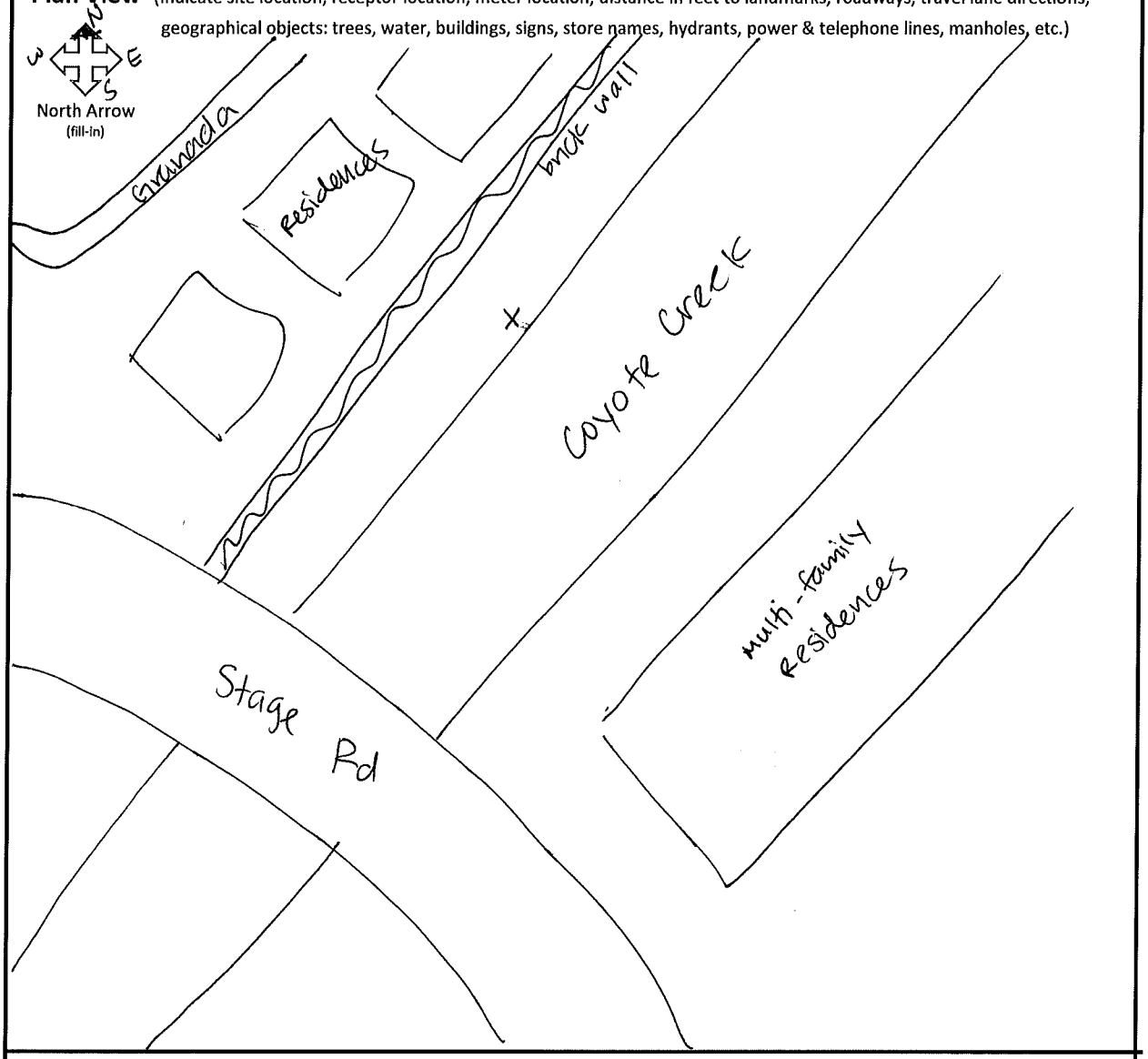
Noise Measurement Report Form – Part B

Date: 2/18/20 Day of Week: Tues Time: 10:59 am

Monitoring Site ID: 4 Monitoring Site Address: 7732 Granada Dr

Site Map

Plan View (Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View (Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)

Latitude: N 33.88362°	Longitude: W 118.00011°	Elevation: 10 ft

Session Report

2/19/2020

Information Panel

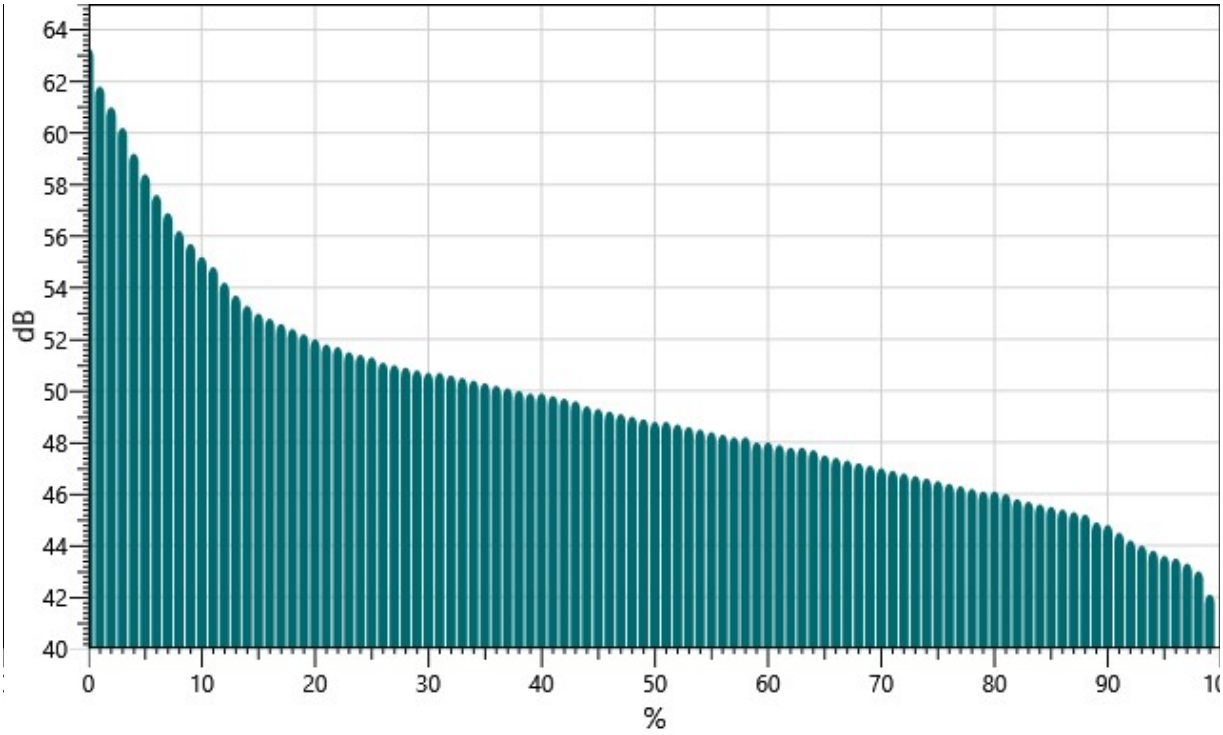
Name	S160_BLH080004_19022020_073700
Start Time	2/18/2020 11:00:56 AM
Stop Time	2/18/2020 11:15:56 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	52.9 dB	L90	1	44.9 dB
Lmax	1	66.5 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Lmax	2	67.5 dB	Lmin	2	41.3 dB
Leq	2	52.8 dB			
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

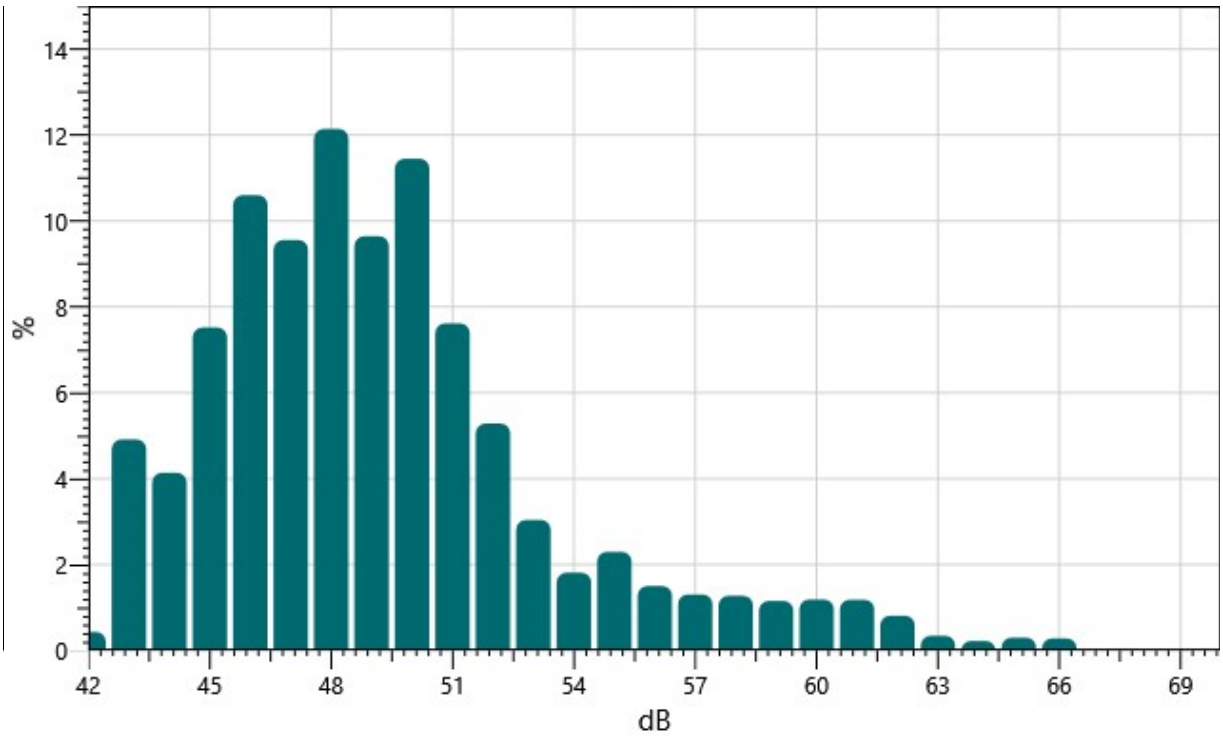
Exceedance Chart

S160_BLH080004_19022020_073700: Exceedance Chart



Statistics Chart

S160_BLH080004_19022020_073700: Statistics Chart



Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
42:	0.00	0.00	0.10	0.06	0.05	0.06	0.03	0.03	0.04	0.08	0.43
43:	0.25	0.41	0.54	0.33	0.35	0.46	0.72	0.68	0.43	0.76	4.91
44:	0.49	0.36	0.40	0.42	0.39	0.33	0.52	0.35	0.39	0.49	4.14
45:	0.52	0.48	0.50	0.98	0.95	0.90	0.73	0.83	0.78	0.84	7.52
46:	0.90	1.07	1.05	1.02	1.03	1.10	1.10	1.06	1.26	1.01	10.60
47:	0.78	1.01	0.84	1.15	0.89	0.92	0.91	0.88	0.95	1.24	9.56
48:	1.43	1.51	0.82	1.13	1.22	1.35	1.07	1.13	1.13	1.35	12.14
49:	1.26	1.05	0.96	0.83	0.82	0.87	0.83	0.90	1.14	0.99	9.64
50:	1.18	1.02	1.03	1.07	1.10	1.02	1.22	1.26	1.17	1.37	11.45
51:	1.15	1.05	0.55	0.72	0.81	0.75	0.76	0.61	0.67	0.55	7.61
52:	0.62	0.74	0.62	0.47	0.53	0.41	0.48	0.50	0.37	0.54	5.28
53:	0.56	0.56	0.32	0.25	0.21	0.22	0.18	0.20	0.26	0.27	3.04
54:	0.20	0.17	0.12	0.19	0.19	0.19	0.16	0.15	0.19	0.24	1.81
55:	0.31	0.27	0.17	0.21	0.21	0.23	0.20	0.23	0.27	0.19	2.30
56:	0.19	0.16	0.17	0.20	0.11	0.16	0.12	0.12	0.15	0.12	1.50
57:	0.17	0.19	0.18	0.15	0.10	0.09	0.11	0.16	0.08	0.07	1.30
58:	0.09	0.15	0.20	0.15	0.11	0.13	0.09	0.09	0.09	0.17	1.27
59:	0.19	0.12	0.11	0.13	0.07	0.08	0.06	0.10	0.16	0.14	1.15
60:	0.11	0.10	0.05	0.11	0.16	0.13	0.16	0.14	0.11	0.11	1.19
61:	0.13	0.10	0.11	0.08	0.09	0.11	0.19	0.16	0.13	0.08	1.18
62:	0.09	0.07	0.09	0.13	0.14	0.14	0.06	0.03	0.02	0.04	0.81
63:	0.07	0.02	0.02	0.03	0.05	0.04	0.04	0.02	0.02	0.04	0.34
64:	0.01	0.02	0.01	0.01	0.02	0.04	0.04	0.01	0.03	0.02	0.22
65:	0.02	0.02	0.03	0.06	0.03	0.03	0.05	0.03	0.03	0.03	0.30
66:	0.10	0.06	0.05	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.28

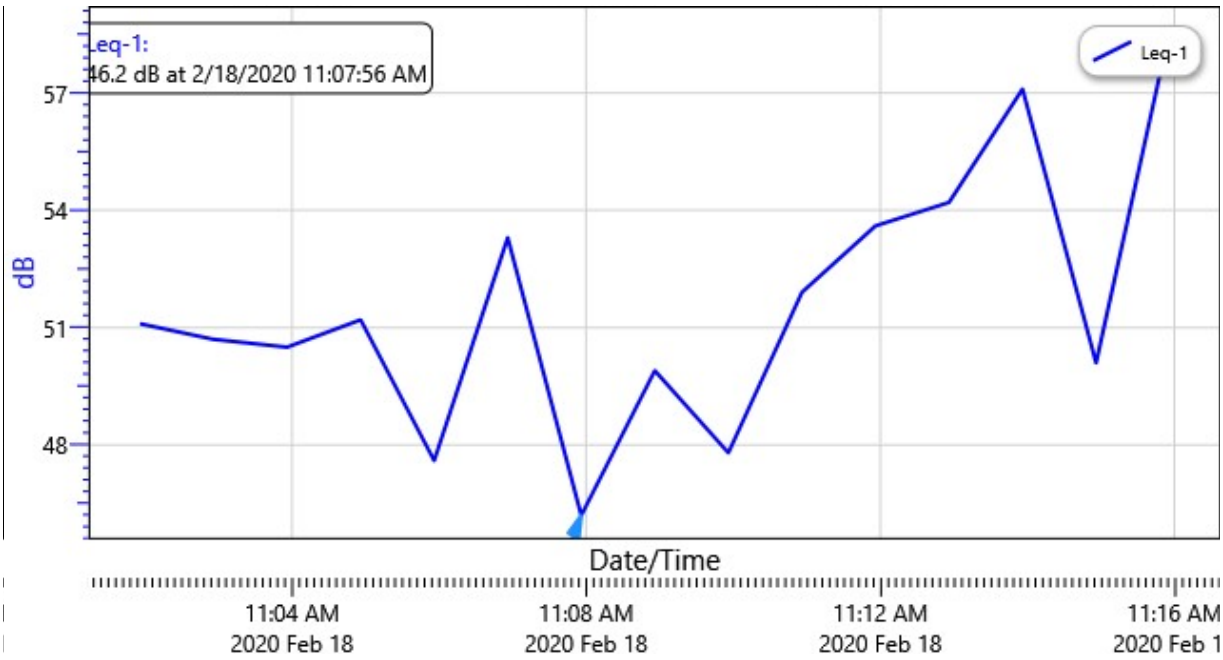
Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		63.3	61.8	61.0	60.2	59.2	58.4	57.6	56.9	56.2
10%:	55.7	55.2	54.8	54.2	53.7	53.3	53.0	52.8	52.6	52.4
20%:	52.2	52.0	51.8	51.7	51.5	51.4	51.3	51.1	51.0	50.9
30%:	50.8	50.7	50.7	50.6	50.5	50.4	50.3	50.2	50.1	50.0
40%:	49.9	49.9	49.8	49.7	49.6	49.4	49.3	49.2	49.1	49.0
50%:	48.9	48.8	48.8	48.7	48.6	48.5	48.4	48.3	48.2	48.2

60%:	48.0	48.0	47.9	47.8	47.8	47.7	47.5	47.4	47.3	47.2
70%:	47.1	47.0	46.9	46.8	46.7	46.6	46.5	46.4	46.3	46.2
80%:	46.1	46.1	46.0	45.8	45.7	45.6	45.5	45.4	45.3	45.2
90%:	44.9	44.8	44.5	44.2	44.0	43.8	43.6	43.5	43.3	43.0
100%:	42.1									

Logged Data Chart

S160_BLH080004_19022020_073700: Logged Data Chart



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Irvine, CA 92618
949.788.4900

Noise Measurement Report Form – Part A

Date: 2/18/20 Day of Week: Tues Time: 11:33 am Project No. 7034

Monitoring Site ID: S/APZ Monitoring Site Address: 14954 San Ardo

Measurement Taken By: Lisa Ahn / Victor Paitimusa of UltraSystems Environmental

Approximate Wind Speed: _____ mph [km/hr] Approximate Wind Direction: From the _____

Approximate distance of sound level meter from receptor location: 30 ft

Approximate distance of sound level meter from construction site: _____

(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☒ Residential ☐ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: _____

Meter Setting: ☒ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 11:33 am Measurement End Time: 11:48 am

Total Measurement Time: 15 mins Session File Name (e.g., S012): S161

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results (dB):

Measurement Type	Measured Levels	Noise Criteria Threshold	Exceedance
CALIBRATION	Pre: 114.0 Post: 114.0	n/a	n/a
$L_{eq\ (h)}$	Slow: 62.4 Fast:		
L_{max}	Slow: 73.4 Fast:	n/a	n/a
L_{90}	Slow: 54.7 Fast:	n/a	n/a

Field Notes:

1. _____
2. _____
3. _____

Noise Monitor's Signature: _____ Date: 2/18/20

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Irvine, CA 92618
949.788.4900

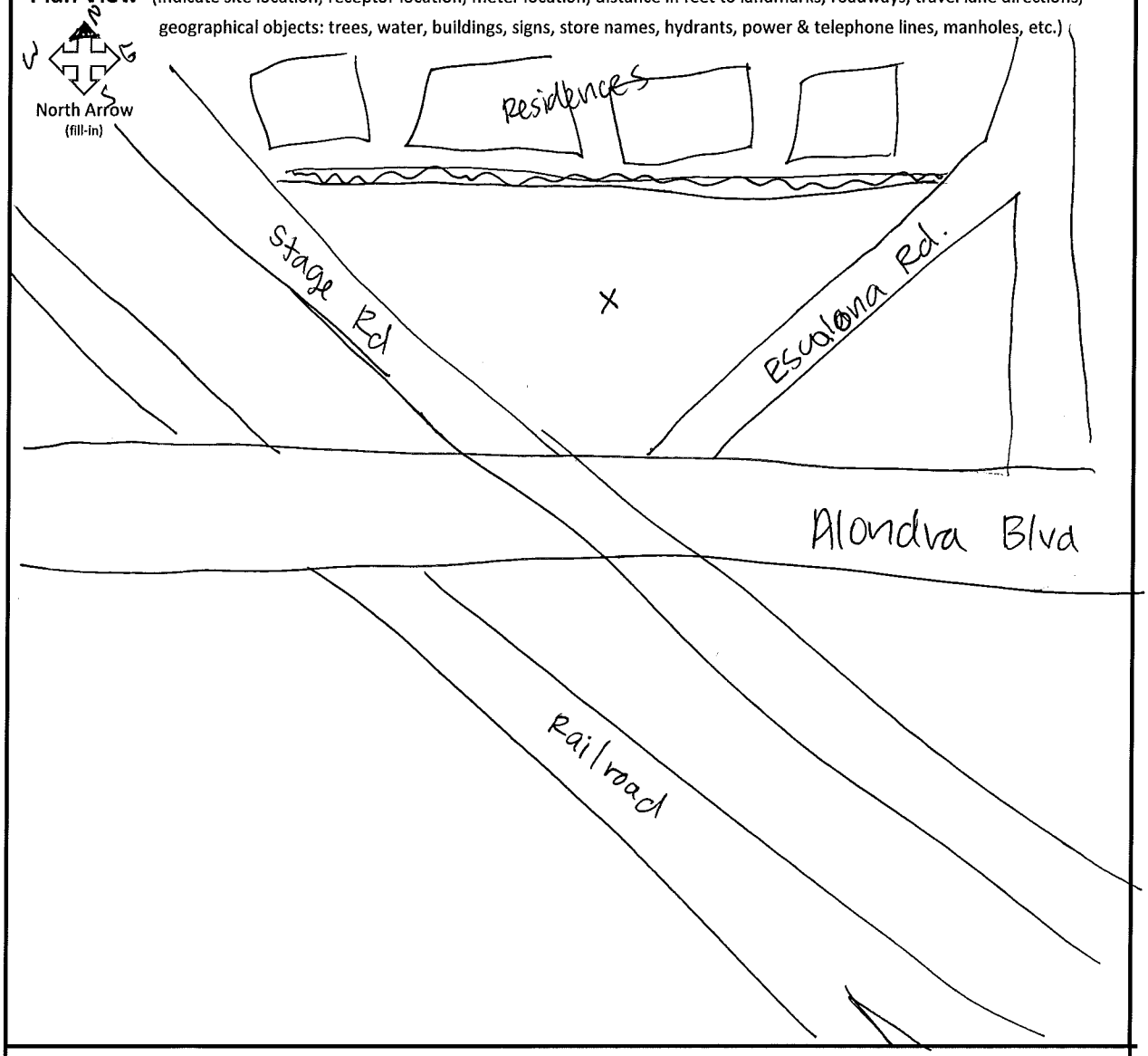
Noise Measurement Report Form – Part B

Date: 2/18/20 Day of Week: Tues Time: 11:33 am

Monitoring Site ID: 5 Monitoring Site Address: 14954 San Ardo

Site Map

Plan View (Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View (Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)

Latitude: N 38.88842°	Longitude: W 118.01189°	Elevation: 134 ft

Session Report

2/19/2020

Information Panel

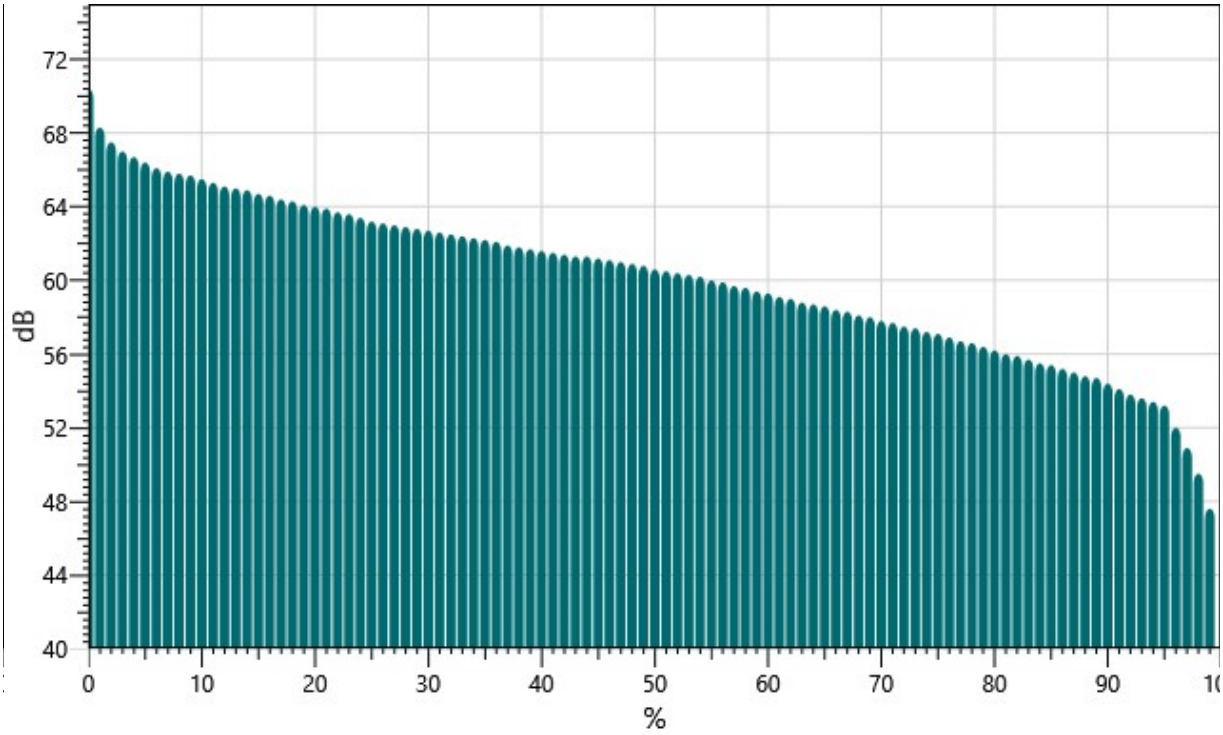
Name	S161_BLH080004_19022020_073702
Start Time	2/18/2020 11:35:00 AM
Stop Time	2/18/2020 11:50:00 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	62.4 dB	L90	1	54.7 dB
Lmax	1	73.4 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Lmax	2	74.5 dB	Lmin	2	46.8 dB
Leq	2	62.4 dB			
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

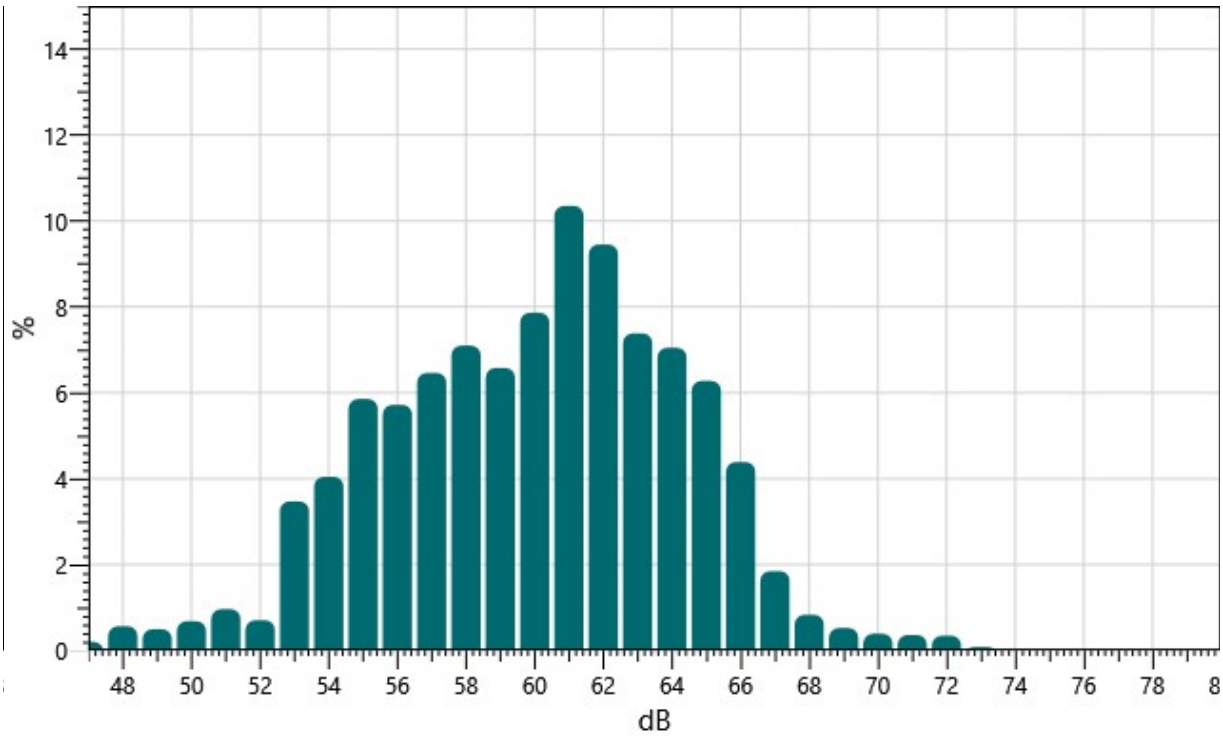
Exceedance Chart

S161_BLH080004_19022020_073702: Exceedance Chart



Statistics Chart

S161_BLH080004_19022020_073702: Statistics Chart



Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
47:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.13	0.05	0.20
48:	0.02	0.04	0.02	0.03	0.12	0.12	0.09	0.05	0.05	0.02	0.57
49:	0.01	0.03	0.01	0.01	0.01	0.06	0.11	0.10	0.09	0.06	0.50
50:	0.08	0.04	0.05	0.02	0.03	0.07	0.07	0.09	0.10	0.13	0.68
51:	0.15	0.22	0.09	0.15	0.13	0.03	0.03	0.07	0.05	0.05	0.96
52:	0.06	0.07	0.18	0.13	0.06	0.05	0.05	0.05	0.04	0.03	0.71
53:	0.03	0.05	0.23	0.24	0.37	0.54	0.44	0.63	0.48	0.45	3.47
54:	0.40	0.36	0.23	0.25	0.28	0.40	0.46	0.52	0.52	0.63	4.05
55:	0.55	0.45	0.56	0.48	0.55	0.72	0.69	0.63	0.61	0.61	5.85
56:	0.48	0.54	0.62	0.57	0.54	0.48	0.61	0.78	0.58	0.51	5.72
57:	0.57	0.65	0.55	0.73	0.65	0.68	0.58	0.61	0.70	0.74	6.46
58:	0.71	0.56	0.66	0.76	0.70	0.70	0.71	0.75	0.77	0.78	7.10
59:	0.71	0.53	0.59	0.61	0.66	0.91	0.58	0.73	0.62	0.63	6.58
60:	0.67	0.82	0.60	0.80	0.92	0.75	0.74	0.90	0.82	0.83	7.86
61:	1.10	0.98	1.04	1.14	1.48	1.15	0.81	0.88	0.79	0.98	10.35
62:	0.96	0.87	0.76	0.83	0.89	0.91	1.13	1.05	0.97	1.09	9.45
63:	1.00	1.22	0.62	0.85	0.45	0.56	0.69	0.70	0.59	0.69	7.38
64:	0.71	0.71	0.85	0.68	0.77	0.58	0.66	0.62	0.85	0.62	7.05
65:	0.70	0.74	0.64	0.63	0.50	0.47	0.52	0.64	0.77	0.64	6.28
66:	0.82	0.61	0.38	0.34	0.46	0.37	0.27	0.23	0.48	0.43	4.39
67:	0.30	0.28	0.24	0.19	0.20	0.16	0.12	0.10	0.15	0.11	1.85
68:	0.13	0.11	0.09	0.15	0.11	0.04	0.05	0.07	0.05	0.04	0.83
69:	0.03	0.09	0.08	0.05	0.03	0.05	0.07	0.04	0.05	0.04	0.53
70:	0.04	0.03	0.03	0.03	0.05	0.04	0.04	0.04	0.05	0.04	0.39
71:	0.05	0.03	0.04	0.03	0.03	0.04	0.04	0.03	0.04	0.03	0.36
72:	0.04	0.03	0.03	0.03	0.05	0.04	0.02	0.04	0.05	0.02	0.35
73:	0.01	0.01	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.09

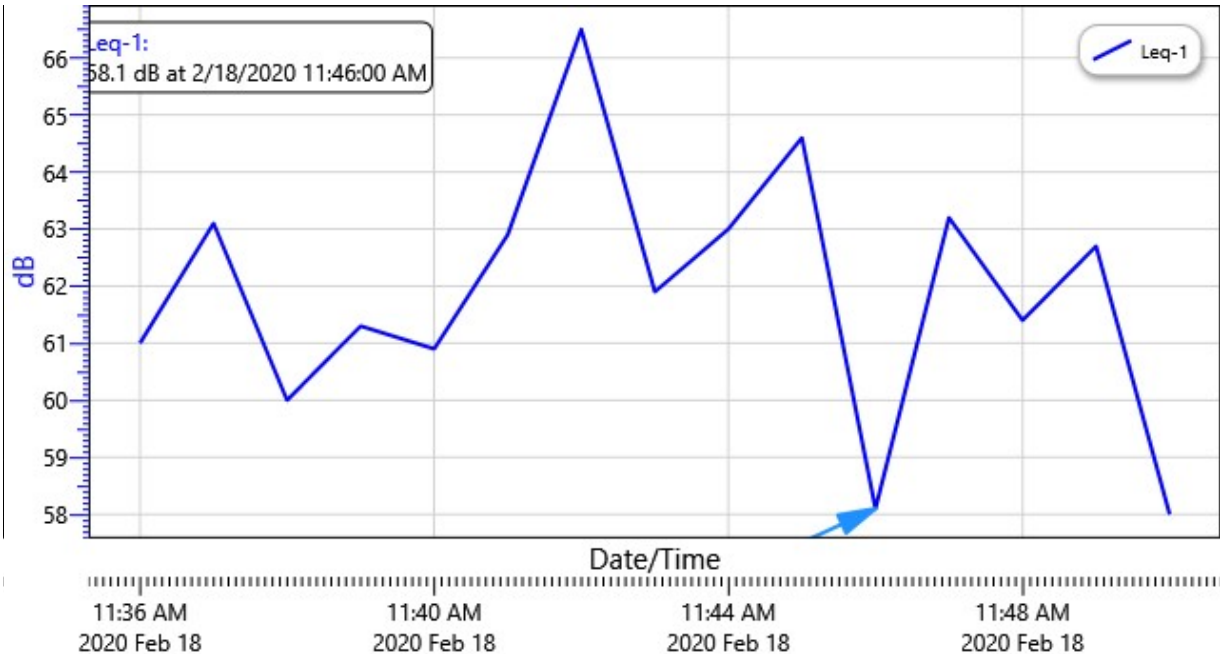
Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		70.4	68.3	67.5	67.0	66.7	66.4	66.1	65.9	65.8
10%:	65.7	65.5	65.3	65.1	65.0	64.9	64.7	64.6	64.4	64.3
20%:	64.1	64.0	63.9	63.7	63.6	63.4	63.2	63.1	63.0	62.9
30%:	62.8	62.7	62.6	62.5	62.4	62.3	62.2	62.1	61.9	61.8

40%:	61.7	61.6	61.5	61.4	61.3	61.3	61.2	61.1	61.0	60.9
50%:	60.8	60.6	60.5	60.4	60.3	60.2	60.0	59.9	59.7	59.6
60%:	59.4	59.3	59.1	59.0	58.8	58.7	58.6	58.4	58.3	58.1
70%:	58.0	57.8	57.7	57.5	57.4	57.2	57.1	56.9	56.7	56.6
80%:	56.4	56.2	56.0	55.9	55.7	55.5	55.4	55.2	55.0	54.8
90%:	54.7	54.4	54.1	53.8	53.6	53.4	53.2	52.0	50.9	49.5
100%:	47.6									

Logged Data Chart

S161_BLH080004_19022020_073702: Logged Data Chart



APPENDIX H

INFORMATION REQUEST LETTERS

UltraSystems
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March 16, 2020

Fire Captain John Suwanpruiksa
Orange County Fire Station #62
7780 Artesia Boulevard
Buena Park, CA 90621
johnsuwanpruiksa@ocfa.org

RE: Information Request Letter for the OC Loop Segments O, P and Q Project

Dear Fire Captain John Suwanpruiksa,

UltraSystems has been hired by the County of Orange to conduct environmental analysis for the proposed OC Loop Segments O, P and Q Project (project). As a whole, the proposed project involves the construction and operation of a 2.7-mile Class I Bikeway component of a larger and longer 66-mile regional bikeway corridor called the OC Loop. Comprised of OC Loop Segments O, P, and Q, the new proposed facilities, scheduled to become part of the Coyote Creek Bikeway, would be located along the northwest Orange County/southwest Los Angeles County border from its point of origin along the Coyote Creek storm drain channel in the City of Cerritos on the south to the City of Buena Park to the north. UltraSystems is analyzing potential environmental impacts of the proposed project, including potential impacts on public services, including fire protection services. UltraSystems will be writing an Initial Study Mitigated Negative Declaration (IS/MND) for the project and needs your department's input on potential impacts to the Fire Department. The purpose of this letter is to request information from the Orange County Fire Station #62 regarding the proposed project.

Project Location and Description

Portions of the project site are located within the City of Buena Park. The County of Orange proposes to repave the existing Coyote Creek bikeway and to also create a connected bikeway along Coyote Creek that would connect a larger network of bikeways called the OC Loop. There would be two portions of the proposed bikeway within the City of Buena Park. The first portion be along Coyote Creek at the intersection with Valley View Street and would extend northeast along Coyote Creek until its intersection with Artestia Boulevard. The second portion would be along Coyote Creek at its intersection with Knott Avenue and would extend northeast along Coyote Creek until its intersection at La Mirada Boulevard. See attached project location map and conceptual site plan. Please note that the proposed project would not increase the population within the city.

It would be much appreciated if you would please answer the questions below via email no later than Friday, March 20, 2020.

Please send your answers to me at **vpaitimusa@ultrasystems.com**. If you have any questions I can be reached via email or by phone at: (626) 512-5111.

1. Where is the nearest fire station that would serve OC Loop Segments O, P and Q Project and what apparatus and personnel are located at that station?

2. Would this project require construction of new fire department facilities to meet existing fire demands, in addition to the proposed project's demands?

3. Does the Fire Department anticipate any potential environmental impacts from the proposed project related to providing fire service to the project site?

4. What is the Fire Department's existing average response time and are the Department's response time goals currently being met?

5. Could the proposed project have potentially significant impacts on the Fire Department's level of service and/or response times?

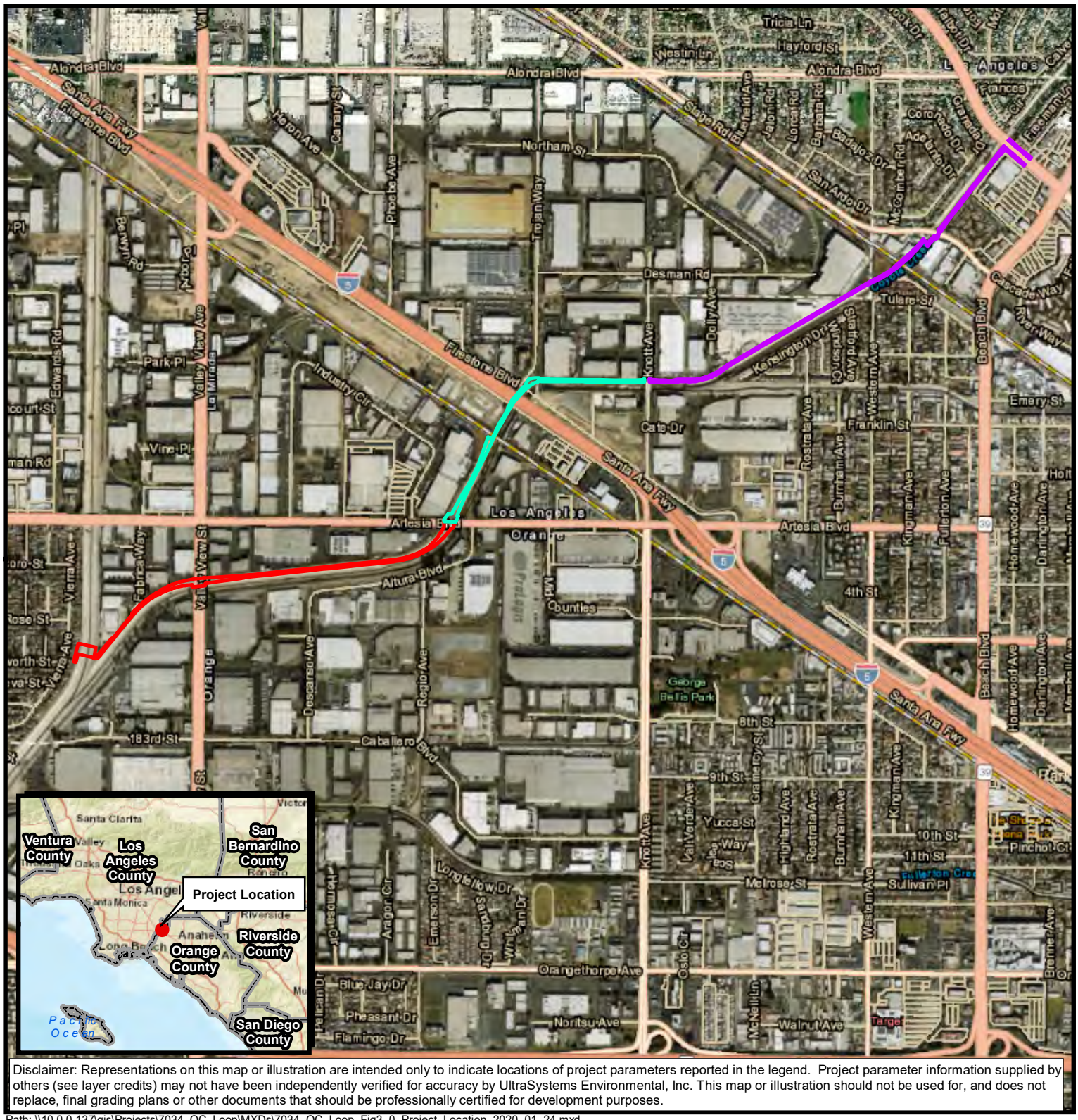
6. If the proposed project has the potential to impact the Fire Department's level of service and/or response times, what mitigation, if any, do you recommend to reduce potential impacts?

7. Are there any other issues you see with the proposed project related to fire service? If so, please describe.

Best Regards,

Victor Paitimusa, Associate Planner
UltraSystems Environmental, Inc.
16431 Scientific Way
Irvine, CA 92618
T: (626) 512-5111
vpaitimusa@ultrasystems.com

Attachments:
- Project Location Map



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February 07, 2020

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Scale: 1:19,200

N

0 800 1,600 Feet

0 200 400 Meters

Legend

Project Boundary

- Segment O
- Segment P
- Segment Q

OC Loop Segments O, P, and Q

Project Location

UltraSystems environmental • management • planning

From: Blumberg, William <WilliamBlumberg@ocfa.org>
Sent: Wednesday, April 15, 2020 2:59 PM
To: Victor Paitimusa <vpaitimusa@ultrasystems.com>
Subject: Re: FW: OC Loop Project Information Request Letter

Victor,
Here are the OCFA answers for the OC Loop Segment O, P, and Q Project.
Regards,
William

1. Where is the nearest fire station that would serve OC Loop Segments O, P and Q Project and what apparatus and personnel are located at that station?
   - For OC Loop Segment O - OCFA Fire Station 62 and OCFA Fire Station 13
   - For OC Loop Segment P - OCFA Fire Station 62
   - For OC Loop Segment Q - OCFA Fire Station 62

Daily Staff		
Station	Equipment	Positions
13	Paramedic Engine	Fire Captain, Fire Apparatus Engineer, 2x Firefighters
62	Paramedic Engine	Fire Captains, Fire Apparatus Engineer, 2x Firefighters

2. Would this project require construction of new fire department facilities to meet existing fire demands, in addition to the proposed project's demands?
   - No

3. Does the Fire Department anticipate any potential environmental impacts from the proposed project related to providing fire service to the project site?
   - The proposed project may impact OCFA's ability to reach cyclist or pedestrian for medical aids.

4. What is the Fire Department's existing average response time and are the Department's response time goals currently being met?
   - OCFA provides Standards of Cover not average response times.

     OCFA's Standard of Cover for fire services in urban areas, such as the City of Buena Park, are listed below. Response times are from receipt of the service call to a unit on scene:

- First-in unit should arrive on-scene to medical aids and/or fires within 7 minutes and 20 seconds 80 percent of the time.
- First-in truck companies should arrive on-scene to fires within 12 minutes 80 percent of the time.
- First-in paramedic companies should arrive on-scene at all medical aids within 10 minutes 80 percent of the time.

- Yes, OCFA's Standards of Cover are being met.

5. Could the proposed project have potentially significant impacts on the Fire Department's level of service and/or response times?
   - There may be less than significant impact for emergency responder access to cyclists or pedestrians on the completed Bike Lane.
   - There may be less than significant impact for providing access to emergency services adjacent to the completed Bike Lane to other structures, fire hydrants or other local potential hazards.
   - There may be less than significant impact for existing fire access roads if they are reduced in width or turning radius.

6. If the proposed project has the potential to impact the Fire Department's level of service and/or response times, what mitigation, if any, do you recommend to reduce potential impacts?
   - Ensure that OCFA has adequate (approved) access for first responders along the entire Bike Lane path.

7. Are there any other issues you see with the proposed project related to fire service? If so, please describe.
   - No

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March 13, 2020

Police Chief Corey Sianez
Buena Park Police Department
6640 Beach Boulevard
Buena Park, CA 90622
csianez@bppd.com

RE: Information Request Letter for the OC Loop Segments O, P and Q Project

Dear Police Chief Corey Sianez,

UltraSystems has been hired by the County of Orange to conduct environmental analysis for the proposed OC Loop Segments O, P and Q Project (project). As a whole, the proposed project involves the construction and operation of a 2.7-mile Class I Bikeway component of a larger and longer 66-mile regional bikeway corridor called the OC Loop. Comprised of OC Loop Segments O, P, and Q, the new proposed facilities, scheduled to become part of the Coyote Creek Bikeway, would be located along the northwest Orange County/southwest Los Angeles County border from its point of origin along the Coyote Creek storm drain channel in the City of Cerritos on the south to the City of Buena Park to the north. UltraSystems is analyzing potential environmental impacts of the proposed project, including potential impacts on public services, including law enforcement. UltraSystems will be writing an Initial Study Mitigated Negative Declaration (IS/MND) for the project and needs your department's input on potential impacts to law enforcement. The purpose of this letter is to request information from the Buena Park Police Department regarding the project.

Project Location and Description

Portions of the project site are located within the City of Buena Park. The County of Orange proposes to repave the existing Coyote Creek bikeway and to also create a connected bikeway along Coyote Creek that would connect a larger network of bikeways called the OC Loop. There would be two portions of the proposed bikeway within the City of Buena Park. The first portion would be along Coyote Creek at the intersection with Valley View Street and would extend northeast along Coyote Creek until its intersection with Artestia Boulevard. The second portion would be along Coyote Creek at its intersection with Knott Avenue and would extend northeast along Coyote Creek until its intersection at La Mirada Boulevard. See attached project location map and conceptual site plan. Please note that the proposed project would not increase the population within the city.

It would be much appreciated if you would please answer the questions below via email no later than Friday, March 20, 2020.

Please send your answers to me at **vpaitimusa@ultrasystems.com.** If you have any questions I can be reached via email or by phone at: (626) 512-5111.

1. Where is the nearest Police Department that would serve OC Loop Segments O, P and Q and what apparatus and personnel are located at that station?

2. What is the average response time and crime statistics for the project area?

3. Would this project require construction of new law enforcement facilities to meet existing

law enforcement demands, in addition to the demands of the proposed project?

4. Does the Police Department anticipate any potential environmental impacts from the proposed project related to providing law enforcement service to the project site?

5. Could the proposed project have potentially significant impacts on the Police Department's level of service and/or response times?

6. If the proposed project has the potential to impact the Police Department's level of service and/or response times, what mitigation, if any, do you recommend to reduce potential impacts?

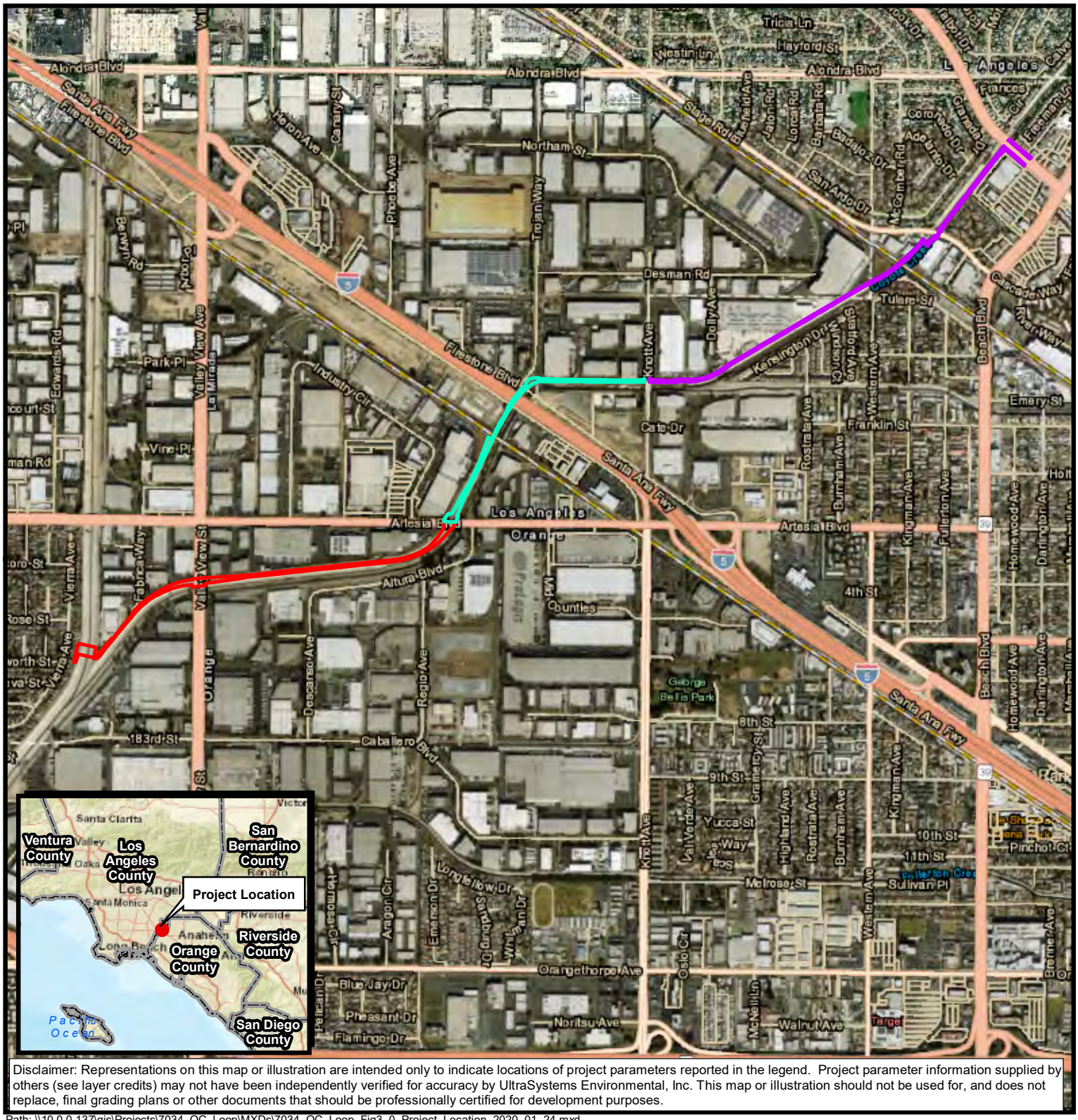
7. Are there any other issues you see with the proposed project related to law enforcement services? If so, please describe.

Best Regards,

Victor Paitimusa, Associate Planner
UltraSystems Environmental, Inc.
16431 Scientific Way
Irvine, CA 92618
T: (626) 512-5111
vpaitimusa@ultrasystems.com

Attachments:

- Project Location Map



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February 07, 2020

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Scale: 1:19,200

N

0 800 1,600 Feet

0 200 400 Meters

Legend

Project Boundary

- Segment O
- Segment P
- Segment Q

OC Loop Segments O, P, and Q

Project Location

UltraSystems environmental • management • planning

From: Worrall, Gary <gworrall@bppd.com>
Sent: Friday, April 10, 2020 12:06 PM
To: Victor Paitimusa <vpaitimusa@ultrasystems.com>
Subject: RE: FW: OC Loop Fire Information Request Letter

Responding to a call for service in the project area would require vehicle access. I suspect this may require an officer to unlock a gate or bypass some other vehicle impediment to access the area, slowing his/her response.

From: Victor Paitimusa <vpaitimusa@ultrasystems.com>
Sent: Friday, April 10, 2020 11:53 AM
To: Worrall, Gary <gworrall@bppd.com>
Subject: Re: FW: OC Loop Fire Information Request Letter

Thank you so much for your fast response. For question 5, how could the project significantly impact the level of response or response times since the large majority of the project is along Coyote Creek and not along any of the city streets?

On Fri, Apr 10, 2020 at 11:20 AM Worrall, Gary <gworrall@bppd.com> wrote:
Mr. Paitimusa,

Below are my answers to the 7 questions:

1. The nearest Police Department that would serve OC Loop Segments O,P, and Q is the Buena Park Police Department. This is a municipal police department that serves ten square miles with 95 sworn officers equipped with sufficient apparatus.

2. The average response time to emergency calls is less than 3 minutes. The average response time to non-emergency calls for service is less than 10 minutes. Below is a table of Part One Crimes Reported to the Department of Justice for the year 2019:

California Crime Index (CCI) Part One Crimes Reported				
Violent Crimes				
Violent Crimes	**December 2019**	**Year To Date 2019**	**Year To Date 2018**	**%D∆**
Homicide	0	1	0	**+1**
Rape and Attempts	2	15	17	**-12%**
Robbery	4	95	72	**+32%**
Aggravated Assault	9	137	164	**-16%**
Total Violent Crimes	**15**	**248**	**253**	**-2%**
Property Crimes				
Property Crimes	**December 2019**	**Year To Date 2019**	**Year To Date 2018**	**%D∆**
Burglary	19	233	259	**-10%**
Larceny – Theft	135	1,630	2,018	**-19%**
Motor Vehicle Theft	17	262	346	**-24%**
Arson	1	4	9	**-56%**
Total Property Crimes	**172**	**2,129**	**2,632**	**-19%**
Total Part One Crimes	**187**	**2,377**	**2,885**	**-18%**

3. This project would not require construction of new law enforcement facilities to meet existing law enforcement demands or the demands of this project.

4. The Buena Park Police Department does anticipate some potential environmental impacts from the proposed project related to providing law enforcement service to the project site.

5. The proposed project could have potentially significant impacts on the Police Department's level of service and/or response times.

6. A portion of the proposed project site is immediately adjacent to a well-established gang territory, specifically section Q. Police officers will need vehicle access to patrol the area or respond to crimes occurring on the Project. Providing nighttime illumination will help diminish crime.

7. I do not see any additional issues with this proposed project related to law enforcement services.

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March 13, 2020

Fire Captain Brian Audet
Los Angeles County Fire Station #35
13717 East Artesia Boulevard
Cerritos, CA 91011
035@firehosted.lacounty.gov

RE: Information Request Letter for the OC Loop Segments O, P and Q Project

Dear Fire Captain Audet,

UltraSystems has been hired by the County of Orange to conduct environmental analysis for the proposed OC Loop Segments O, P and Q Project (project). As a whole, the proposed project involves the construction and operation of a 2.7-mile Class I Bikeway component of a larger and longer 66-mile regional bikeway corridor called the OC Loop. Comprised of OC Loop Segments O, P, and Q, the new proposed facilities, scheduled to become part of the Coyote Creek Bikeway, would be located along the northwest Orange County/southwest Los Angeles County border from its point of origin along the Coyote Creek storm drain channel in the City of Cerritos on the south to the City of Buena Park to the north. UltraSystems is analyzing potential environmental impacts of the proposed project, including potential impacts on public services, including fire protection services. UltraSystems will be writing an Initial Study Mitigated Negative Declaration (IS/MND) for the project and needs your department's input on potential impacts to the Fire Department. The purpose of this letter is to request information from the LA County Fire Station #35 regarding the proposed project.

Project Location and Description

Portions of the project site are located within the City of Cerritos. The County of Orange proposes to repave the existing Coyote Creek bikeway and to also create a connected bikeway along Coyote Creek that would connect a larger network of bikeways called the OC Loop. The portion of the project that would be within the City of Cerritos would start at Station 10+00, where the Coyote Creek divides into its north and northeast forks and extend along Coyote Creek until its intersection with Valley View Street. See attached project location map and conceptual site plan. Please note that the proposed project would not increase the population within the city.

It would be much appreciated if you would please answer the questions below via email no later than Friday, March 20, 2020.

Please send your answers to me at **vpaitimusa@ultrasystems.com**. If you have any questions I can be reached via email or by phone at: (626) 512-5111.

1. Where is the nearest fire station that would serve OC Loop Segments O, P and Q Project and what apparatus and personnel are located at that station?

2. Would this project require construction of new fire department facilities to meet existing fire demands, in addition to the proposed project's demands?

3. Does the Fire Department anticipate any potential environmental impacts from the proposed project related to providing fire service to the project site?

4. What is the Fire Department's existing average response time and are the Department's response time goals currently being met?

5. Could the proposed project have potentially significant impacts on the Fire Department's level of service and/or response times?

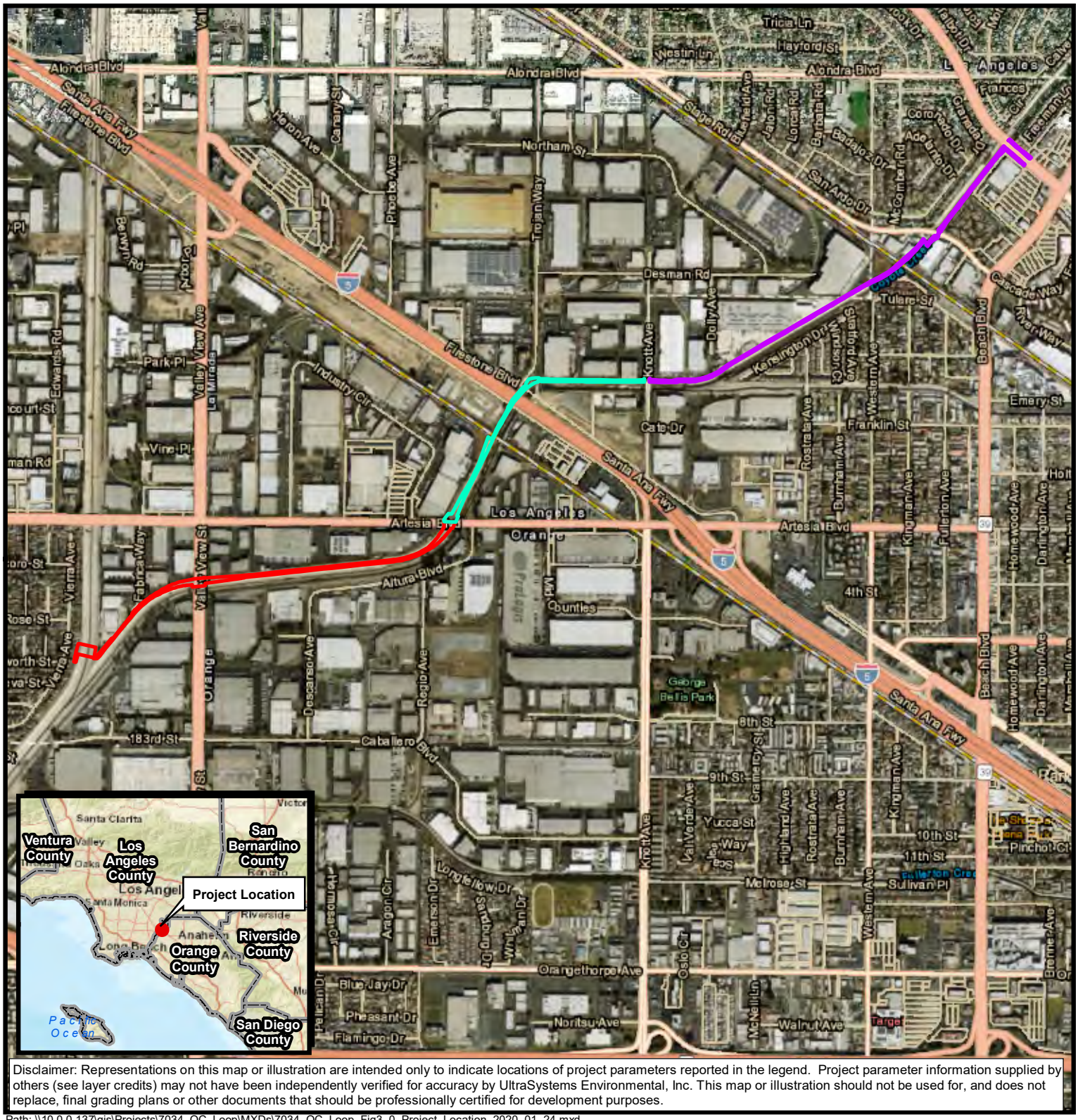
6. If the proposed project has the potential to impact the Fire Department's level of service and/or response times, what mitigation, if any, do you recommend to reduce potential impacts?

7. Are there any other issues you see with the proposed project related to fire service? If so, please describe.

Best Regards,

Victor Paitimusa, Associate Planner
UltraSystems Environmental, Inc.
16431 Scientific Way
Irvine, CA 92618
T: (626) 512-5111
vpaitimusa@ultrasystems.com

Attachments:
- Project Location Map



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Scale: 1:19,200

N

0 800 1,600 Feet

0 200 400 Meters

Legend

Project Boundary

- Segment O
- Segment P
- Segment Q

OC Loop Segments O, P, and Q

Project Location

UltraSystems environmental • management • planning

From: 035, Station
Sent: Wednesday, April 15, 2020 11:04 AM
To: Victor Paitimusa [mailto:vpaitimusa@ultrasystems.com]
Subject: Re: OC Loop Fire Information Request Letter

1. LACo FS-35 is closest to portions of Segment O and P, Either Santa Fe springs or OCFA has the other segment.
2. No
3. No
4. Approx 4-6 minutes depending on which resource is responding. This time is assumed to be being met.
5. No
6. N/A
7. None

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March 13, 2020

Captain Minh Dinh
Cerritos Sherriff's Station
18135 Bloomfield Avenue
Cerritos, CA 90703
mgdinh@lasd.org

RE: Information Request Letter for the OC Loop Segments O, P and Q Project

Dear Captain Minh Dinh,

UltraSystems has been hired by the County of Orange to conduct environmental analysis for the proposed OC Loop Segments O, P and Q Project (project). UltraSystems is analyzing potential environmental impacts of the proposed project, including potential impacts on public services. UltraSystems will be writing an Initial Study Mitigated Negative Declaration (IS/MND) for the project and needs your department's input on potential impacts to the law enforcement. The purpose of this letter is to request information from the Cerritos Sheriff's Station regarding the project.

Project Location and Description

Portions of the project site are located within the City of Cerritos. The County of Orange proposes to repave the existing Coyote Creek bikeway and to also create connected bikeway along Coyote Creek that would connect a larger network of bikeways called the OC Loop. The portion of the project that would be within the City of Cerritos would start at Station 10+00, where the Coyote Creek divides into its north and northeast forks and extend along Coyote Creek until its intersection with Valley View Street. See attached project location map and conceptual site plan. Please note that the proposed project would not increase the population within the city.

It would be much appreciated if you would please answer the questions below via email no later than Friday, March 20, 2020.

Please send your answers to me at **vpaitimusa@ultrasystems.com**. If you have any questions I can be reached via email or by phone at: (626) 512-5111.

1. Where is the nearest Sherriff's station that would serve OC Loop Segments O, P and Q and what apparatus and personnel are located at that station?

2. What is the average response time and crime statistics for the project area?

3. Would this project require construction of new law enforcement facilities to meet existing law enforcement demands, in addition to the demands of the proposed project?

4. Does the Sherriff's Department anticipate any potential environmental impacts from the proposed project related to providing law enforcement service to the project site?

5. Could the proposed project have potentially significant impacts on the Sherriff Department's level of service and/or response times?

6. If the proposed project has the potential to impact the Sheriff Department's level of service and/or response times, what mitigation, if any, do you recommend to reduce potential impacts?

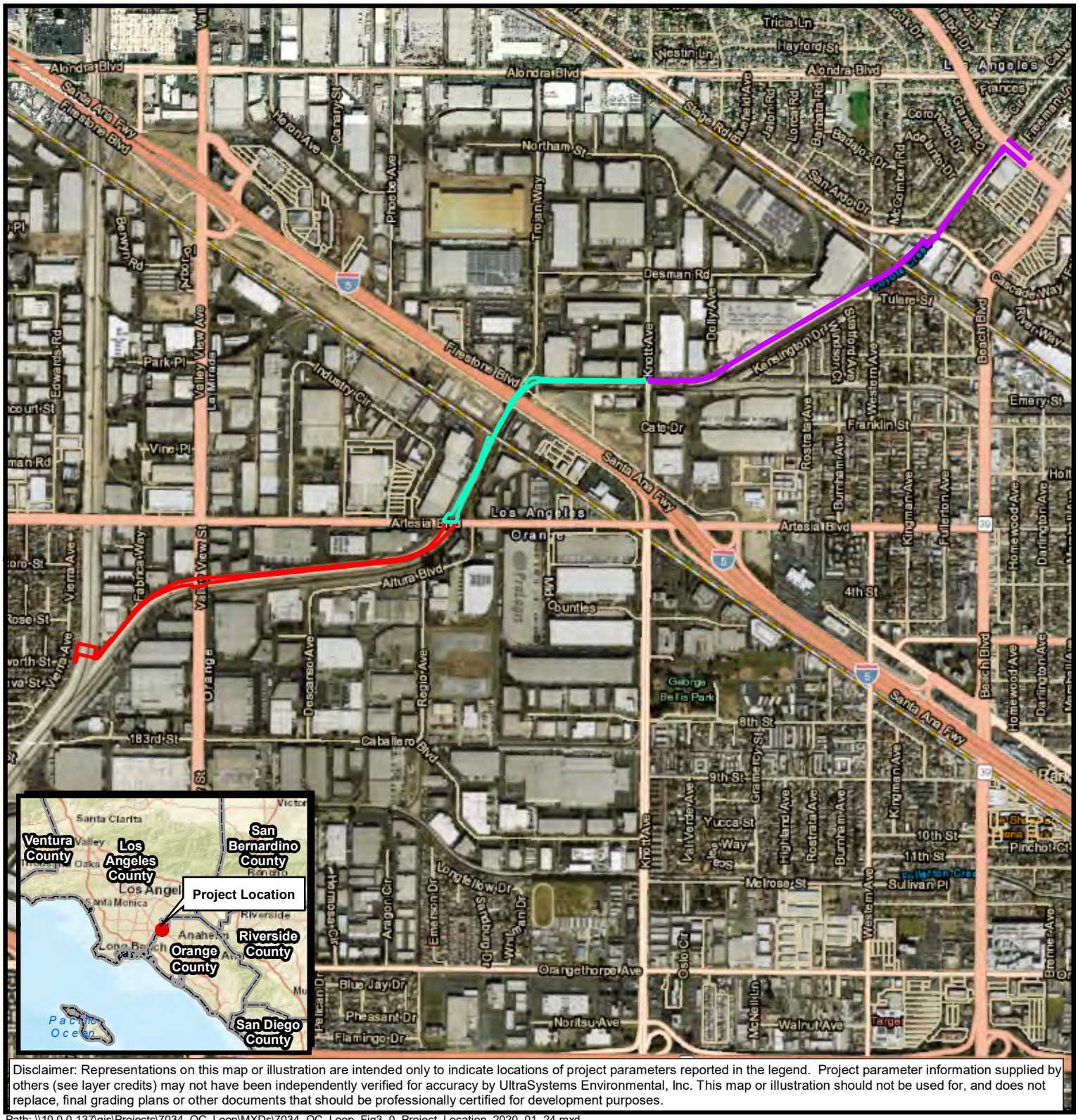
7. Are there any other issues you see with the proposed project related to law enforcement services? If so, please describe.

Best Regards,

Victor Paitimusa, Associate Planner
UltraSystems Environmental, Inc.
16431 Scientific Way
Irvine, CA 92618
T: (626) 512-5111
vpaitimusa@ultrasystems.com

Attachments:

- Project Location Map



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Scale: 1:19,200

N

0 800 1,600 Feet

0 200 400 Meters

Legend

Project Boundary

- Segment O
- Segment P
- Segment Q

OC Loop Segments O, P, and Q

Project Location

UltraSystems environmental • management • planning

From: Campomanes, Rochelle E. <RECampom@lasd.org>
Sent: Wednesday, April 22, 2020 7:55 AM
To: Victor Paitimusa <vpaitimusa@ultrasystems.com>
Subject: Re: EIR - OC Loop (RFI)

Good Afternoon Mr. Paitimusa,

Please find the attached file for our review comments for the project mentioned above.

Please let me know if you have any comments or questions. Thank you very much.

Rochelle Campomanes, LEED AP
Departmental Facilities Planner I
Facilities Planning Bureau
Tel: 323-526-5614

Los Angeles County
Sheriff's Department

OFFICE OF THE SHERIFF

COUNTY OF LOS ANGELES

HALL OF JUSTICE

ALEX VILLANUEVA, SHERIFF

April 22, 2020

Victor Paitimusa, Associate Planner
UltraSystems Environmental, Inc.
16431 Scientific Way
Irvine, California 92618

Dear Mr. Paitimusa:

REQUEST FOR SHERIFF'S DEPARTMENT SERVICE INFORMATION IN PREPARATION OF AN INITIAL STUDY MITIGATED NEGATIVE DECLARATION OC LOOP SEGMENTS O, P AND Q PROJECT

Thank you for inviting the Los Angeles County Sheriff's Department (Department) to provide information and responses to specific questions to be addressed under the California Environmental Quality Act (CEQA) in preparation of an Initial Study/Mitigated Negative Declaration (IS/MND), for the OC Loop Segments O, P and Q Project (Project). The proposed Project is located along the Coyote Creek where it divides into its north and northeast forks and extends until its intersection with Valley View Street, in the City of Cerritos (City). The proposed Project would involve repaving the existing Coyote Creek bikeway and also creating new bikeway connections to a larger bike path network.

The proposed Project is located within the service area of the Cerritos Sheriff's Station (Station). Accordingly, the Station reviewed the consultant request and provides the attached responses (see correspondence dated April 22, 2020, from Captain Minh Dinh).

Should you have any questions regarding this matter, please contact me, at (323) 526-5657, or your staff may contact Ms. Rochelle Campomanes, at (323) 526-5614.

Sincerely,

ALEX VILLANUEVA, SHERIFF

Tracey Jue, Director
Facilities Planning Bureau

SH-AD-32A (8/17)

COUNTY OF LOS ANGELES

SHERIFF'S DEPARTMENT

"A Tradition of Service Since 1850"

DATE: April 22, 2020
FILE NO:

OFFICE CORRESPONDENCE

FROM: MINH G. DINH, CAPTAIN
CERRITOS STATION

TO: TRACEY JUE, DIRECTOR
FACILITIES PLANNING BUREAU

SUBJECT: **RESPONSE TO REQUEST FOR SHERIFF'S DEPARTMENT SERVICE INFORMATION FOR THE PROPOSED OC LOOP SEGMENTS O, P AND Q PROJECT**

The Cerritos Sheriff's Station (Station) reviewed the March 2020 Notice of Preparation (NOP) of an Initial Study Mitigated Negative Declaration (IS/MND) with Request for Information (RFI) for the OC Loop Segments O, P and Q Project (Project) located along where the Coyote Creek divides into its north and northeast forks and extend along Coyote Creek until its intersection with Valley View Street, in the City of Cerritos (City).

The proposed Project would repave the existing Coyote Creek bikeway and also to create connected bikeway along Coyote Creek that would connect a larger network of bikeways. The proposed Project is within the service area of the Station, which is approximately 2.1 miles from the Project site. An IS/MND will be prepared for the Project.

The questionnaire below is formatted to correspond with the format of the Request:

1. **Where is the nearest Sherriff's station that would serve OC Loop Segments O, P and Q, and what apparatus and personnel are located at that station?**

The Project site is within the Station's service area. The proposed Project is approximately 2.1 miles from the Station.

2. **What is the average response time and crime statistics for the project area?**

The Station's average or anticipated response times for emergent, priority, and routine calls for service received from the proposed Project are 3.8, 6.4, and 16.5 minutes, respectively. (Please note these are approximate time

ranges only and could be affected by traffic conditions and these response times are variable because the responding unit may be elsewhere within the Station's service area and not necessarily dispatched from the Station itself.)

3. **Would this project require construction of new law enforcement facilities to meet existing law enforcement demands, in addition to the demands of the proposed project?**

This Project will not require an immediate need for a new construction or expansion of the Station's existing facilities as it does not directly impact on an increase in the number of staffing for law enforcement services.

4. **Does the Sherriff's Department anticipate any potential environmental impacts from the proposed project related to providing law enforcement service to the project site?**

There is no significant environmental impact from the proposed Project on the Station's law enforcement services.

5. **Could the proposed project have potentially significant impacts on the Sherriff's Department's level of service and/or response times?**

The Station is currently understaffed. Assigning additional personnel to the Station to meet an acceptable service ratio will not exacerbate the current shortage of space and attendant assets. Any expansion of the Station, or construction of new facilities, should not only account for the current shortage, but should also accommodate additional personnel and assets that will become necessary as our service area continues to experience growth and intensification of land uses. Historically, while the area has been closed for public use and no empirical data was specifically collected on this particular segment of the land, the Station has been and continues to provide police services for this area, which is incorporated within Reporting District 2316. Foreseeably, the criminal activities may take place on the proposed bike path as a result of it being opened for public use. Hence, it may have an impact on the level of service and/or response time.

6. **If the proposed project has the potential to impact the Sheriff Department's level of service and/or response times, what mitigation, if any, do you recommend to reduce potential impacts?**

The Station recommends that an analysis and impacts of the proposed Project to the local transportation and circulation system also be included in the EIR. Traffic levels at intersections must be identified, studied and analyzed. Preparation of a Construction Mitigation Plan would also help in reducing impacts to traffic levels. A Construction Traffic Management Plan should also be implemented as part of the proposed Project to address construction-related traffic congestion and emergency access issues. If temporary lane closures are necessary for the installation of utilities, emergency access should be maintained at all times. Flag persons and/or detours should also be provided as needed to ensure safe traffic operations, and construction signs should be posted to advice of reduced construction zone speed limits. Additionally, the proposed plan must include entry/exit gate(s) for first responders' vehicles to gain access to the proposed bike path, in case the Station receives rescue or emergent call-for services at this location. The entry/exit gate(s) will reduce our response time to aid potential victims on the bike path. The Station also recommends an ongoing regular maintenance along the bike path should be provided to deter crime, including any proposed landscaping.

7. **Are there any other issues you see with the proposed project related to law enforcement services? If so, please describe.**

Other than responses to the Items 5 and 6, the Station currently does not have any other concerns related to the proposed Project. However, the Station reserves the right to amend our assessment, if necessary, upon subsequent reviews for the proposed Project.

Thank you for including the Station in the environmental review process for the Project. Should you have any questions regarding this matter, please contact me or staff at (562) 860-0044.

MGD:mgd

UltraSystems
environmental•management•planning

March 13, 2020

Fire Captain Hoffman
County of LA Fire Department
1320 N. Eastern Avenue
Los Angeles, CA 90063
cheryl.hoffman@fire.lacounty.gov

RE: Information Request Letter for the OC Loop Segments O, P and Q Project

Dear Fire Captain Hoffman,

UltraSystems has been hired by the County of Orange to conduct environmental analysis for the proposed OC Loop Segments O, P and Q Project (project). As a whole, the proposed project involves the construction and operation of a 2.7-mile Class I Bikeway component of a larger and longer 66-mile regional bikeway corridor called the OC Loop. Comprised of OC Loop Segments O, P, and Q, the new proposed facilities, scheduled to become part of the Coyote Creek Bikeway, would be located along the northwest Orange County/southwest Los Angeles County border from its point of origin along the Coyote Creek storm drain channel in the City of Cerritos on the south to the City of Buena Park to the north. UltraSystems is analyzing potential environmental impacts of the proposed project, including potential impacts on public services, include fire protection services. UltraSystems will be writing an Initial Study Mitigated Negative Declaration (IS/MND) for the project and needs your department's input on potential impacts to the Fire Department. The purpose of this letter is to request information from the LA County Fire Authority regarding the proposed project.

Project Location and Description

Portions of theproject site are located within the City of La Mirada. The County of Orange proposes to repave the existing Coyote Creek bikeway and to also create a connected bikeway along Coyote Creek that would connect a larger network of bikeways called the OC Loop. Two portions of the proposed project are proposed within the City of La Mirada. The first portion of the bike trail within the city would start north of the intersection of the Coyote Creek and Artesia Boulevard, and travel along the Coyote Creek until its intersection with Knott Avenue. The second portion would be a small portion of Coyote Creek between Knott Avenue and Stage Road. See attached project location map and conceptual site plan. Please note that the proposed project would not increase the population within the city.

It would be much appreciated if you would please answer the questions below via email no later than Friday, March 20, 2020.

Please send your answers to me at **vpaitimusa@ultrasystems.com**. If you have any questions I can be reached via email or by phone at: (626) 512-5111.

1. Where is the nearest fire station that would serve OC Loop Segments O, P and Q Project and what apparatus and personnel are located at that station?

2. Would this project require construction of new fire department facilities to meet existing fire demands, in addition to the proposed project's demands?

3. Does the Fire Department anticipate any potential environmental impacts from the proposed project related to providing fire service to the project site?

4. What is the Fire Department's existing average response time and are the Department's response time goals currently being met?

5. Could the proposed project have potentially significant impacts on the Fire Department's level of service and/or response times?

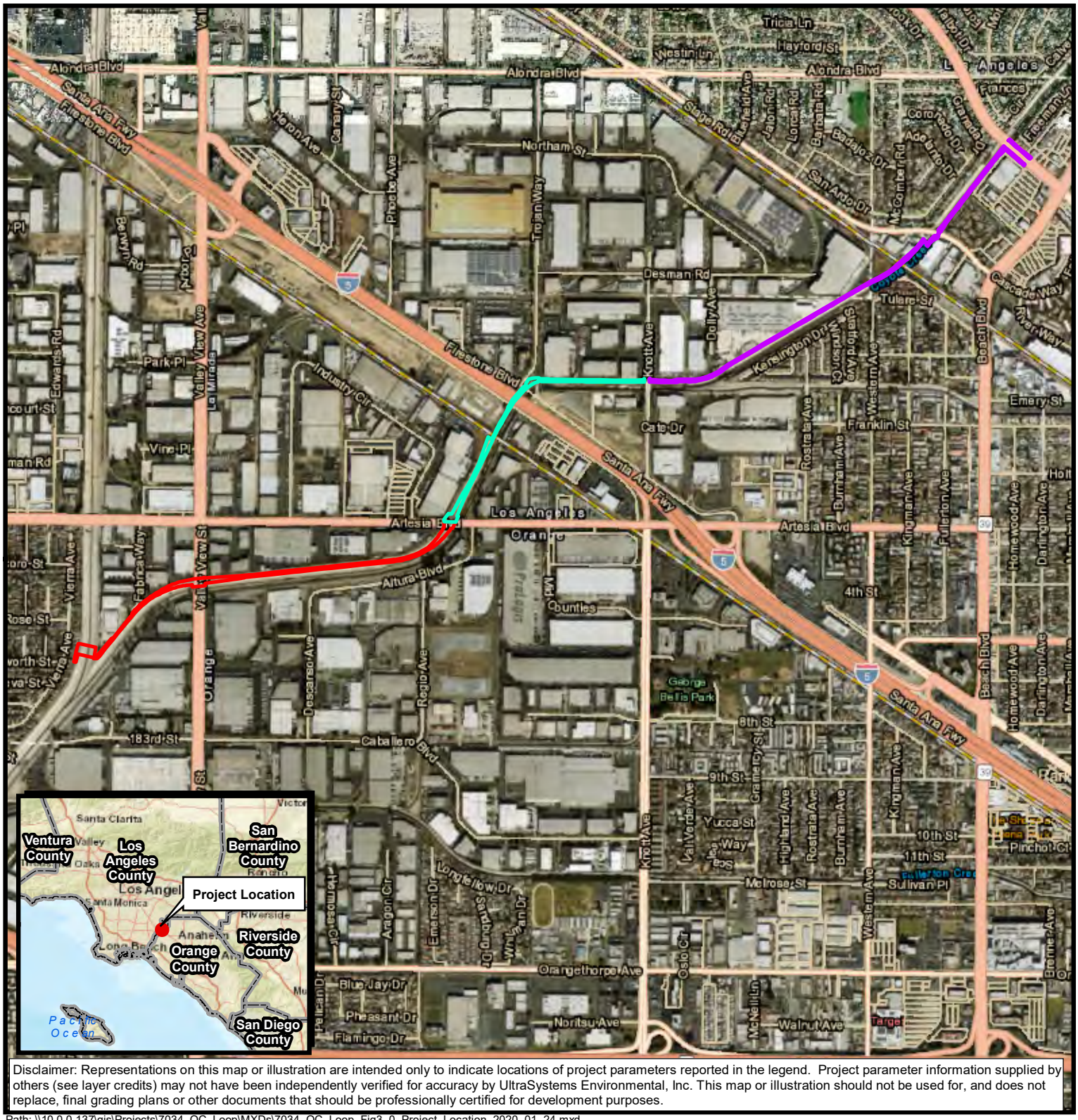
6. If the proposed project has the potential to impact the Fire Department's level of service and/or response times, what mitigation, if any, do you recommend to reduce potential impacts?

7. Are there any other issues you see with the proposed project related to fire service? If so, please describe.

Best Regards,

Victor Paitimusa, Associate Planner
UltraSystems Environmental, Inc.
16431 Scientific Way
Irvine, CA 92618
T: (626) 512-5111
vpaitimusa@ultrasystems.com

Attachments:
- Project Location Map



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: \\10.0.0.137\gis\Projects\7034_OC_Loop\MXDs\7034_OC_Loop_Fig3_0_Project_Location_2020_01_24.mxd

February 07, 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, Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; County of Orange Public Works, 2020; UltraSystems Environmental, Inc., 2020

Scale: 1:19,200

N

0 800 1,600 Feet

0 200 400 Meters

Legend

Project Boundary

- Segment O
- Segment P
- Segment Q

OC Loop Segments O, P, and Q

Project Location

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On Mon, Apr 20, 2020 at 11:46 AM Hoffman, Cheryl <Cheryl.Hoffman@fire.lacounty.gov> wrote:

1. Segment O and P: Fire Station 35, 13717 Artesia Blvd, Cerritos, One Engine 3 crews member
   Segment Q: Fire Station 49, 13820 La Mirada Blvd, La Mirada, One Engine 3 crew members
   one paramedic squad, 2 crew members
2. No new facilities needed
3. No known environmental impacts
4. response times 0-5 minutes,
5. none
6. none

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March 13, 2020

Jim Tatreau
La Mirada Sherriff's Station
13716 La Mirada Boulevard
La Mirada, CA 90638
jdtatrea@lasd.org

RE: Information Request Letter for the OC Loop Segments O, P and Q Project

Dear Sir,

UltraSystems has been hired by the County of Orange to conduct environmental analysis for the proposed OC Loop Segments O, P and Q Project (project). As a whole, the proposed project involves the construction and operation of a 2.7-mile Class I Bikeway component of a larger and longer 66-mile regional bikeway corridor called the OC Loop. Comprised of OC Loop Segments O, P, and Q, the new proposed facilities, scheduled to become part of the Coyote Creek Bikeway, would be located along the northwest Orange County/southwest Los Angeles County border from its point of origin along the Coyote Creek storm drain channel in the City of Cerritos on the south to the City of Buena Park to the north. UltraSystems is analyzing potential environmental impacts of the proposed project, including potential impacts on public services, including law enforcement. UltraSystems will be writing an Initial Study Mitigated Negative Declaration (IS/MND) for the project and needs your department's input on potential impacts to law enforcement. The purpose of this letter is to request information from the La Mirada Sheriff's Station regarding the project.

Project Location and Description

Portions of the project site are located within the City of La Mirada. The County of Orange proposes to repave the existing Coyote Creek bikeway and to also create a connected bikeway along Coyote Creek that would connect a larger network of bikeways called the OC Loop. There would be two portions of the proposed bikeway within the City of La Mirada. The first portion would start north of the intersection of the Coyote Creek and Artesia Boulevard, and travel along the Coyote Creek until its intersection with Knott Avenue. The second portion would be a small portion of Coyote Creek between Knott Avenue and Stage Road. See attached project location map and conceptual site plan. Please note that the proposed project would not increase the population within the city.

It would be much appreciated if you would please answer the questions below via email no later than Friday, March 20, 2020.

Please send your answers to me at **vpaitimusa@ultrasystems.com**. If you have any questions I can be reached via email or by phone at: (626) 512-5111.

1. Where is the nearest Sherriff's station that would serve OC Loop Segments O, P and Q and what apparatus and personnel are located at that station?

2. What is the average response time and crime statistics for the project area?

3. Would this project require construction of new law enforcement facilities to meet existing law enforcement demands, in addition to the demands of the proposed project?

4. Does the Sherriff's Department anticipate any potential environmental impacts from the proposed project related to providing law enforcement service to the project site?

5. Could the proposed project have potentially significant impacts on the Sherriff Department's level of service and/or response times?

6. If the proposed project has the potential to impact the Sheriff Department's level of service and/or response times, what mitigation, if any, do you recommend to reduce potential impacts?

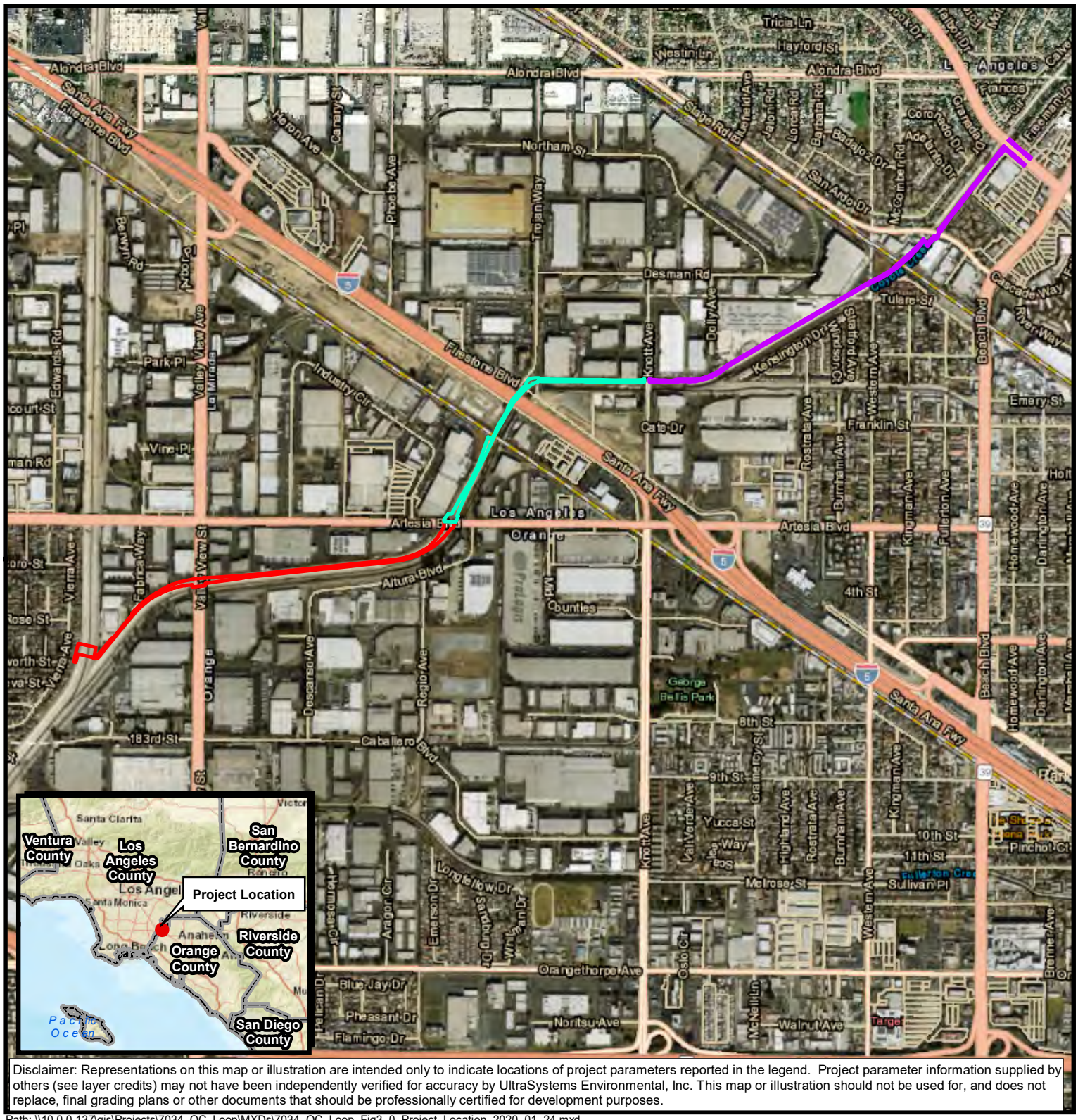
7. Are there any other issues you see with the proposed project related to law enforcement services? If so, please describe.

Best Regards,

Victor Paitimusa, Associate Planner
UltraSystems Environmental, Inc.
16431 Scientific Way
Irvine, CA 92618
T: (626) 512-5111
vpaitimusa@ultrasystems.com

Attachments:

- Project Location Map



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February 07, 2020

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Scale: 1:19,200

N

0 800 1,600 Feet

0 200 400 Meters

Legend

Project Boundary

- Segment O
- Segment P
- Segment Q

OC Loop Segments O, P, and Q

Project Location

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To: Tatreau, James D.

Subject: RE: OC Loop Police Information Request Letter

From: Tatreau, James D. <jdtatrea@lasd.org>
Sent: Tuesday, March 17, 2020 10:39 AM
To: vpaitimusa@ultrasystems.com
Subject: FW: OC Loop Police Information Request Letter

Below are the answers from the Norwalk Sheriff's Station related to this proposed project, as requested.

1. Where is the nearest Sherriff's station that would serve OC Loop Segments O, P and Q and what apparatus and personnel are located at that station?

The Norwalk Sheriff's Station and it's substation, the La Mirada Community Substation, would serve the area. Both are staffed with round-the-clock patrol deputy personnel. Norwalk Station houses the jail, jailers and 9-1-1 dispatch center for the area.

2. What is the average response time and crime statistics for the project area?

Average response time for emergent calls is 3.8 minutes, priority calls is 9.8 minutes and routine calls is 40 minutes. Crime statistics in the area for 2019 saw a 15% decrease in Part 1 crime overall.

3. Would this project require construction of new law enforcement facilities to meet existing law enforcement demands, in addition to the demands of the proposed project?

Corporate Office – Orange County Telephone: 949.788.4900
16431 Scientific Way Facsimile: 949.788.4901
Irvine, CA 92618-4355 Website: www.ultrasystems.com

No.

4. Does the Sherriff's Department anticipate any potential environmental impacts from the proposed project related to providing law enforcement service to the project site?

No.

5. Could the proposed project have potentially significant impacts on the Sherriff Department's level of service and/or response times?

Not likely to have significant impacts.

6. If the proposed project has the potential to impact the Sheriff Department's level of service and/or response times, what mitigation, if any, do you recommend to reduce potential impacts?

It does not.

7. Are there any other issues you see with the proposed project related to law enforcement services? If so, please describe.

No.

From: Victor Paitimusa [mailto:vpaitimusa@ultrasystems.com]
Sent: Friday, March 13, 2020 5:11 PM
To: Tatreau, James D. <jdtatrea@lasd.org>
Cc: margaret partridge <mpartridge@ultrasystems.com>; Betsy lindsay <blindsay@ultrasystems.com>
Subject: OC Loop Police Information Request Letter

Good evening Jim Tatreau,

My name is Victor Paitimusa and I am an environmental planner who is working with the County of Orange to develop a bikeway project called the OC Loop. As part of this project, we need to determine if the project would affect the La Mirada Sheriff's Station by having you answer the questions in the attachment below. The attachment below will describe the project information, have a project location map and have questions we would like you to answer. If you could answer our questions by Friday, March 20, 2020, we would greatly appreciate it. Please let me know if you have any questions. You may reach me at this email or my cell at (626) 512-5111. We thank you for your time.

--

Best,

Victor Paitimusa | Associate Planner

UltraSystems Environmental | WBE/DBE/SBE/8(m) WOSB

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T: 949/788.4900 X283 | F: 949/788-4901

Website: www.ultrasystems.com

E-mail: vpaitimusa@ultrasystems.com

APPENDIX I

DRAFT HYDRAULICS STUDY

OC Loop Bikeway Segments OPQ

Hydraulics Study
Artesia Blvd. & Valley View Street Undercrossings

Prepared For:

ORANGE COUNTY PublicWorks

Draft Submittal
July 1, 2020
Revision No. 1
August 19, 2020

Table of Contents

Appendix Index

1. Introduction

1.1 Purpose of the Report

The purpose of this Location Hydraulics Study (Study) is to provide the Hydrology and Hydraulic basis for the existing conditions and evaluation of the proposed improvements along Coyote Creek at proposed undercrossings at Valley View Street and Artesia Boulevard. This Study is being prepared in conjunction with Improvement Plans and CEQA/NEPA Documents for OC Loop Bikeway Segments OPQ.

1.2 Goals and Objectives

This Study provides a detailed methodology for establishing the existing high confidence (HC) flow rates along the project limits with a focus on two proposed bridge under crossings that require encroachment into and modification to the existing improved Coyote Creek Channel. This study utilizes a steady state analysis performed in HEC-RAS for both the existing and proposed conditions to document the channel flow characteristics for each condition.

The primary goal and objectives of this study include the following:

- Research, collect, and review previous hydrology and hydraulic studies, as-built / record information, and improvement plans along the study area and project reaches.
- Develop high confidence flow rates for analysis of the existing Coyote Creek Channel
- Model the proposed and existing condition using the HEC-RAS platform developed by the US Army Corp of Engineers (ACOE).
- Prepare a hydraulic analysis one-thousand feet (1,000') upstream and downstream of the Valley View Street and Artesia Boulevard bridge crossings.

2. Project Information

2.1 Project Description

The Orange County Loop (OC Loop) is primarily a Class I bikeway facility accommodating bicyclists and pedestrians and is located in the northwestern portions of Orange County, California. When completed, the 66-mile loop will provide commuting & recreational opportunities for users and will link important regional facilities such as the Santa Ana River Bikeway, the Coastal Bikeway, the San Gabriel River Bikeway and the Coyote Creek Bikeway.

A 2.7 mile gap in the OC Loop, designated as Segments O, P, and Q, currently exists along the Coyote Creek Channel. This gap is located upstream and downstream of the Santa Ana Freeway (I-5), beginning at the North Fork Channel confluence and ending at La Mirada Blvd. bridge crossing. The Orange County Bike Loop O/P/Q Segments Project (Project) proposes to close the existing gap through the construction of a Class I bikeway along the Coyote Creek Channel.

2.2 Project Location and Setting

The Project begins at the existing Coyote Creek Bikeway, in the city of Cerritos in Los Angeles County, where the Coyote Creek North Fork Channel and the Coyote Creek Channel confluence. Construction of the bikeway is proposed continue east along the Coyote Creek Channel for approximately 2.7 miles where a connection to a segment of the Coyote Creek Bikeway at La Mirada Blvd. in the city of Buena Park exists. Project construction will occur in both Los Angeles and Orange Counties along the 2.7 mile stretch of Coyote Creek Channel. The majority of the property required for the project is owned by the Los Angeles County Flood Control District.

2.3 Purpose and Need for Project

The Project is a safety and mobility enhancement for Orange County 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 Fourth District Bikeways Strategy report, 2014 County of Orange General Plan, and the 2015 OC Loop Gap Feasibility Study (OC Parks).

The Project, as part of a comprehensive and complete bicycle network, will greatly benefit Orange County residents and visitors by enhancing safety and mobility for non-motorized users, advance efforts to achieve greenhouse gas reduction goals, improve aesthetics, access and maintenance to the flood control channel, and enhance public health.

2.4 Proposed Improvements

Proposed improvements that occur within the Coyote Creek Channel occur at two places, the under crossing at Valley View Street, and the undercrossing at Artesia Boulevard. The undercrossing at Valley View Street proposes to modify the channel cross section to include a 12’ wide concrete bike path “cut into” the northern (left side looking upstream) side of the channel, and the undercrossing at Artesia Boulevard proposes to install a hybrid bike path “cut into” the northern (left side looking upstream) side of the channel adjacent to the abutment with a cantilevered section to provide a complete 12’ wide bike path.

The channel cross section under Valley View will increase in cross sectional area in the locations where the bike path is constructed. The bike path will match the existing side slope of the channel on the inside edge of the bike path, and on the outside edge a vertical wall will be constructed from the bike path elevation to the elevation of the existing channel side slope. The maximum slopes down into and up out of the undercrossing are 5%. The vertical clearance from the top of the bike path to the bridge soffit is eleven (11) feet minimum.

The channel cross section under Artesia Boulevard will increase the sectional area in the locations where the bike path in constructed. The northern channel wall is vertical and where the bike path dips below the existing top of wall the channel will be widened and a new vertical wall constructed along the channel/bike path edge interface. As the bike path meanders into the channel cross section to avoid the existing abutments, it will cantilever over the channel for a portion of the bike path width, to provide a 13’ bike path. The maximum ingress and egress slopes into and out of the under crossing are 5%. The minimum vertical clearance from the top of the bike path to the bridge soffit is 9’-3” minimum.

3. Regulatory Setting

3.1 California's National Flood Insurance Program

FEMA is the nationwide administrator of the National Flood Insurance Program (NFIP), which is a program that was established by the National Flood Insurance Act of 1968 to protect lives and property, and to reduce the financial burden of providing disaster assistance. Under the NFIP, FEMA has the lead responsibility for flood hazard assessment and mitigation and offers federally backed flood insurance to homeowners, renters, and business owners in communities that choose to participate in the program. FEMA has adopted the 100-year floodplain as the base flood standard for the NFIP and issues the Flood Insurance Rate Maps (FIRMs) for communities that participate in the NFIP. These FIRMs present delineations of flood hazard zones.

In California, nearly all of the State's flood-prone communities participate in the NFIP, which is locally administered by the California Department of Water Resources' (DWR) Division of Flood Management. Under California's NFIP, communities have a mutual agreement with the State and Federal government to regulate floodplain development according to certain criteria and standards, which is further detailed in the NFIP. Typically, each county (or community) has a Flood Insurance Study (FIS), which is used to locally develop FIRMs and Base Flood Elevations (BFE).

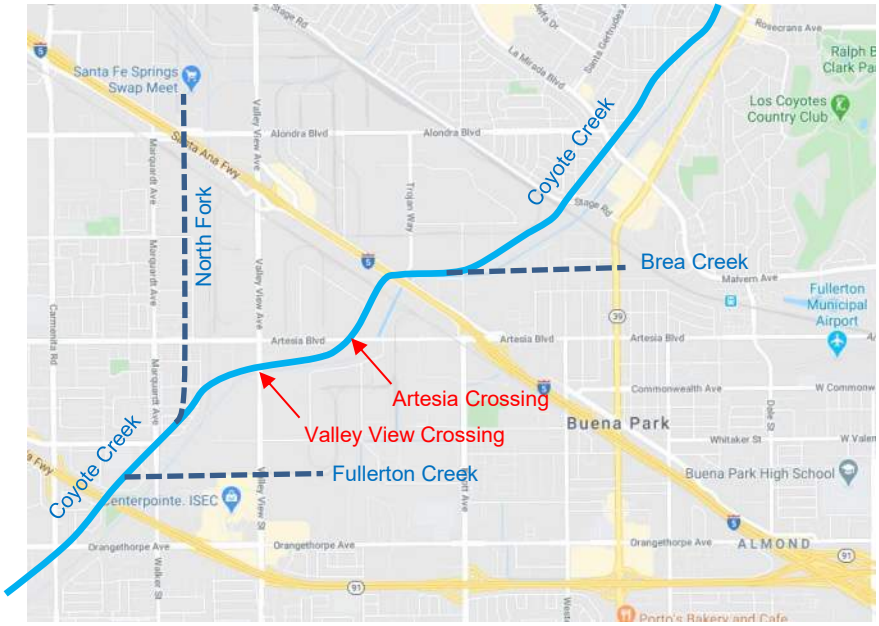
3.2 Coyote Creek between Valley View Street and Artesia Boulevard

According to the most current FIRM maps for the area 1,000' upstream and downstream of each of the two undercrossings, the areas are either unmapped and/or shown to have a 0.2% chance of flooding. Water surface and base flood elevations are not provided. Copies of the FIRM maps have been included in the Appendices.

4. Hydraulic Analysis

4.1 Hydraulic Analysis Summary

Preparation of this hydraulic analysis has been completed in conjunction with the project improvement plans for OC Loop OPQ along Coyote Creek, in north Orange County, including evaluating channel encroachments at two under crossings at Valley View Street and Artesia Boulevard. Below is a summary of the steps to arrive at the 100-Year High Confidence (HC) Flow Rates to be used as the Base Flow Rates in the HecRas model at the undercrossing locations. The high confidence flow rates within Coyote Creek are being used for purposes of establishing existing water surface elevations and to compare against the proposed condition water surface elevations to determine the impact, if any, resulting from the proposed project. In addition, the HC flow rates have been approved for use in this project by Orange County Public Works, and a copy of the correspondence has been included in the Appendices to this Study. The proposed locations for study are shown on the map below.



4.2 Existing Information / Conditions

GHD conducted a search of available information from Orange County Public Works (OCPW), Orange County Flood Control District (OCFCD), Los Angeles County Flood Control District (LAFCD), FEMA, and the Army Corps of Engineering (ACOE) to obtain as-built drawings, hydrology and hydraulics data and reports, and other miscellaneous information. The following list of information summarizes the results of the search and is a list of documents that provide data, flow rates, exhibits, calculations, and/or results, and is included in the Appendices.

- Plans for the Construction of Brea Channel, OCFCD Facility No. A02 – November, 1996
- Army Corps of Engineer's – Plate 4, File No. 198/89 – Coyote Creek Channel Std. Discharges
- Army Corps of Engineer's – Plate 10, File No. 373/120 – Coyote Creek Channel Std. Discharges

The following table summarizes the findings within the above information and other sources related to flow rates along project length within Coyote Creek. See Appendix B illustrating the locations denoted for each of the below flow rates.

Table 4.1 Existing Flow Rate Information

Concentration Point	LACFCD 1935 Plans – Theoretical Q (cfs)	USACE "Design Discharge" Q (cfs)	USACE 100-Year Q (CFS)	1949 Survey Report Q (cfs)	OCHM 100-Year Design Q - HC (cfs)	OCHM 100-Year EV Q (cfs)
CC Above Brea Creek	15,600	15,000		7,500		
Brea Creek D/S of Western		12,000		6,000	8,023	6,710
CC Below Brea Creek	19,500	21,500		13,000		
CC Below North Fork	23,300	37,000		23,000		
CC Below Fullerton Creek		40,000				
Fullerton Creek		13,500				7,700
CC Above San Gabriel River		50,000	38,000	30,000		

CC = Coyote Creek D/S = Downstream HC = High Confidence EV = Expected Value

4.3 Proposed Methodology

Table 4.1 illustrates the gaps in flow rates across multiple criteria. The Orange County Hydrology Manual permits the use of Expected Value numbers in the analysis of existing facilities, and for purposes of this project, the higher OCHM 100-Year Design Flows (High Confidence Flows) will be used to analyze the existing and proposed conditions 1,000 feet upstream and downstream of the Coyote Creek crossings at Artesia Boulevard and Valley View Street.

In order to determine the high confidence flows for the areas of Coyote Creek from below North Fork to above Brea Creek, the following ratio was used to establish a conversion factor to calculate the high confidence flow rate for this analysis. The conversion factor is based upon known flow rates for Break Creek downstream of Western, and is as follows:

(OCHM 100-Year High Confidence / USACE Design Discharge) = Conversion Factor

8,023 cfs / 12,000 cfs = 0.669

USACE Design Discharge x **0.669** = OCHM 100-High Confidence

To calculate the water surface elevation within Coyote Creek GHD prepared a HecRas model utilizing the Coyote Creek As-Built plans, and verified/updated the model with field survey cross sectional field data and detailed bridge survey data. Calculated high confidence flow rates were then modelled in HecRas for cross sectional analysis to determine the water surface elevation within the existing channel. The downstream water surface elevation was determined by calculating the cross sectional normal depth and used as the downstream control water surface elevation in the HecRas model. Bridge decks, piers, sidewalls, and soffits were modeled using elevation obtained through field topographic survey.

4.4 Proposed High Confidence Flow Rates

Table 4.2 summarizes the results of applying the 0.669 conversion factor to the USACE Design Discharge rates. The rates listed under the OCHM 100-Year Design Q – HC (cfs) column are the rates used in the HecRas model.

Table 4.2 Proposed / High Confidence Flow Rate Information

Concentration Point	LACFCD 1935 Plans – Theoretical Q (cfs)	USACE "Design Discharge" Q (cfs)	USACE 100-Year Q (CFS)	1949 Survey Report Q (cfs)	OCHM 100-Year Design Q - HC (cfs)	OCHM 100-Year EV Q (cfs)
CC Above Brea Creek	15,600	15,000		7,500	10,035	
Brea Creek D/S of Western		12,000		6,000	8,023	6,710
CC Below Brea Creek	19,500	21,500		13,000	14,384	
CC Below North Fork	23,300	37,000		23,000	24,753	
CC Below Fullerton Creek		40,000				
Fullerton Creek		13,500				7,700
CC Above San Gabriel River		50,000	38,000	30,000		

CC = Coyote Creek D/S = Downstream HC = High Confidence EV = Expected Value

5. Results

5.1 Results

Utilizing the high confidence flow rates listed in Table 4.2 resulted in HecRas output illustrating that the flow rates are contained within Coyote Creek for the existing condition. Containment within Coyote Creek is consistent with the FIRM maps, and the area being unmapped. A second HecRas analysis was completed evaluating the proposed improvements. Due to the limitations of the HecRas software platform, the Manning's C value for the cantilever surfaces and vertical wall adjacent to the bike path in cantilever areas was increased to 0.05 (from 0.014) to account for loses that may be incurred due to the cantilever sections. Cross sectional analysis 1,000 feet upstream and downstream of the Valley View Street and Artesia Boulevard is summarized below. HecRas output has been included in the Appendices. Below is a station map/exhibit illustrating where cross sectional analysis was completed, and a subsequent table illustrating the existing versus proposed water surface elevations.

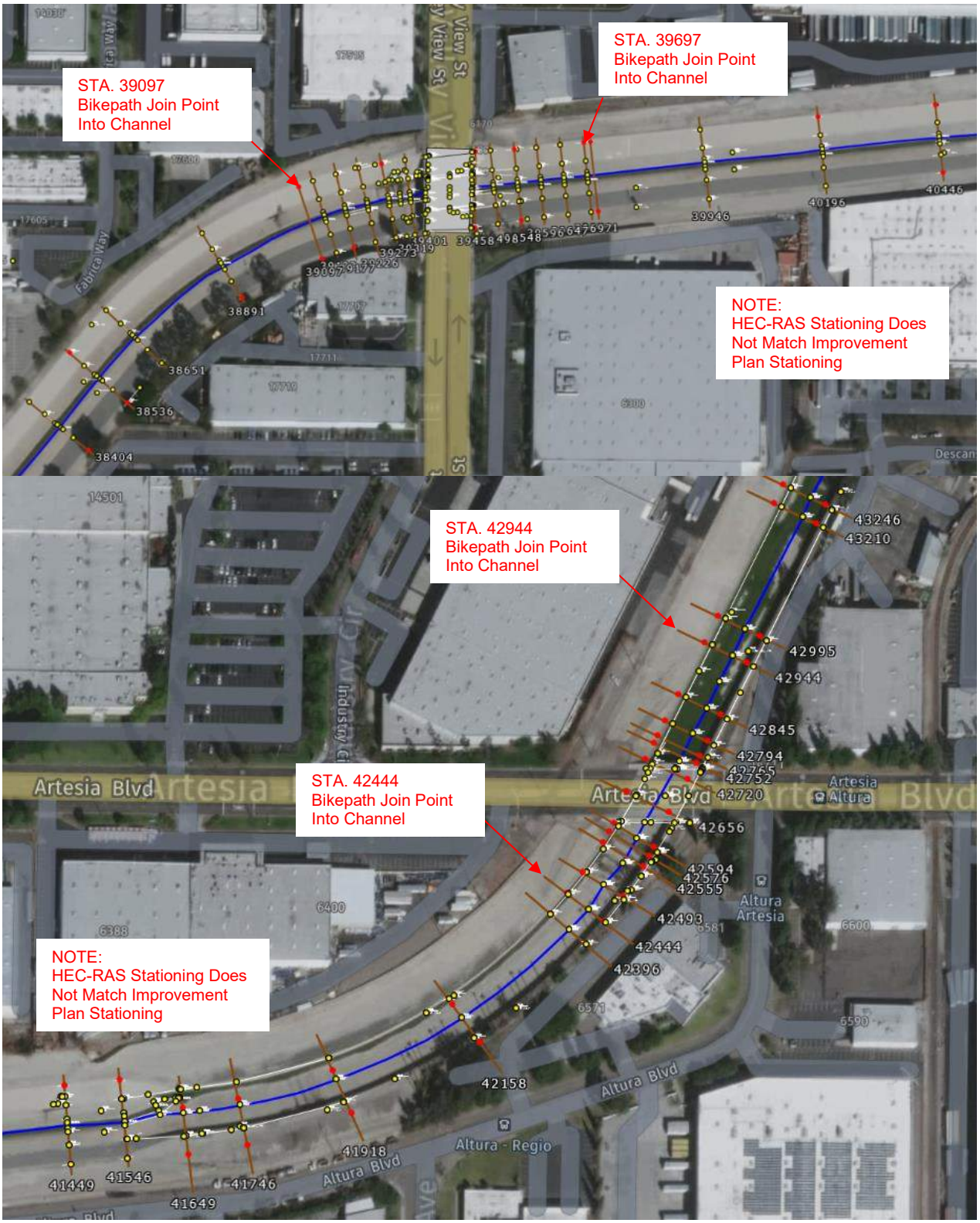

STA. 39097
Bikepath Join Point
Into Channel
STA. 39697
Bikepath Join Point
Into Channel
NOTE:
HEC-RAS Stationing Does
Not Match Improvement
Plan Stationing
STA. 42944
Bikepath Join Point
Into Channel
STA. 42444
Bikepath Join Point
Into Channel
NOTE:
HEC-RAS Stationing Does
Not Match Improvement
Plan Stationing
Artesia Blvd
Altura Blvd
Altura - Regio
Altura
Artesia
Fabrica Way
View St
Industry Ct
38891
38651
38536
38404
39946
40196
40446
43246
43210
42995
42944
42845
42794
42752
42720
42656
42594
42576
42555
42493
42444
42396
42158
41918
41746
41649
41546
41449

Table 5.1 Cross Sectional Analysis Results

River Sta.	Flow Rate – Q (cfs)	Existing W.S. Elev	Proposed W.S. Elev.	Delta	Location
43722	14,384	54.67	54.67	0.00	Channel
43672	14,384	53.88	53.88	0.00	Channel
43531	14,384	53.49	53.49	0.00	Channel
43495	14,384	53.34	53.34	0.00	Channel
43246	14,384	52.99	52.97	-0.02	Channel
43210	14,384	52.98	52.95	-0.03	Channel
42995	14,384	53.01	52.99	-0.02	Channel
42944	14,384	53.00	52.98	-0.02	Channel
42845	14,384	52.51	52.44	-0.07	Upstream
42794	14,384	52.46	52.38	-0.08	Upstream
42765	14,384	52.42	51.80	-0.62	Upstream
42752	14,384	51.71	51.78	0.07	Upstream
42720	14,384	51.57	51.76	0.19	Artesia Bridge
42656	14,384	51.61	51.79	0.18	Artesia Bridge
42594	14,384	51.66	51.83	0.17	Artesia Bridge
42576	14,384	51.35	51.72	0.37	Downstream
42555	14,384	51.32	51.48	0.16	Downstream
42493	14,384	51.65	51.76	0.11	Downstream
42444	14,384	50.69	50.69	0.00	Channel
42396	14,384	50.60	50.60	0.00	Channel
42158	14,384	50.00	50.00	0.00	Channel
41918	14,384	49.53	49.53	0.00	Channel
41746	14,384	49.21	49.21	0.00	Channel
41649	14,384	48.92	48.92	0.00	Channel
41546	14,384	48.37	48.37	0.00	Channel
41449	14,384	48.06	48.06	0.00	Channel
41199	14,384	47.41	47.41	0.00	Channel
40950	14,384	46.79	46.79	0.00	Channel
40699	14,384	46.60	46.63	0.03	Channel
40446	14,384	46.62	46.66	0.04	Channel
40196	14,384	46.76	46.80	0.04	Channel
39946	14,384	46.47	46.52	0.05	Channel
39711	14,384	46.34	46.39	0.05	Channel
39697	14,384	46.32	46.30	-0.02	Channel
39647	14,384	46.31	46.31	0.00	Upstream
39596	14,384	46.27	46.27	0.00	Upstream
39548	14,384	46.29	46.29	0.00	Upstream
39498	14,384	46.46	46.48	0.02	Upstream
39458	14,384	46.69	46.73	0.04	Valley View
39319	14,384	46.46	46.52	0.06	Valley View
39273	14,384	46.42	46.42	0.00	Downstream
39226	14,384	46.42	46.42	0.00	Downstream
39177	14,384	46.38	46.38	0.00	Downstream
39132	14,384	46.33	46.33	0.00	Downstream
39097	14,384	46.31	46.31	0.00	Channel
38891	14,384	46.22	46.22	0.00	Channel
38651	14,384	46.13	46.13	0.00	Channel
38536	14,384	46.03	46.03	0.00	Channel
38404	14,384	45.97	45.97	0.00	Channel

6. Conclusions

Based upon the High Confidence flow rate analysis within Coyote Creek Channel, the proposed improvements have minimal impact to the water surface elevation within the channel at the proposed under crossings. Implementation of the proposed improvements do not cause the water surface to impact existing infrastructure or tributary improvements.

Appendix A
FEMA – FIRM Maps

National Flood Hazard Layer FIRMette

FEMA

118°2'18"W 33°52'19"N

118°1'41"W 33°51'49"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

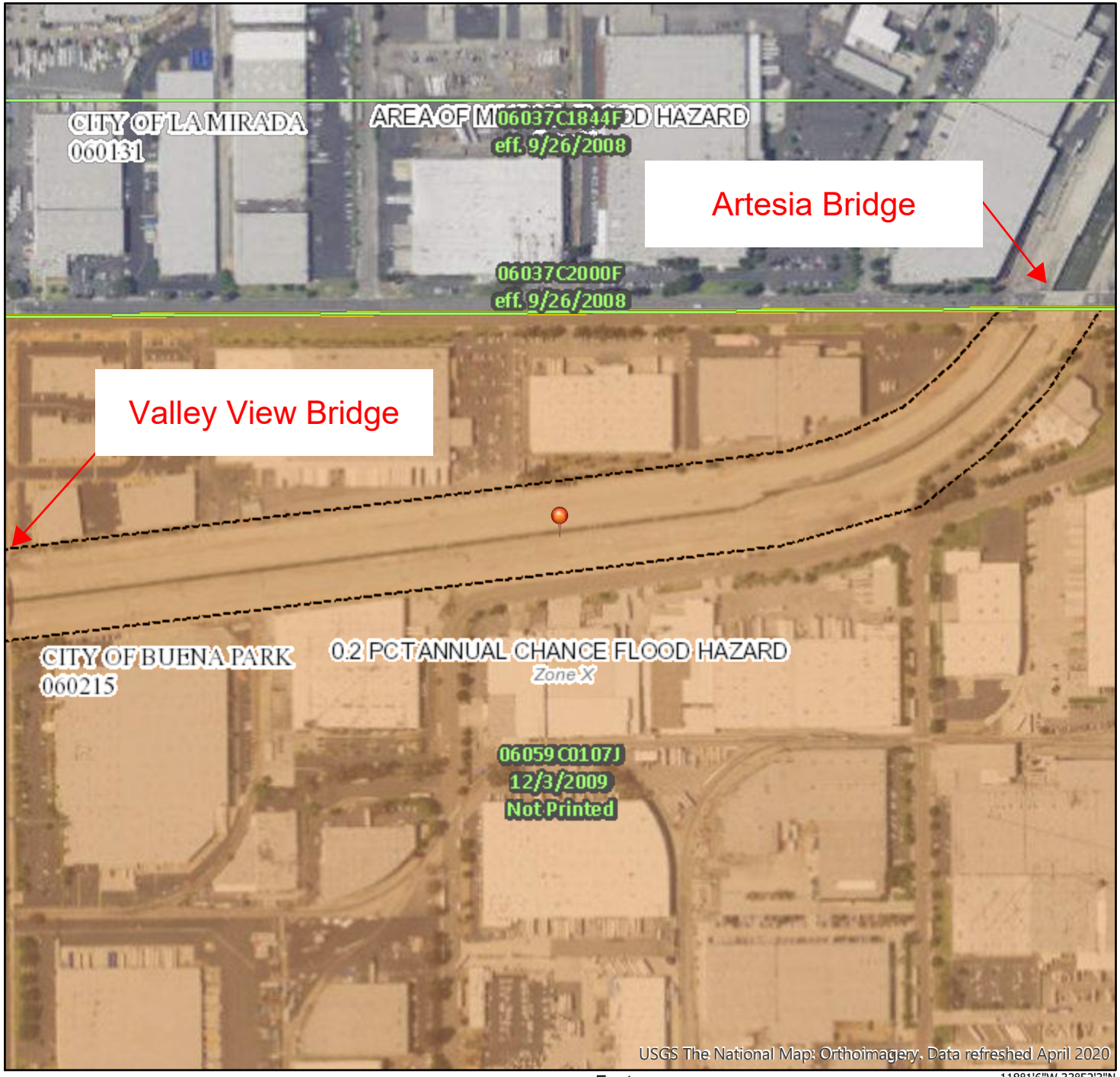
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/30/2020 at 1:16 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

118°1'43"W 33°52'33"N



118°1'6"W 33°52'3"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/30/2020 at 1:23 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

118°1'24"W 33°52'45"N

118°0'46"W 33°52'15"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

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- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/30/2020 at 1:36 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

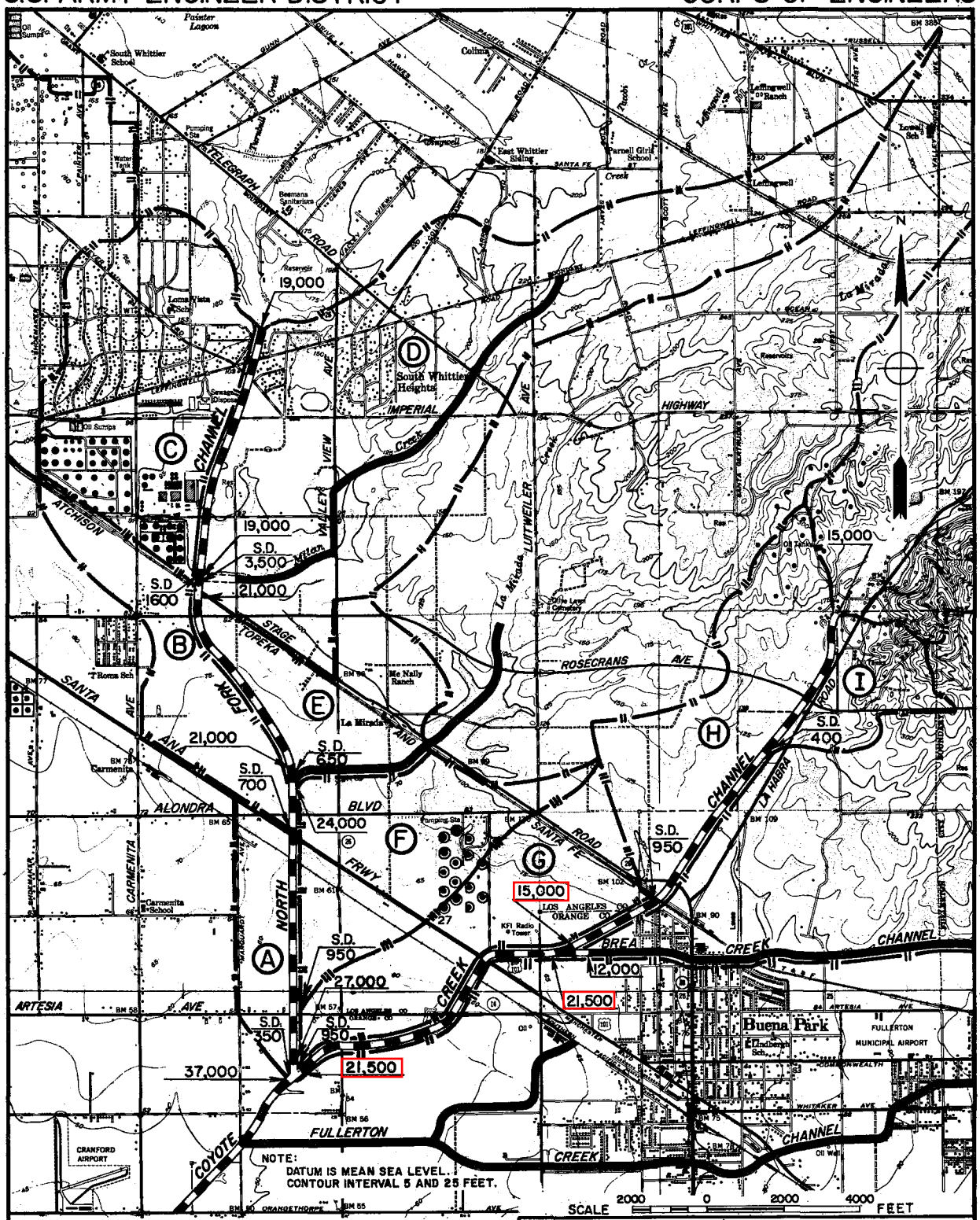
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix B

Record Information

(Reference)

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS



LEGEND

- BOUNDARY OF PROJECT-UNIT DRAINAGE SUBAREA.
- BOUNDARY OF PROJECT-UNIT SIDE-DRAINAGE SUBAREA.
- PROJECT CHANNEL.
- EXISTING CHANNEL.
- PROPOSED CHANNEL BY LOCAL INTERESTS.
- (A) SIDE-DRAINAGE SUBAREA DESIGNATION.
- S.D. / 700 SIDE DRAINAGE DISCHARGE IN CUBIC FEET PER SECOND.
- 37,000 CHANNEL-DESIGN DISCHARGE IN CUBIC FEET PER SECOND.

LOS ANGELES COUNTY DRAINAGE AREA, CALIF.

COYOTE CREEK CHANNELS

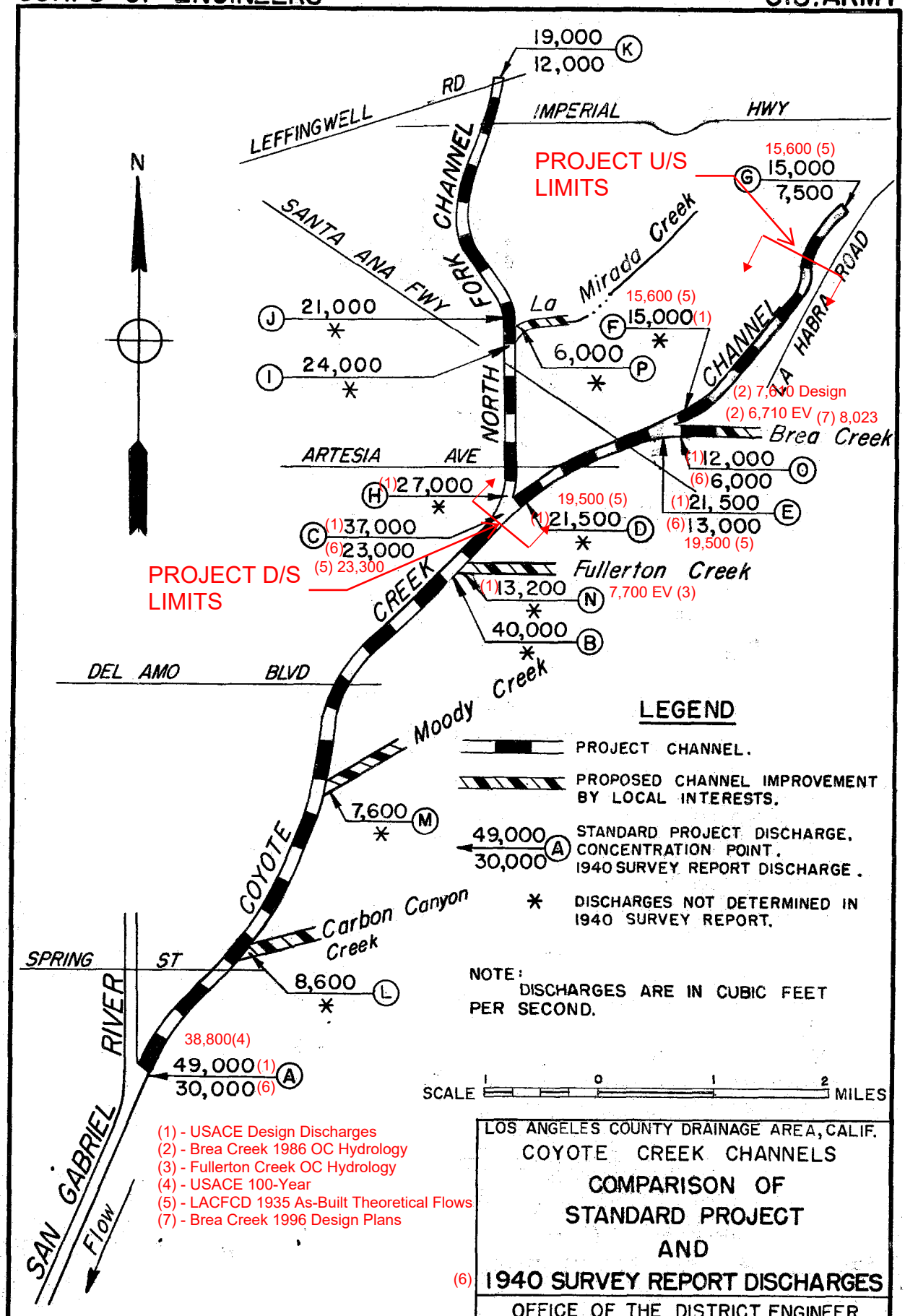
COYOTE CREEK CHANNEL UPSTREAM FROM NORTH FORK AND NORTH FORK CHANNEL

CHANNEL-DESIGN AND SIDE-DRAINAGE DISCHARGES

U.S. ARMY ENGINEER DISTRICT
LOS ANGELES, CORPS OF ENGINEERS
DESIGN MEMO. NO. 3

FILE NO. 198/89 PLATE 4

CORPS OF ENGINEERS U.S.ARMY



LEGEND

PROJECT CHANNEL.

PROPOSED CHANNEL IMPROVEMENT BY LOCAL INTERESTS.

49,000 / 30,000 (A) STANDARD PROJECT DISCHARGE. CONCENTRATION POINT. 1940 SURVEY REPORT DISCHARGE.

* DISCHARGES NOT DETERMINED IN 1940 SURVEY REPORT.

NOTE: DISCHARGES ARE IN CUBIC FEET PER SECOND.

(1) - USACE Design Discharges
(2) - Brea Creek 1986 OC Hydrology
(3) - Fullerton Creek OC Hydrology
(4) - USACE 100-Year
(5) - LACFCD 1935 As-Built Theoretical Flows
(7) - Brea Creek 1996 Design Plans

LOS ANGELES COUNTY DRAINAGE AREA, CALIF.

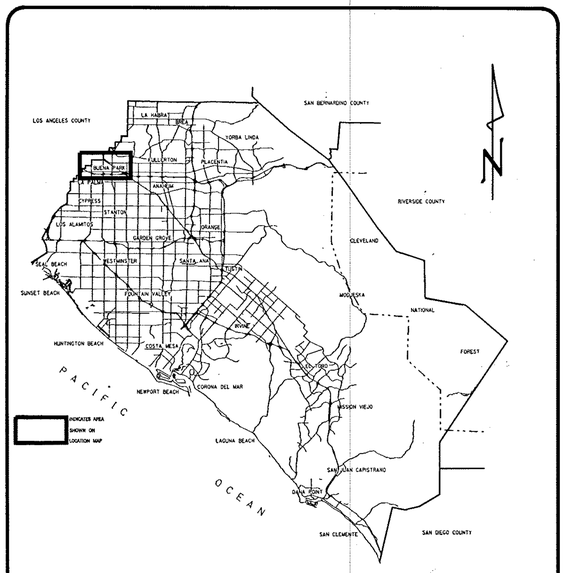
COYOTE CREEK CHANNELS

COMPARISON OF STANDARD PROJECT AND (6) 1940 SURVEY REPORT DISCHARGES

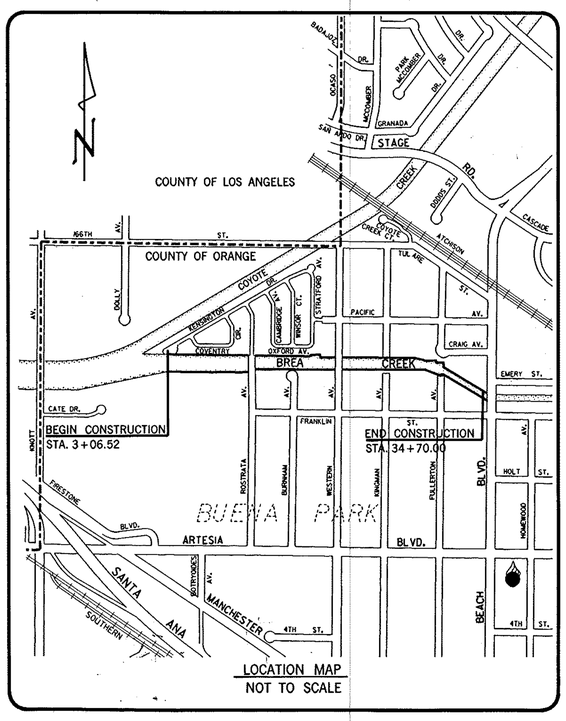
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA
DESIGN MEMO NO. 1 DATED: FEB., 1959

FILE NO. 373/120 PLATE 10

A02-101-5R 1 of 26



VICINITY MAP



LOCATION MAP
NOT TO SCALE

ORANGE COUNTY
ENVIRONMENTAL MANAGEMENT AGENCY

SANTA ANA, CALIFORNIA

JOHN W. SIBLEY, ACTING DIRECTOR

PLANS FOR CONSTRUCTION OF

BREA CREEK CHANNEL

O.C.F.C.D. FACILITY NO. A02

FROM

RECORD DRAWING

250 FT. U/S OF COYOTE CREEK CHANNEL

TO

150 FT. D/S OF BEACH BLVD.

NOVEMBER 1996

FUNDED BY: ORANGE COUNTY FLOOD CONTROL DISTRICT

MAINTAINED BY: ORANGE COUNTY FLOOD CONTROL DISTRICT

INDEX OF SHEETS

UTILITY OWNER	PHONE NO.	CONTACT
1. SOUTHERN CALIFORNIA GAS CO.	(714) 634-3040	RONALD E. REED
2. SOUTHERN CALIFORNIA EDISON CO.	(714) 934-0846	A. J. APARICIO
3. COMCAST CABLE	(714) 582-7655	MIKE BOUNDS
4. CITY OF BUENA PARK (WATER & SEWER)	(714) 562-3685	NABIL HENEIN
5. COUNTY SANITATION DIST. OF O.C.	(714) 962-2411 X5052	CHUCK WINSOR
6. UNDER GROUND SERVICE ALERT (U.S.A.)	(800) 422-4133	

BENCH MARK: 404 – 23 – 86

206 FT. SOUTHEASTERLY ALONG THE ATCHISON TOPEKA AND SANTA FE RAILWAY FROM ITS INTERSECTION WITH THE CENTERLINE PROLONGATION TO THE NORTH OF STANTON STREET.

ADJ. 1976 ELEV. 86.493'

BASIS OF BEARINGS:

THE BASIS OF BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN O.C.S. HORIZONTAL CONTROL STATIONS G.P.S. NO. 3580 AND G.P.S. NO. 3579, BEING N 00°29'15" E PER RECORDS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR. SAID BEARING IS ALSO THE BEARING OF THE CENTERLINE OF WESTERN AVE.

CITY OF BUENA PARK

APPROVED: Donald L. Jensen CITY ENGINEER 10/8/96 DATE

EMA – PUBLIC WORKS

SUBMITTED: Hany S. Henein for FLOOD CONTROL DIVISION MANAGER 10/8/96 DATE

REGISTERED PROFESSIONAL ENGINEER – Hany S. Henein – 33090 – Exp. 6-30-98 – CIVIL – STATE OF CALIFORNIA

RECOMMENDED: James A. Miller ACTING DESIGN DIVISION MANAGER 10-3-96 DATE

REGISTERED PROFESSIONAL ENGINEER – JAMES A MILLER – No. 27177 – Exp. 2-21-97 – CIVIL – STATE OF CALIFORNIA

APPROVED: W L Jam DIRECTOR OF PUBLIC WORKS 10-15-96 DATE

RECORD DRAWINGS

CONTRACTOR : BEL CZAK
INSPECTOR : GEORGE ZAUN
RESIDENT ENGINEER : HERNAN PELAEZ
START DATE : NO DATE
COMPLETION DATE : 09-05-1997

AGREEMENTS

CITY OF BUENA PARK AGREEMENT NO. D96-124

COUNTY SANITATION DIST. OF O.C. AGREEMENT NO. D96-125

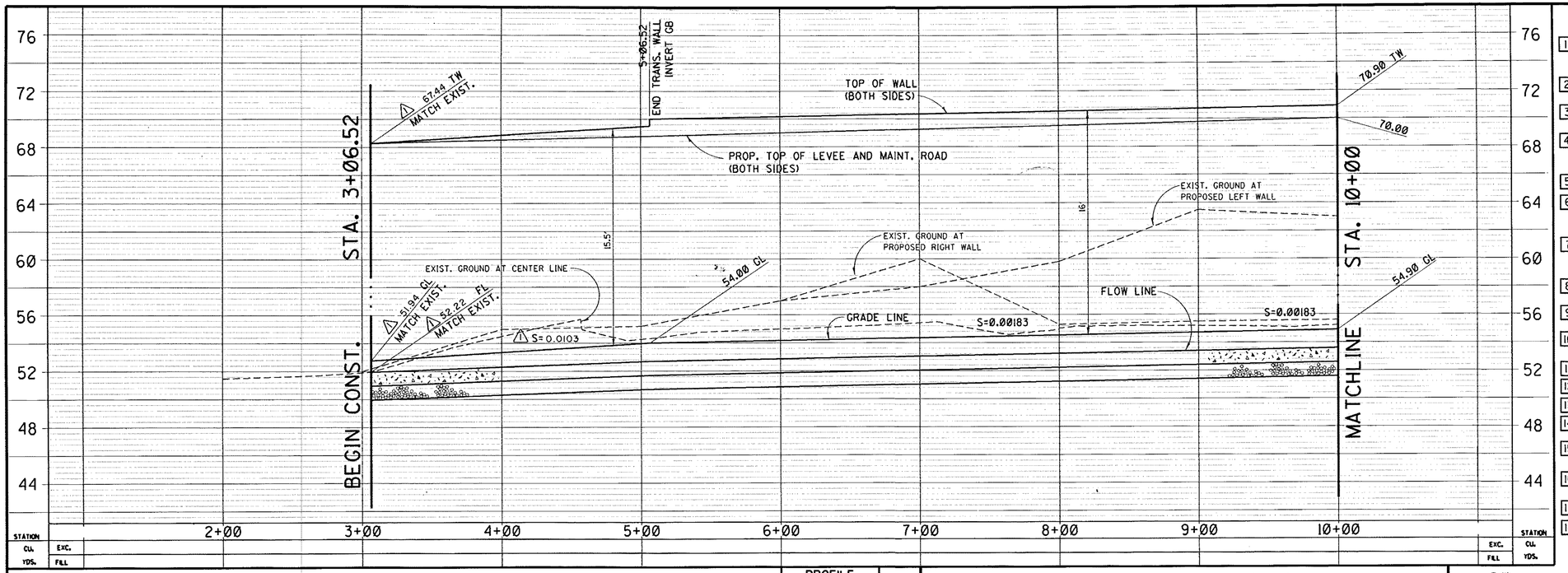
NO.	DESCRIPTION	SHT.	APPROVED	DATE

REVISIONS

W. O. NO. EF07169
DWG. NO. A02-101-5R

SHEET 1 OF 26

2 of 26



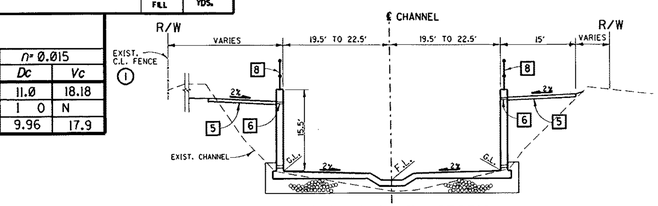
CONSTRUCTION NOTES

1. CONSTRUCT R.C. RECT. CHANNEL PER PLAN, PROFILE, TYPICAL SECTION ON SHEETS 2, 3, 4, 5, 6 AND STRUCTURAL DETAILS ON SHEET 7.
2. CONSTRUCT R.C. TRANSITION WALL PER PLAN, PROFILE AND DETAILS ON SHEET 8.
3. CONSTRUCT R.C. ACCESS RAMP PER PLAN, TYPICAL SECTION AND DETAILS ON SHEETS 9, 10 & 11.
4. CONSTRUCT JUNCTION STRUCTURE TYPE V MODIFIED WITH FLAP GATE PER PLAN, PROFILE, DETAIL SHEET 13 AND OCEMA STD. PLAN 1314.
5. CONSTRUCT 6" UNTREATED BASE MAINTENANCE ROAD.
6. CONSTRUCT 4" DIA. SCUPPER DRAIN 50' O.C. (AS NEEDED) ON CHANNEL WALL PER TYPICAL SECTION AND DETAIL SHEET 13.
7. CONSTRUCT 6' C.L. FENCE AND/OR GATE PER PLAN ON SHEETS 2, 3, 4, 5 & 6 AND OCEMA STD. PLAN 600-0-OC AND DETAIL SHEET 8.
8. CONSTRUCT 3.5' GUARD CABLE FENCE PER OCEMA STD. PLAN 1413.
9. CONSTRUCT R.C. CUTOFF WALL PER PLAN, PROFILE ON SHEET 6 AND DETAILS ON SHEET 8.
10. REMOVE EXISTING TRANSITION WALLS AND INVERT PER PLAN.
11. REMOVE EXISTING CHANNEL LINING.
12. REMOVE AND SALVAGE EXISTING RIPRAP.
13. GRADE TO DRAIN.
14. FURNISH AND PLACE PROJECT INFORMATION SIGN PER OCEMA STD. PLAN 1418.
15. CONSTRUCT DRIVEWAY APPROACH PER PLAN AND DETAIL SHEET 8 WITH W=14', X=2.5' AND OCEMA STD. PLAN 1209.
16. CONSTRUCT TRANSVERSE EXPANSION JOINT PER OCEMA STD. PLAN 1318.
17. CONSTRUCT 6" P.C.C. LANDING PER DETAIL SHEET 8.
18. CONSTRUCT 3" AIR PLACED CONCRETE SLOPE PROTECTION WITH 6"X6" WI.4 W.W.M.

PROFILE
HORIZ. 1"= 40'
VERT. 1"= 4'

HYDRAULIC DATA

Station to Station	Q	Section b	Section z	S	n=0.015 Dn	n=0.015 Vn	F	n=0.015 Dc	n=0.015 Vc
0+00 - 3+06.52	8069	39	0	.0045	9.18	22.53	1.31	11.0	18.18
3+06.52 - 5+06.52	8023	39-45	0	.0103	TRANSITION				
5+06.52 - 10+00	8023	45	0	.00183	11.06	16.12	0.85	9.96	17.9

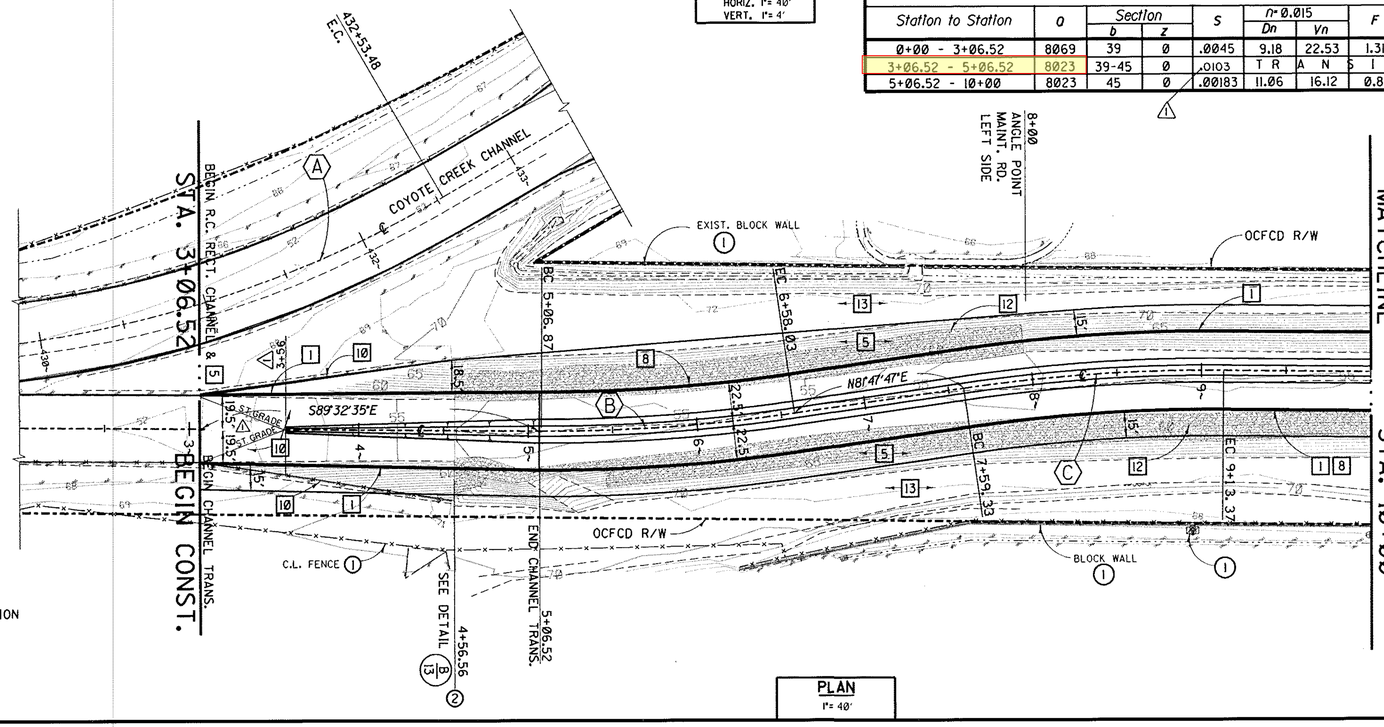


TYPICAL CHANNEL SECTION
FROM STA. 3+06.52 TO STA. 5+06.52
N.T.S.

TYPICAL CHANNEL SECTION
FROM STA. 5+06.52 TO STA. 10+00
N.T.S.

CURVE DATA

- (A) Δ=13°31'21" R=1500.00' L=354.02'
- (B) Δ=08°39'38" R=1000.00' L=151.16'
- (C) Δ=08°49'32" R=1000.00' L=154.04'



LEGEND

1. PROTECT IN PLACE
2. REMOVE
3. REMOVE INTERFERING PORTION
4. RELOCATE BY OTHERS
5. RELOCATE
6. REMOVE AND SALVAGE

PLAN
1"= 40'

MARK	DATE	DESCRIPTION
1	6-98	RECORD DRAWINGS

PREPARED UNDER THE SUPERVISION OF
REGISTERED CIVIL ENGINEER — Henry S. Henein — 33090 Exp. 6-30-98 — STATE OF CALIFORNIA
10-3-96 DATE

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

BREA CREEK CHANNEL (A02)

PLAN AND PROFILE

STA. 3+06.52 TO STA. 10+00.00

DESIGNED MOUHSEN HABIB
DRAWN THUY GUTIERREZ CHECKED H. HENEIN
SHEET 2 OF 26
SCALE AS SHOWN
DATE NOV. 96
DRAWING NO. A02-101-5R

A02-101-5R

tg168/a02beach.pp/a02beach.ipt

Appendix C
Orange County Public Works Methodology Approval

Brandon Willnecker

From: Lew, Penny <Penny.Lew@ocpw.ocgov.com>
Sent: Thursday, April 16, 2020 1:47 PM
To: Brandon Willnecker; Fowler, Brad; Bruce Schmith
Cc: Llanes, Editha; Nguyen, Tim
Subject: RE: OC Loop OPQ - Hydraulics call

Hi Brandon,

GHD performed the procedure per our April 13, 2020 meeting using 100-yr HC flowrates based on the ratio of Brea Creek Channel's (A02) 1996 as-built design discharge (8,023 cfs) to the USACE's Standard Project Flood (SPF) design discharge (12,000) for A02. Thanks for providing the discharges.

The discharges were used for the existing conditions hydraulic model and it appears the results show that A01 has capacity for the estimated 100-yr HC flowrates. For the Artesia location hydraulics, it looks like we might be close on the required freeboard. I can't reference the section(s) because I didn't see any stations for the various sections provided. You're probably aware but I just wanted to point that out.

You can proceed with the analyses for the different alternatives and hopefully, there's an alternative that will maintain the existing water surface elevation in the channel and there will be no reduction in capacity whatsoever.

Penny
(714) 647-3990

From: Brandon Willnecker <Brandon.Willnecker@ghd.com>
Sent: Tuesday, April 14, 2020 5:08 PM
To: Fowler, Brad <Brad.Fowler2@ocpw.ocgov.com>; Bruce Schmith <Bruce.Schmith@ghd.com>; Lew, Penny <Penny.Lew@ocpw.ocgov.com>
Cc: Llanes, Editha <Editha.Llanes@ocpw.ocgov.com>; Nguyen, Tim <Tim.Nguyen@ocpw.ocgov.com>
Subject: RE: OC Loop OPQ - Hydraulics call

Team,

Thank you for your patience.

Attached is the following information.

1. Updated Coyote Creek High Confidence Calculations per out call yesterday.
2. Brea Creek Plan from 1996
3. Corps of Engineers Plate 10 Flows
4. Normal Depth calculation downstream of north fork to determine water surface elevation
5. Valley View Cross Sections 1000' upstream and down with High Confidence Flows (Existing Condition)
6. Artesia Cross Sections 1000' up and down High Confidence Flows (Existing Condition)

The results show that the channel has capacity for the High Confidence flow. Our recommendation is to move forward based upon these results with our alternative undercrossing analysis. Please advise.

Thank you,

Brandon Willnecker, PE, QSD, QISP
Regional Stormwater Leader

GHD
Proudly employee owned
T: 1 949 585 5228 | M: 949 433 8334 | E: brandon.willnecker@ghd.com
320 Goddard Way Suite 200 Irvine CA 92618 USA | www.ghd.com

Connect

From: Fowler, Brad <Brad.Fowler2@ocpw.ocgov.com>
Sent: Tuesday, April 14, 2020 12:55 PM
To: Bruce Schmith <Bruce.Schmith@ghd.com>; Lew, Penny <Penny.Lew@ocpw.ocgov.com>; Brandon Willnecker <Brandon.Willnecker@ghd.com>
Cc: Llanes, Editha <Editha.Llanes@ocpw.ocgov.com>; Nguyen, Tim <Tim.Nguyen@ocpw.ocgov.com>
Subject: RE: OC Loop OPQ - Hydraulics call

Bruce,

I see a meeting request, but haven't seen the revised information from Brandon this morning.

Regards,

Brad Fowler
OC Public Works Project Management
(O) 714-245-4503 (C) 949-337-0512

From: Fowler, Brad
Sent: Thursday, April 9, 2020 1:59 PM
To: 'Bruce Schmith' <Bruce.Schmith@ghd.com>; Lew, Penny <Penny.Lew@ocpw.ocgov.com>; Brandon Willnecker <Brandon.Willnecker@ghd.com>
Cc: Llanes, Editha <Editha.Llanes@ocpw.ocgov.com>
Subject: RE: OC Loop OPQ - Hydraulics call

Bruce,
Please add Editha to invite. She is available.

Regards,

Brad Fowler
OC Public Works Project Management
(O) 714-245-4503 (C) 949-337-0512

-----Original Appointment-----
From: Bruce Schmith <Bruce.Schmith@ghd.com>
Sent: Thursday, April 9, 2020 1:52 PM
To: Bruce Schmith; Lew, Penny; Brandon Willnecker; Fowler, Brad
Subject: OC Loop OPQ - Hydraulics call
When: Monday, April 13, 2020 4:00 PM-5:00 PM (UTC-08:00) Pacific Time (US & Canada).
Where: call in

Join Webex meeting
Meeting number (access code): 573 482 261

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+1-8324089370 US Toll
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If you are a host, go here to view host information. IMPORTANT NOTICE: Please note that this Webex service allows audio and other information sent during the session to be recorded, which may be discoverable in a legal matter. By joining this session, you automatically consent to such recordings. If you do not consent to being recorded, discuss your concerns with the host or do not join the session.

Technical Memorandum

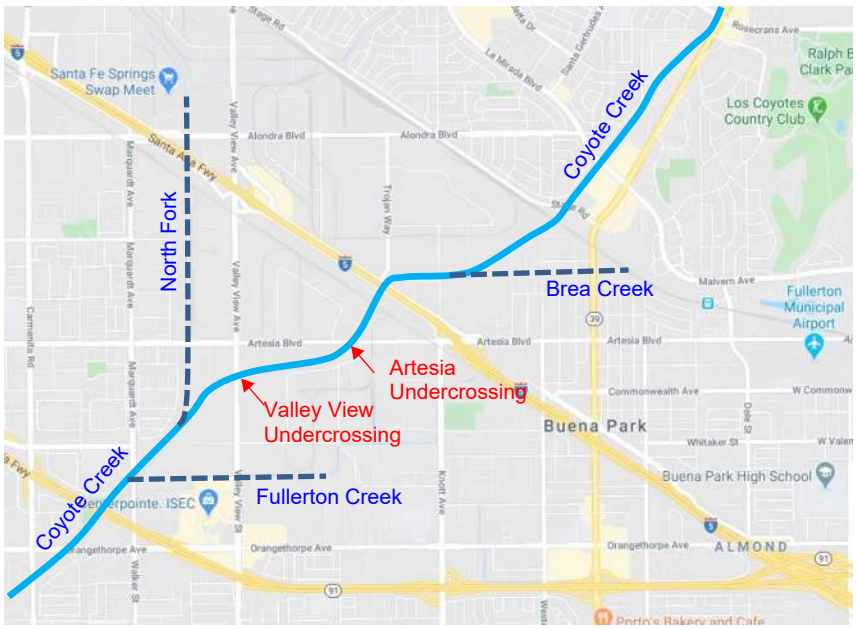
May 11, 2020

To:	Mr. Brad Fowler – OCPW Project Manager	Ref. No.:	11206772 (GHD)
From:	Brandon Willnecker	Tel:	(949) 585-5228
CC:	Bruce Schmith		

Subject: Coyote Creek O,P,Q – Flowrate Justification – High Confidence Values

1. Summary

Orange County Public Works has contracted with GHD Inc. (GHD) for the preparation of a hydraulic analysis in conjunction with the project improvement plans for OC Loop OPQ along Coyote Creek, in north Orange County, including evaluating channel encroachments at two undercrossings at Artesia Boulevard and Valley View Street. This memo has been prepared to summarize GHD's steps to arrive at the 100-Year High Confidence (HC) Flow Rates as the Base Flow Rates in the HecRas model and as approved by Penny Lew of OCPW on April 16, 2020. The high confidence flow rates within Coyote Creek are being used for purposes of establishing existing water surface elevations. The proposed locations for study are shown on the map below.



2. Existing Information

GHD conducted a search of available information from Orange County Public Works (OCPW), Orange County Flood Control District (OCFCD), Los Angeles County Flood Control District (LAFCD), FEMA, and the Army Corps of Engineering (ACOE) to obtain as-built drawings, hydrology and hydraulics data and reports, and other miscellaneous information. The following list of information summarizes the results of the search and is a list of documents that provide data, flow rates, exhibits, calculations, and/or results, and is included in Appendix #3.

- Plans for the Construction of Brea Channel, OCFCD Facility No. A02 – November, 1996
- Army Corps of Engineer's – Plate 4, File No. 198/89 – Coyote Creek Channel Std. Discharges
- Army Corps of Engineer's – Plate 10, File No. 373/120 – Coyote Creek Channel Std. Discharges

The following table summarizes the findings within the above information and other sources related to flow rates along project length within Coyote Creek. See Appendix #1 illustrating the locations denoted for each of the below flow rates.

Table 2.1 Existing Flow Rate Information

Concentration Point	LACFCD 1935 Plans – Theoretical Q (cfs)	USACE "Design Discharge" Q (cfs)	USACE 100-Year Q (CFS)	1949 Survey Report Q (cfs)	OCHM 100-Year Design Q - HC (cfs)	OCHM 100-Year EV Q (cfs)
CC Above Brea Creek	15,600	15,000		7,500		
Brea Creek D/S of Western		12,000		6,000	8,023	6,710
CC Below Brea Creek	19,500	21,500		13,000		
CC Below North Fork	23,300	37,000		23,000		
CC Below Fullerton Creek		40,000				
Fullerton Creek		13,500				7,700
CC Above San Gabriel River		50,000	38,000	30,000		

CC = Coyote Creek D/S = Downstream HC = High Confidence EV = Expected Value

3. Proposed Methodology

Table 2.1 in Section 2 of this memo illustrates the gaps in flow rates across multiple criteria. The Orange County Hydrology Manual permits the use of Expected Value numbers in the analysis of existing facilities, and for purposes of this project, the higher OCHM 100-Year Design Flows (High Confidence Flows) will be used to analyze the existing and proposed conditions 1,000 feet upstream and downstream of the Coyote Creek crossings at Artesia Boulevard and Valley View Street.

In order to determine the high confidence flows for the areas of Coyote Creek from below North Fork to above Brea Creek, the following ratio was used to establish a conversion factor to calculate the high confidence flow rate for this analysis. The conversion factor is based upon known flow rates for Break Creek downstream of Western, and is as follows:

(OCHM 100-Year High Confidence / USACE Design Discharge) = Conversion Factor

8,023 cfs / 12,000 cfs = 0.669

USACE Design Discharge x **0.669** = OCHM 100-High Confidence

To calculate the water surface elevation within Coyote Creek GHD prepared a HecRas model utilizing the Coyote Creek As-Built plans, and verified/updated the model with cross sectional field survey data and detailed bridge survey data. Calculated high confidence flow rates were then modelled in HecRas for cross sectional analysis to determine the water surface elevation within the channel. The downstream water surface elevation was determined by calculating the cross sectional normal depth and used as the downstream control water surface elevation in the HecRas model. Bridge decks, piers, sidewalls, and soffits were modeled using field topographic elevations.

4. Proposed High Confidence Flow Rates

Table 4.1 summarizes the results of applying the 0.669 conversion factor to the USACE Design Discharge rates. The rates listed under the OCHM 100-Year Design Q – HC (cfs) column are the rates used in the HecRas model.

Table 4.1 Proposed / High Confidence Flow Rate Information

Concentration Point	LACFCD 1935 Plans – Theoretical Q (cfs)	USACE "Design Discharge" Q (cfs)	USACE 100-Year Q (CFS)	1949 Survey Report Q (cfs)	OCHM 100-Year Design Q - HC (cfs)	OCHM 100-Year EV Q (cfs)
CC Above Brea Creek	15,600	15,000		7,500	**10,035**	
Brea Creek D/S of Western		**12,000**		6,000	**8,023**	6,710
CC Below Brea Creek	19,500	21,500		13,000	**14,384**	
CC Below North Fork	23,300	37,000		23,000	**24,753**	
CC Below Fullerton Creek		40,000				
Fullerton Creek		13,500				7,700
CC Above San Gabriel River		50,000	38,000	30,000		

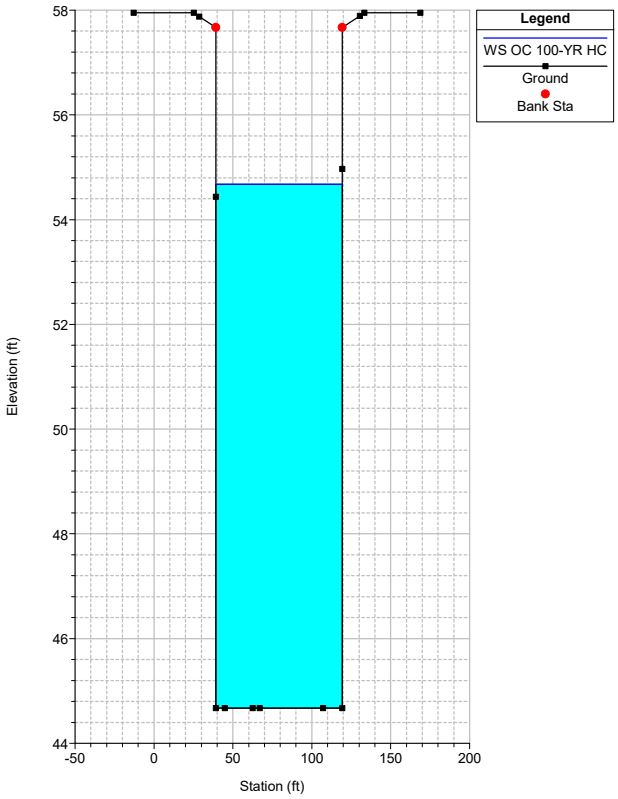
CC = Coyote Creek D/S = Downstream HC = High Confidence EV = Expected Value

5. Results

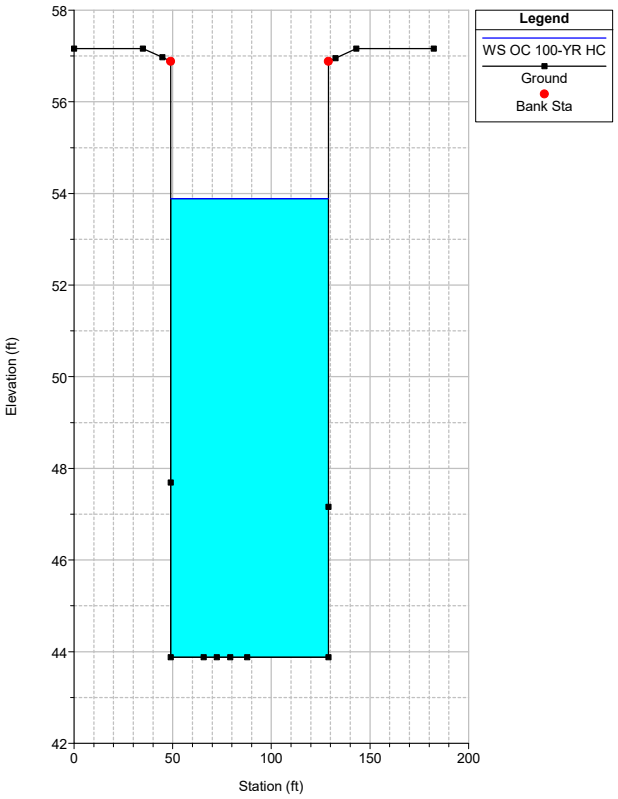
Utilizing the high confidence flow rates listed in Table 4.1 resulted in HecRas output illustrating that the flow rates are contained within Coyote Creek. Cross sectional analysis 1,000 feet upstream and downstream of the Valley View Street and Artesia Boulevard channel crossings have been included in Appendix #2.

Appendix D
Existing Conditions
Cross Sections

CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43722



CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43672



CoyoteCreekHydraulics Plan: Existing Condition
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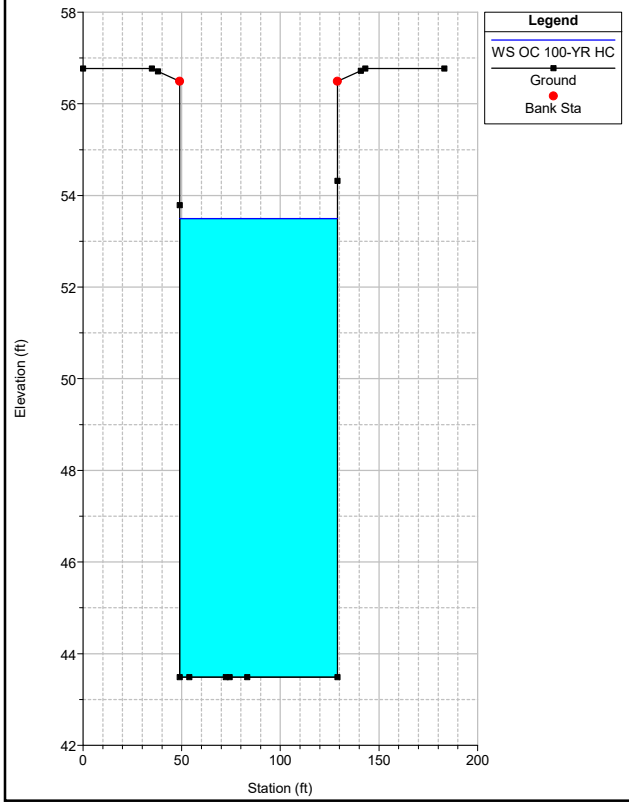
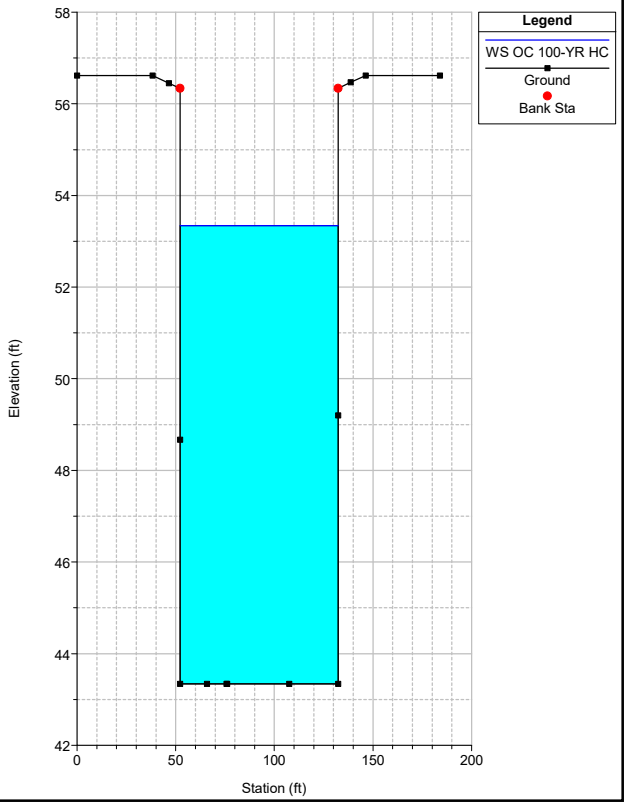
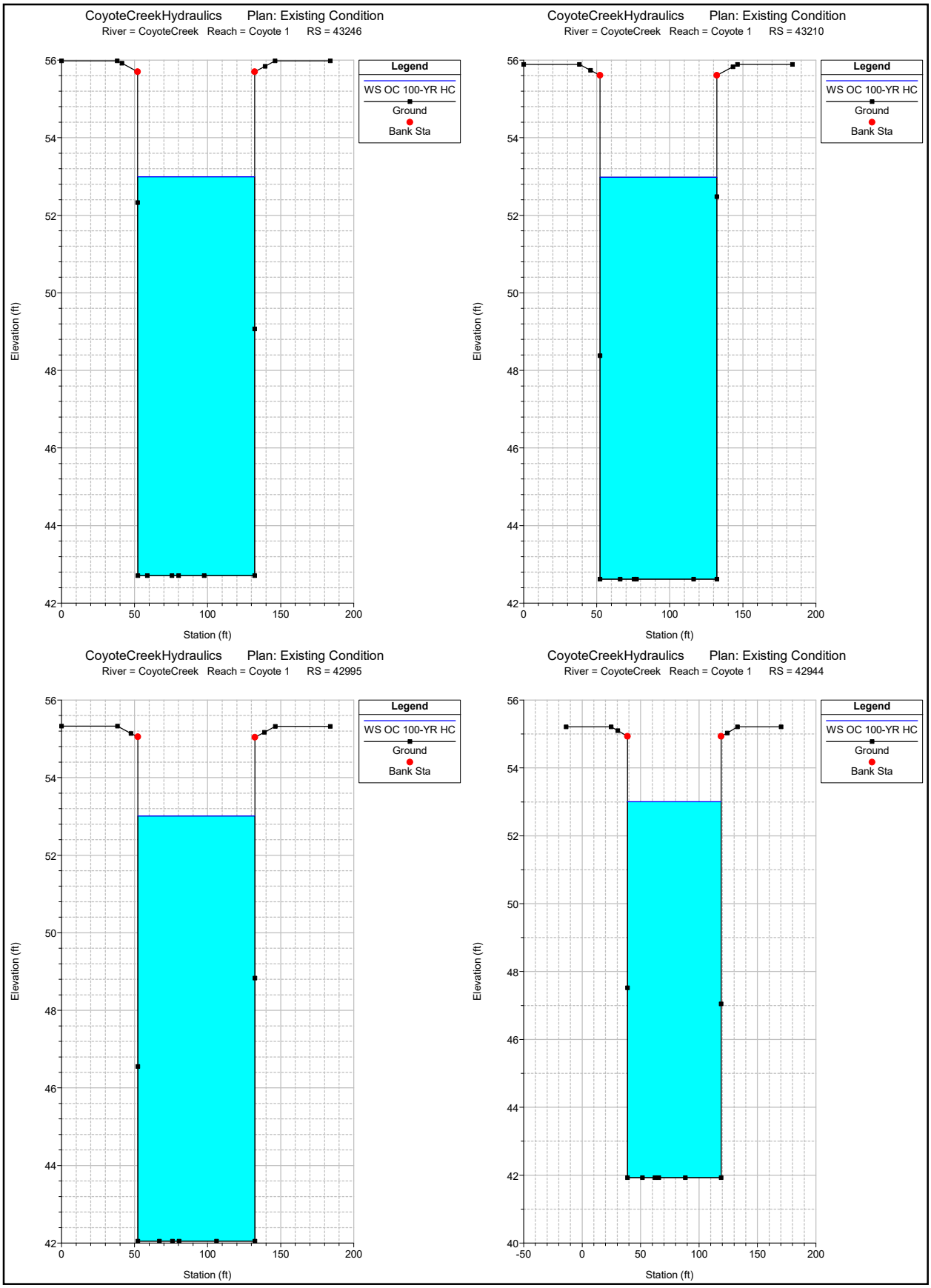
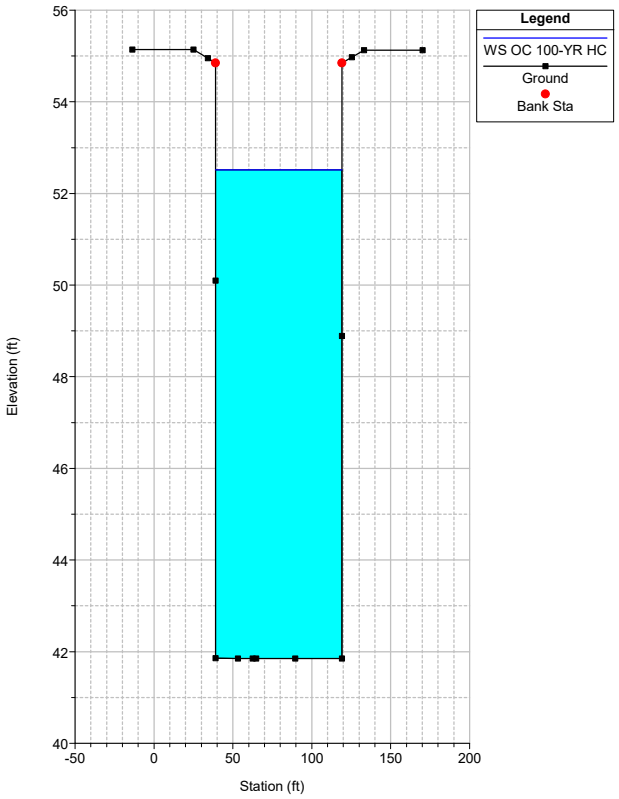


CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43495

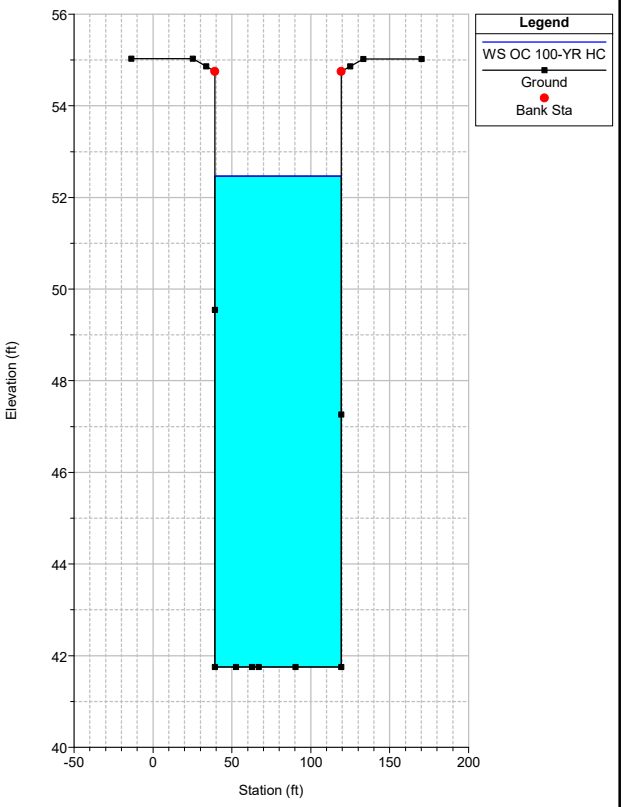



CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43246
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43210
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42995
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42944
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)

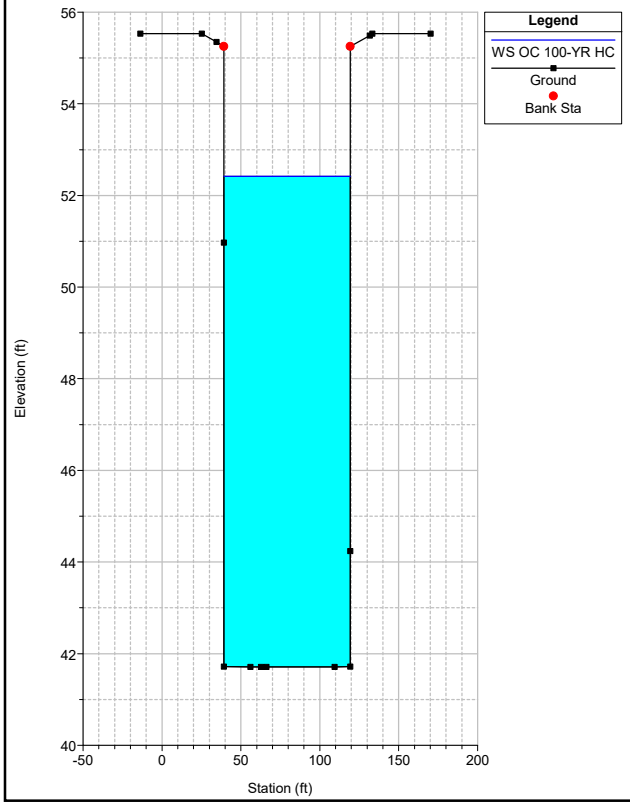
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42845



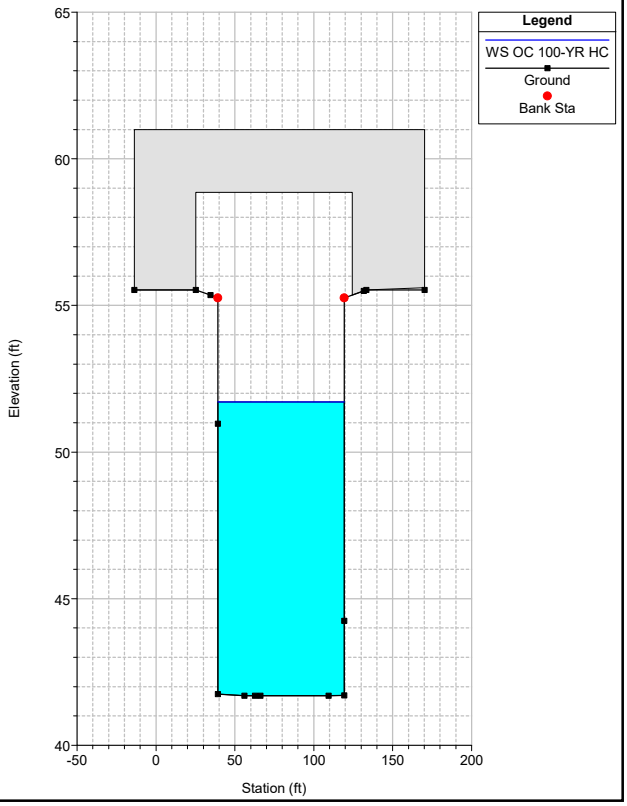
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42794



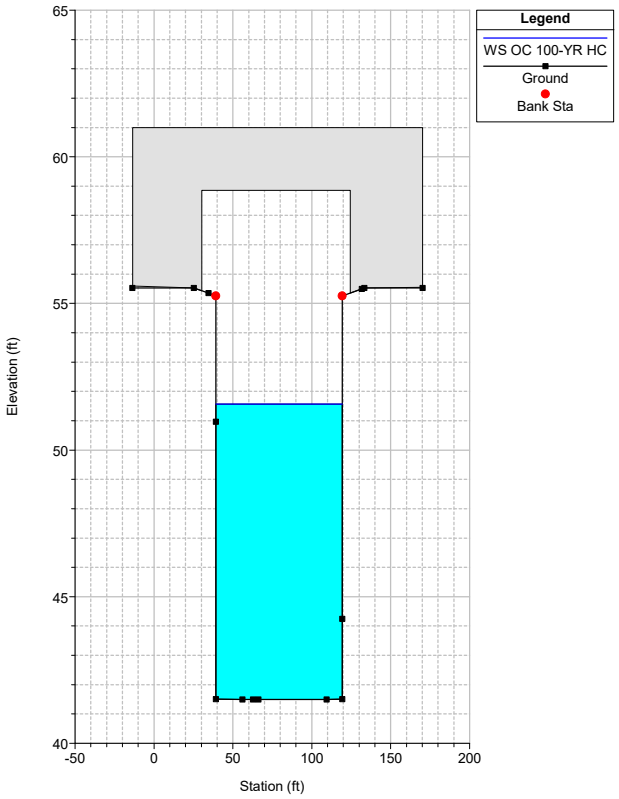
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42765



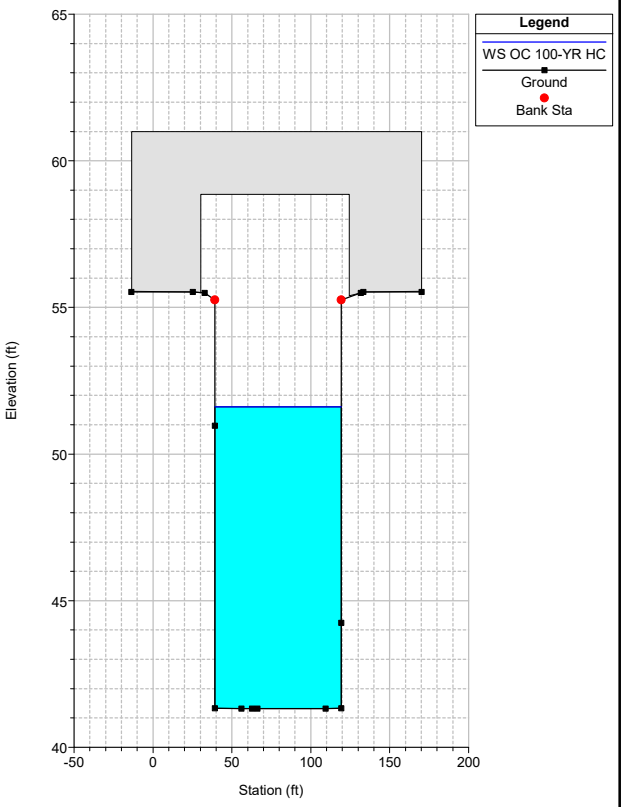
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42752 Artesia Blvd Bridge



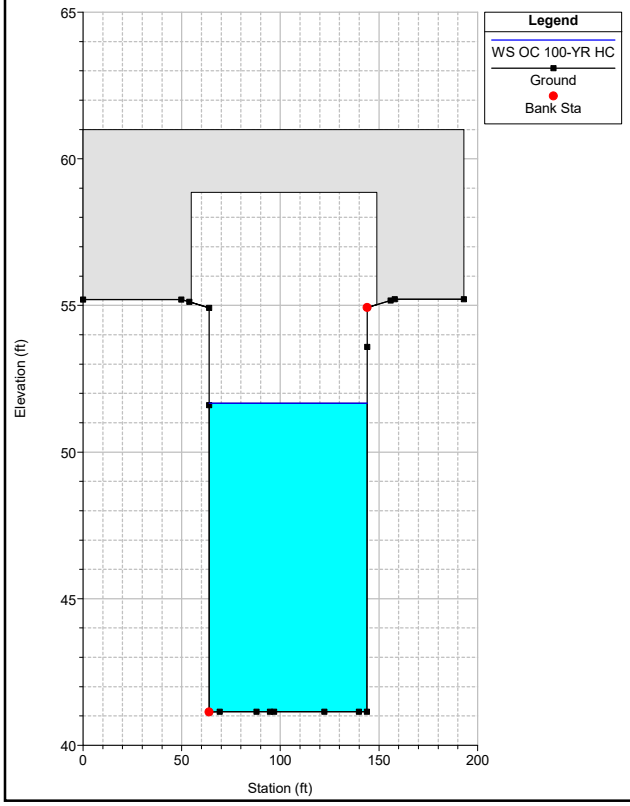
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42720 Artesia Blvd Bridge



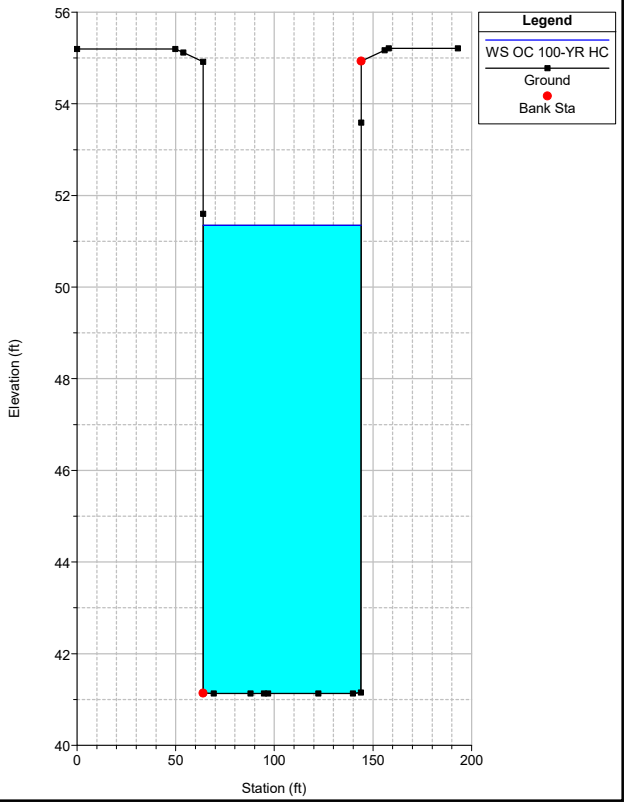
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42656 Artesia Blvd Bridge



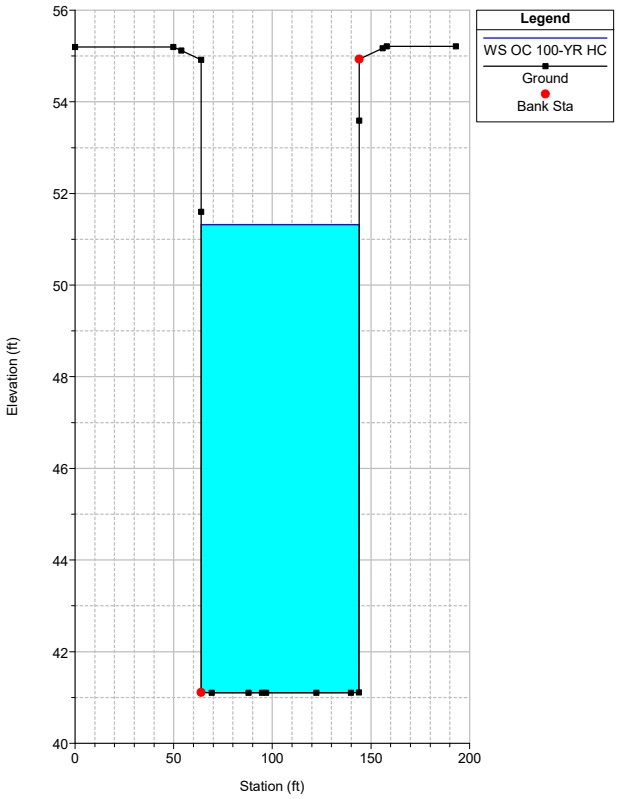
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42594 Artesia Blvd Bridge



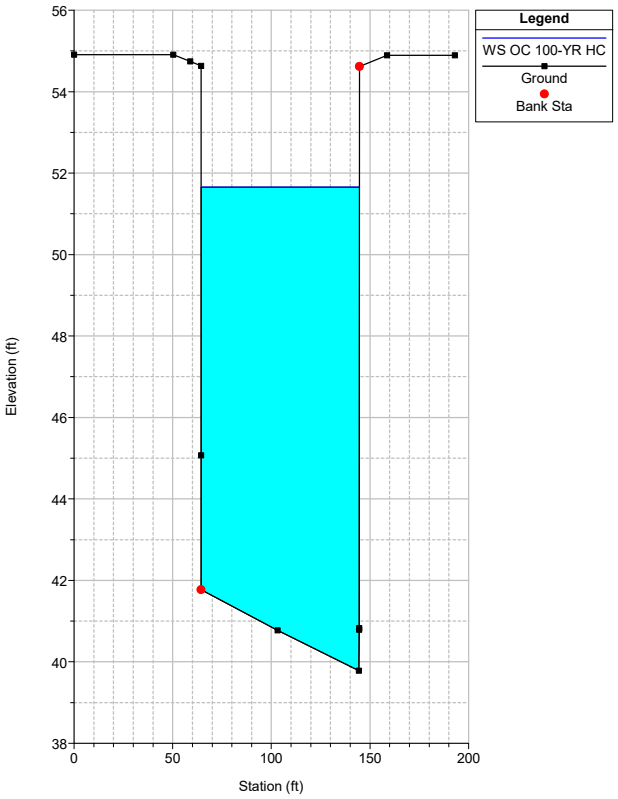
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42576



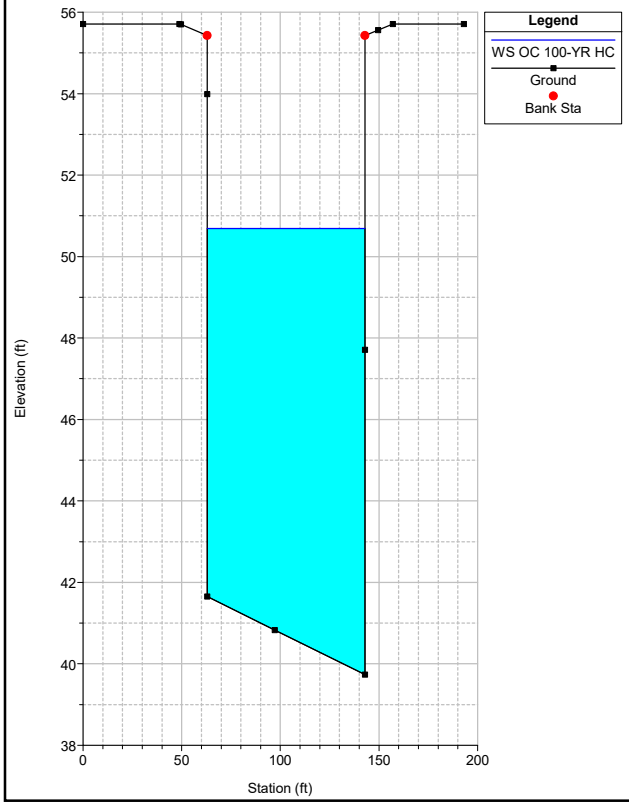
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42555



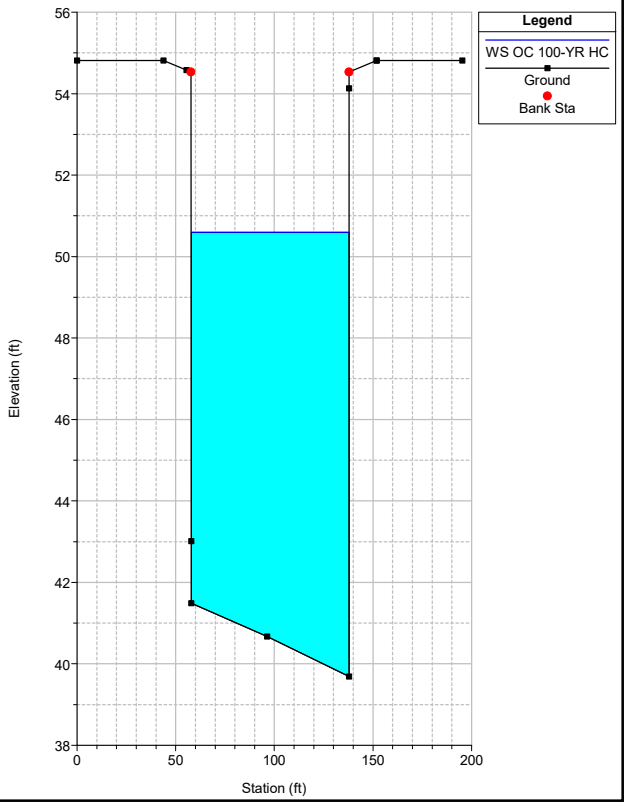
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42493



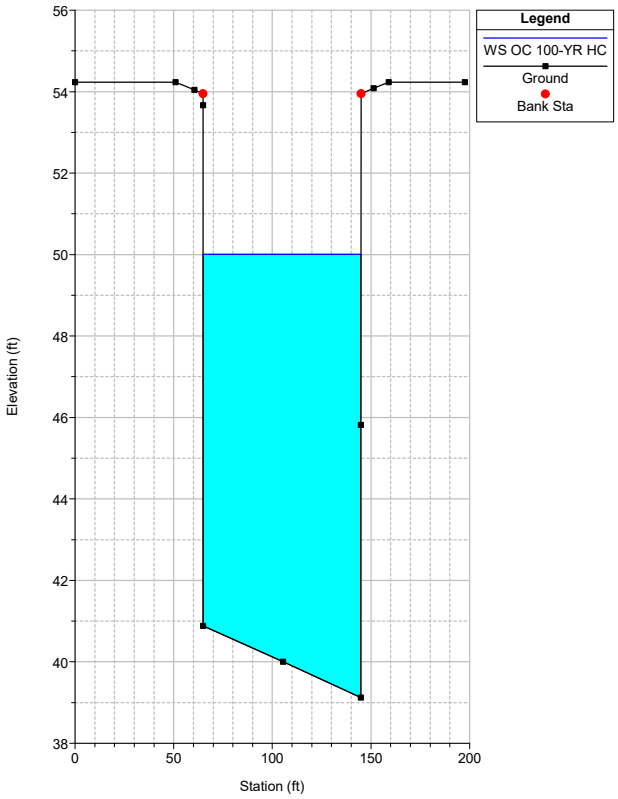
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42444



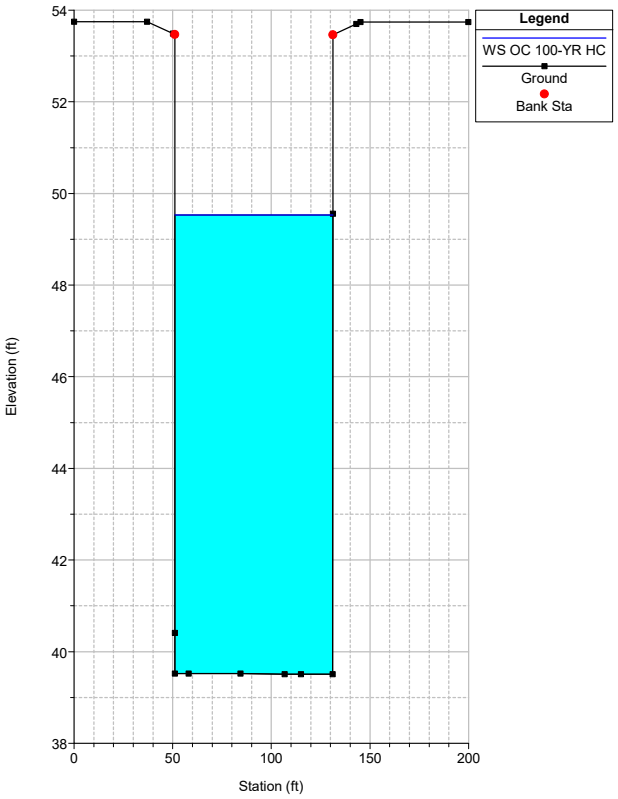
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42396



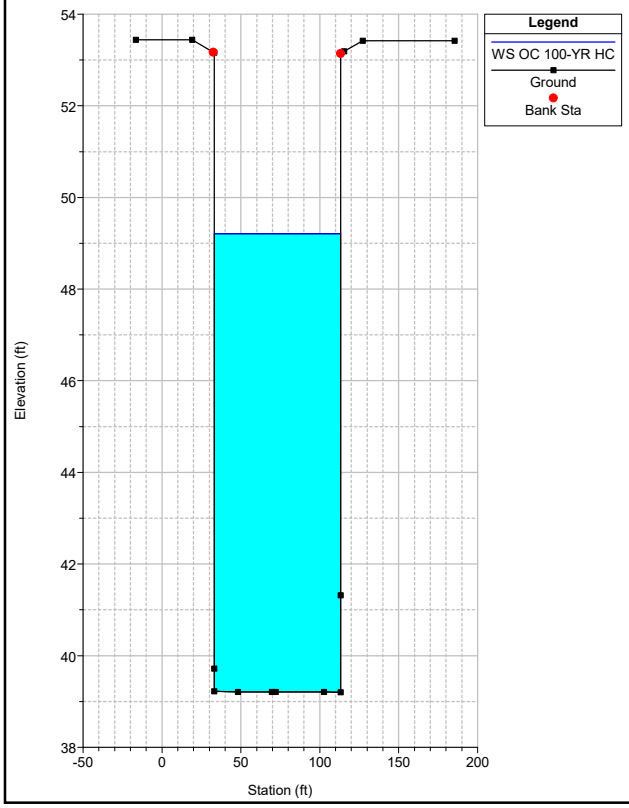
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42158



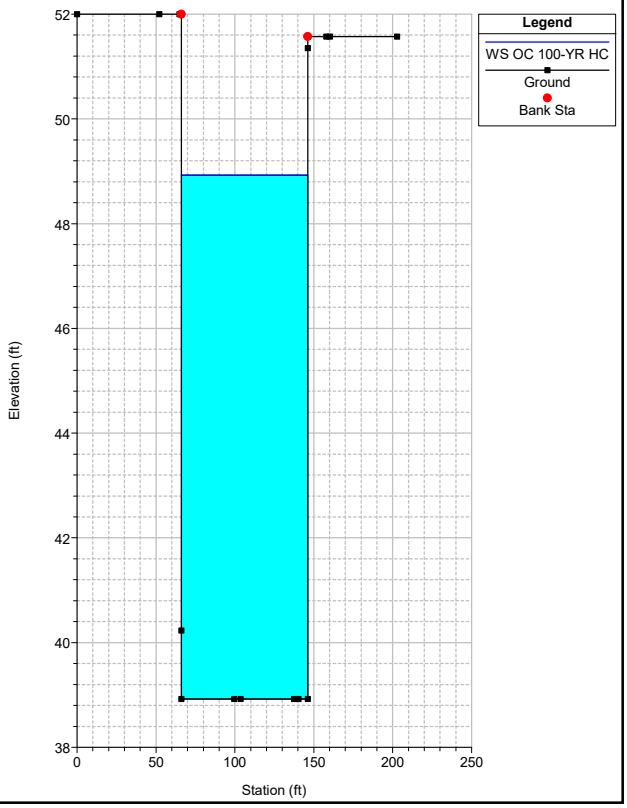
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41918



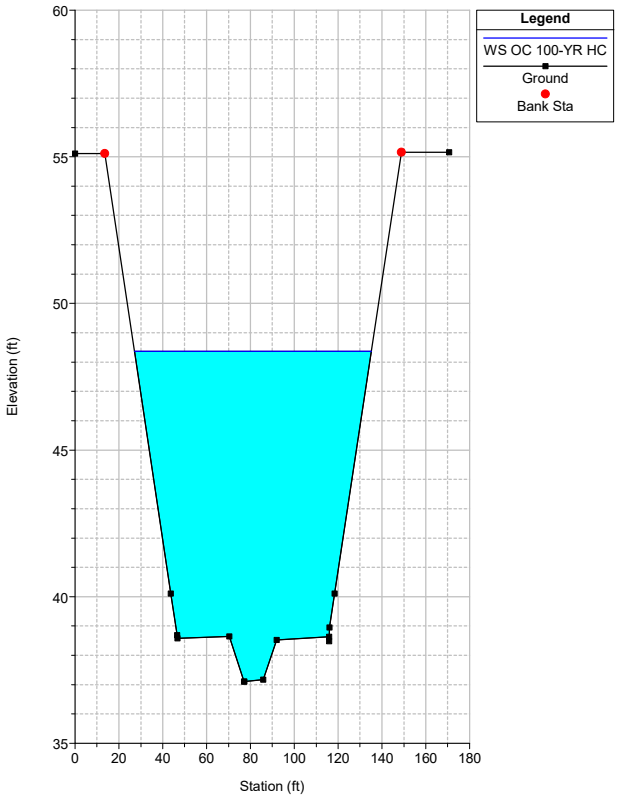
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41746



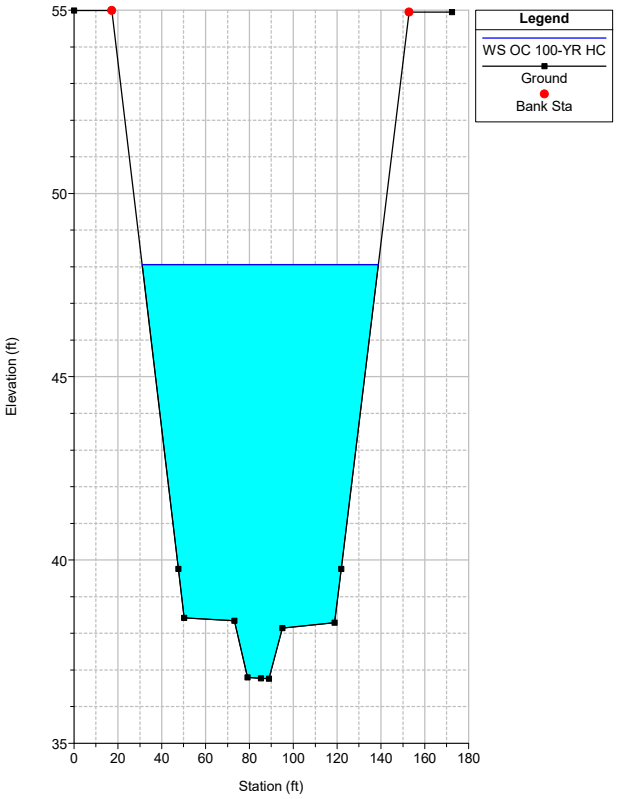
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41649



CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41546



CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41449



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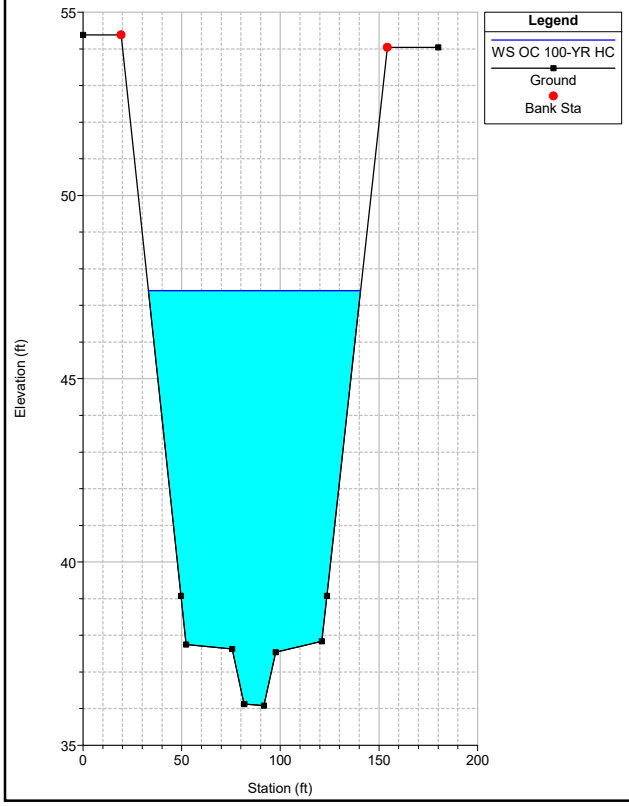

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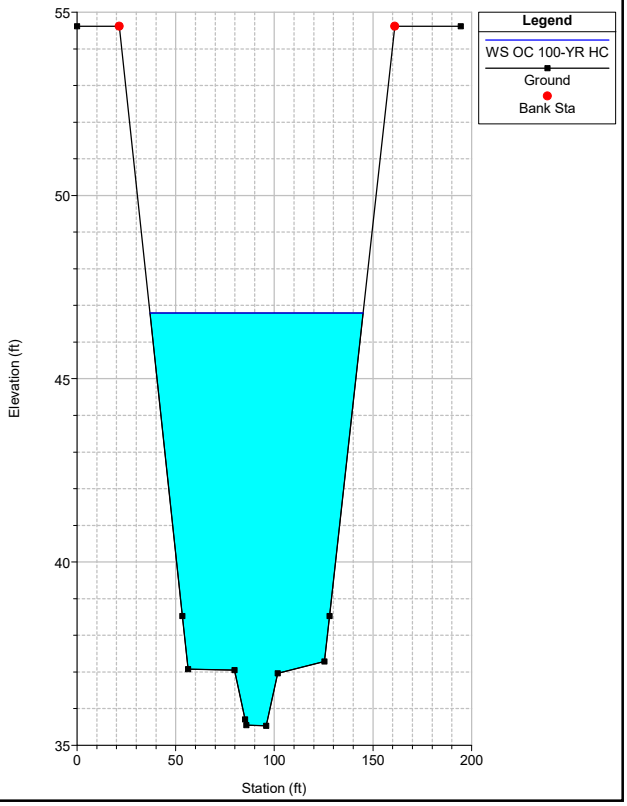
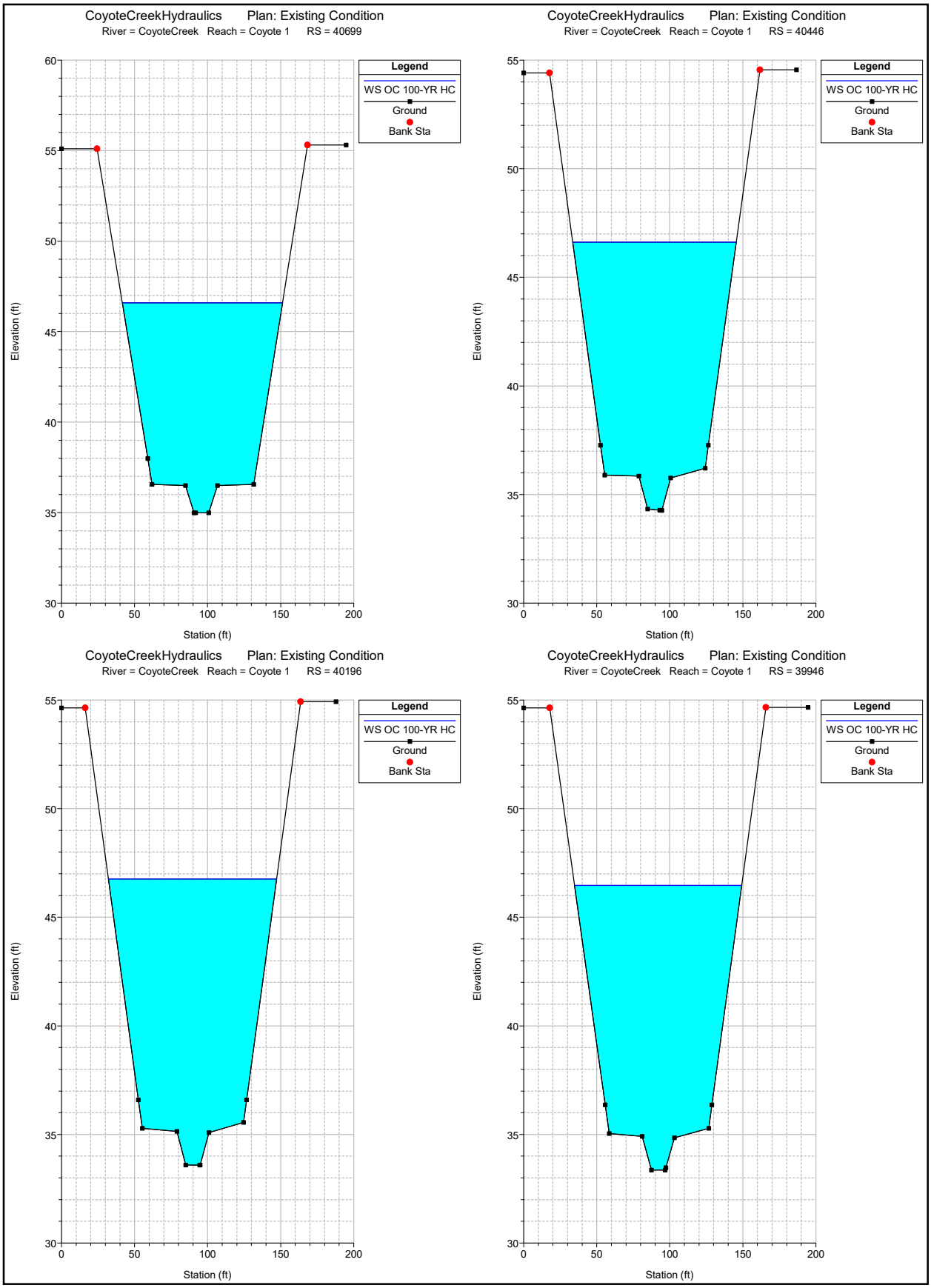
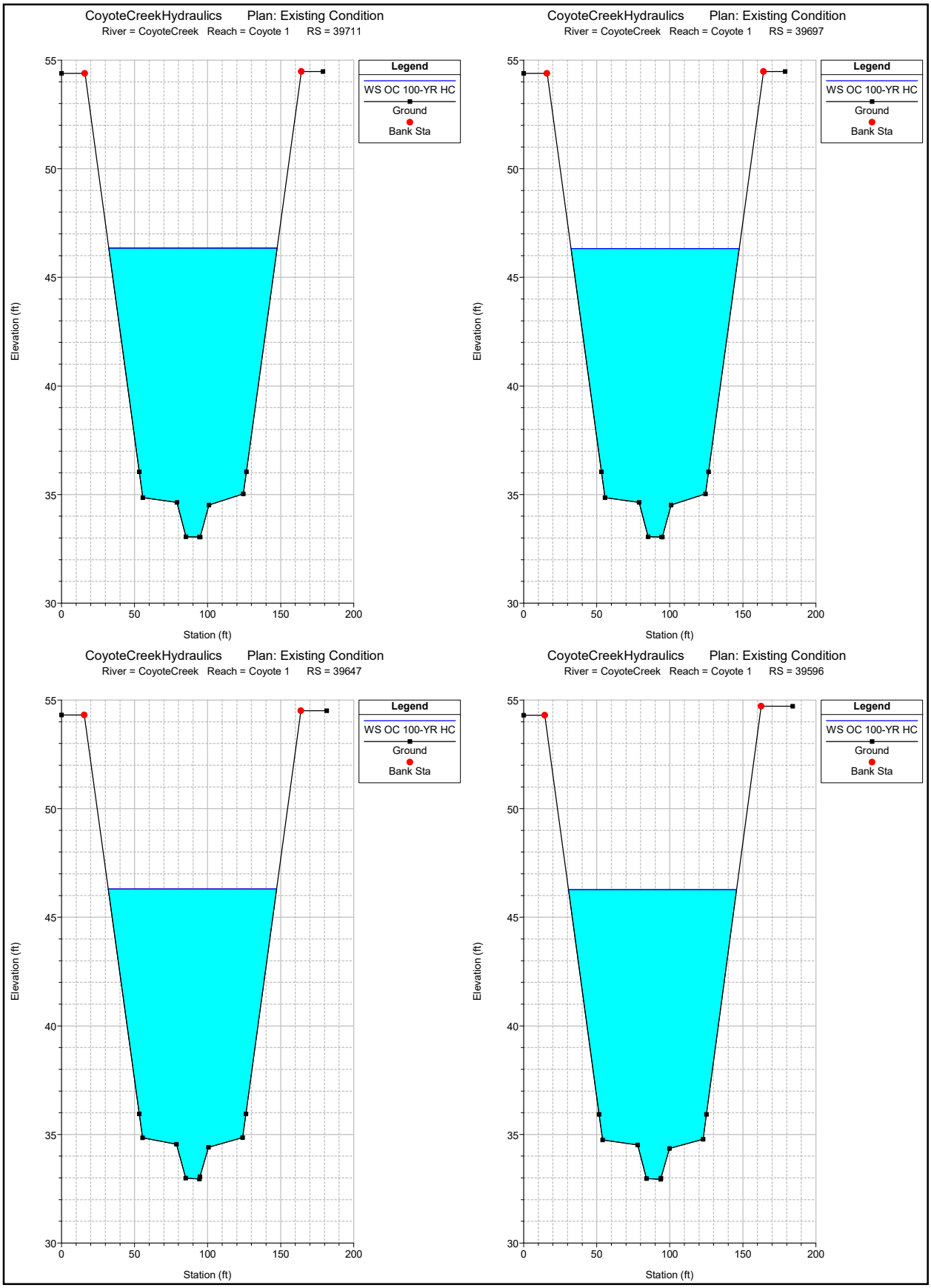
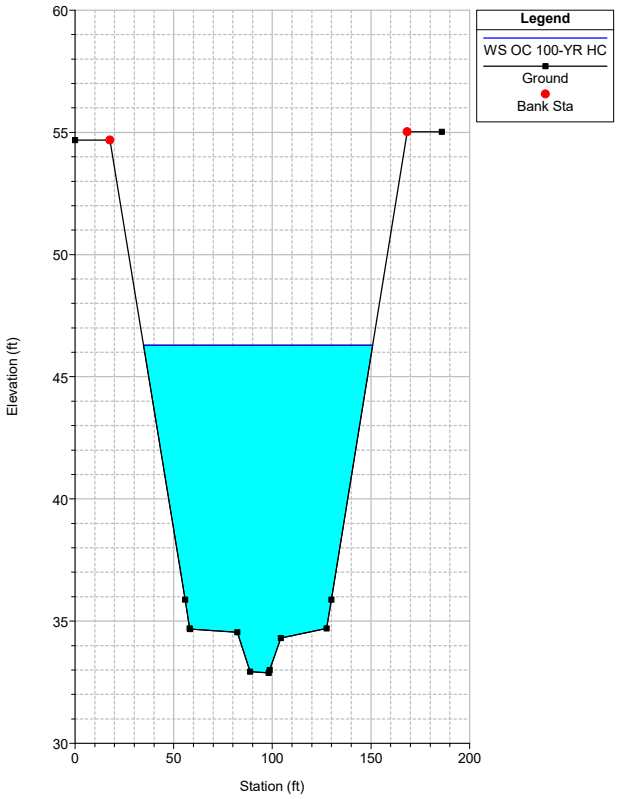
River = CoyoteCreek Reach = Coyote 1 RS = 40950



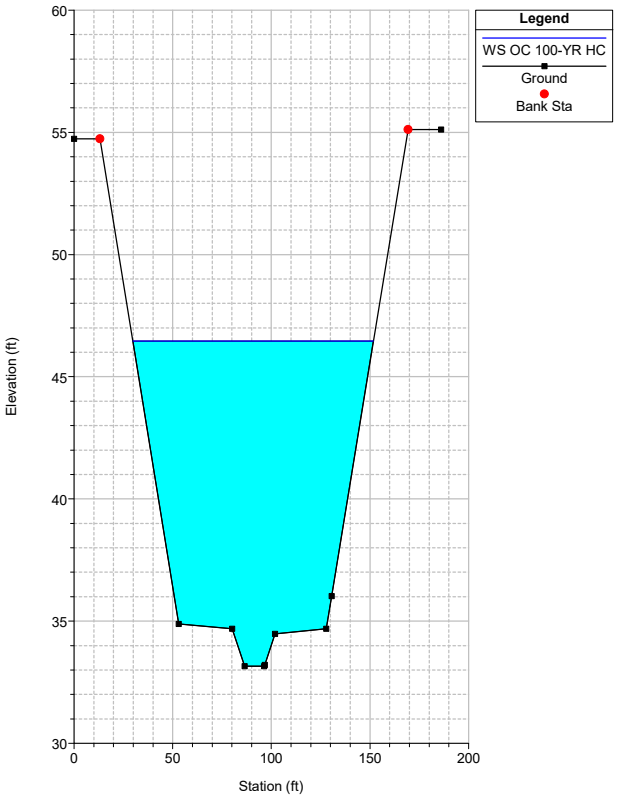

CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 40699
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 40446
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 40196
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39946
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)


CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39711
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39697
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39647
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39596
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)

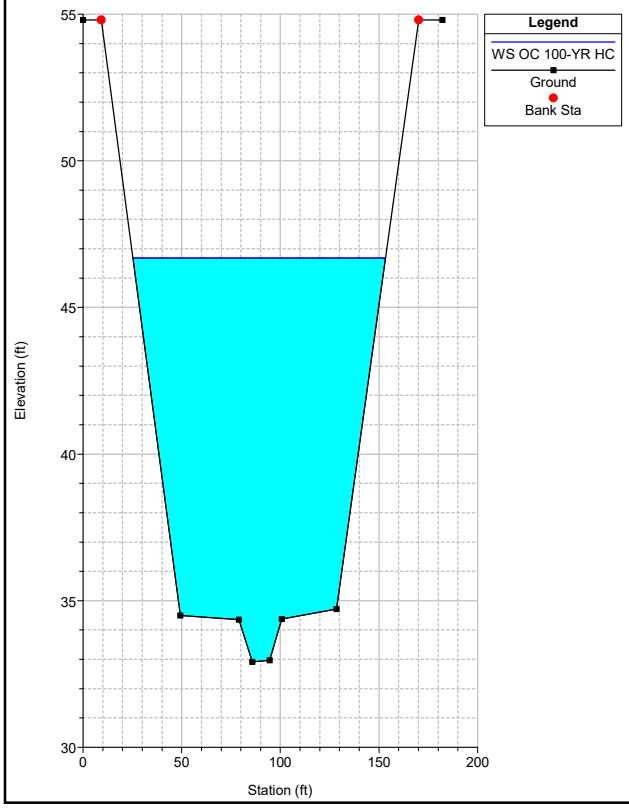
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39548



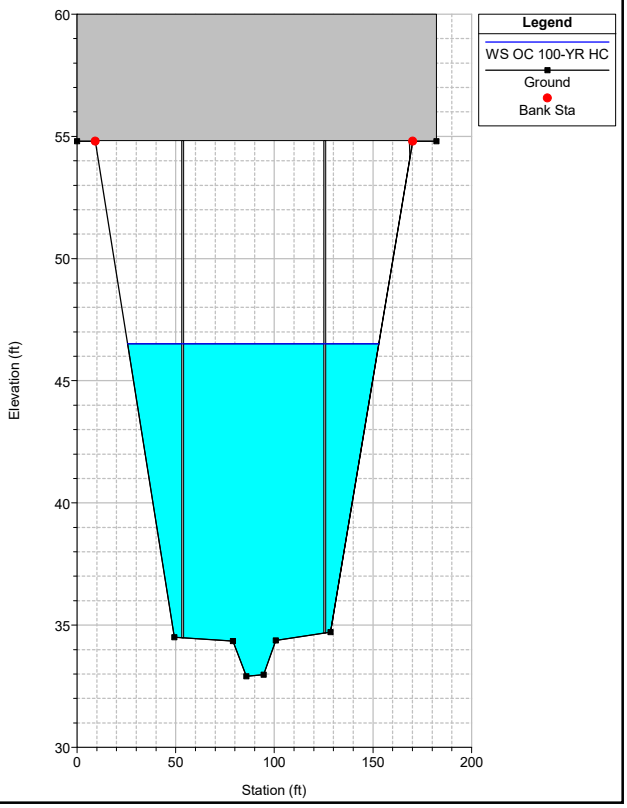
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39498



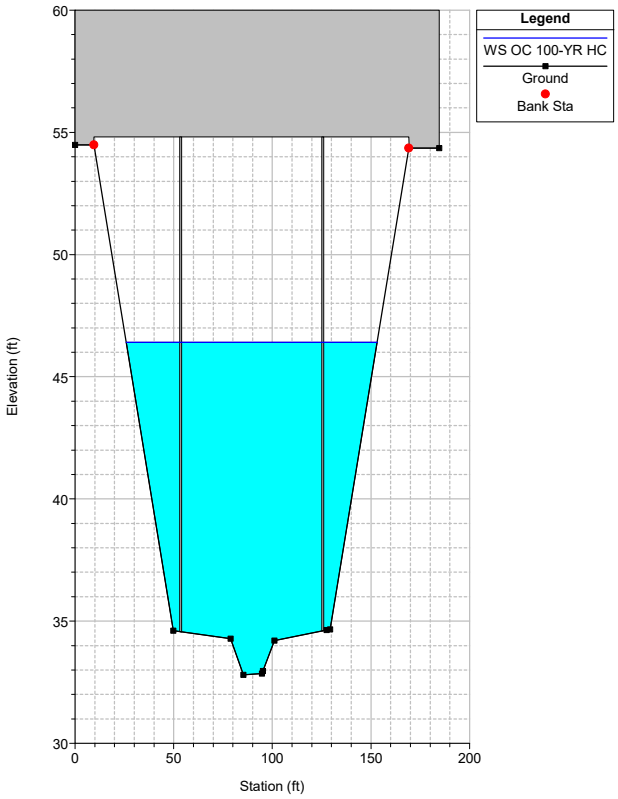
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39458



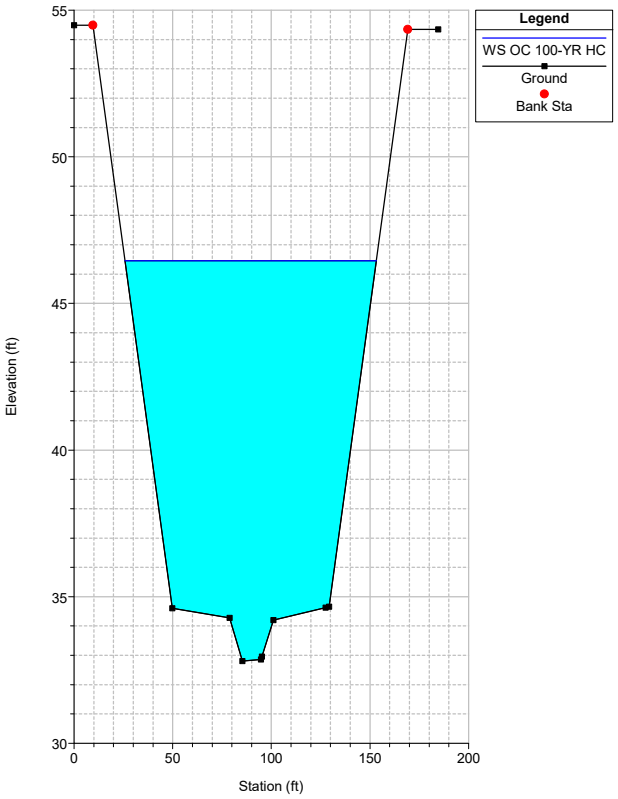
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39401 BR Valley View Street



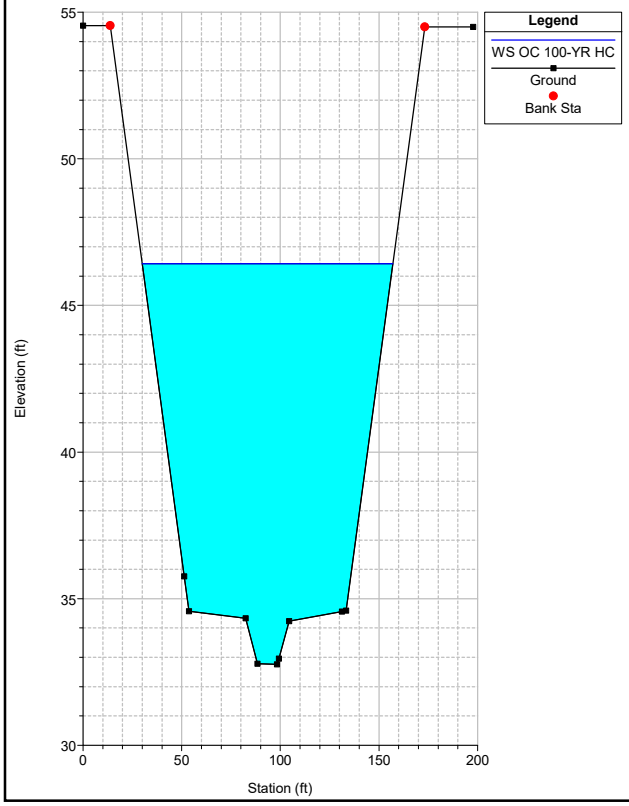
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39401 BR Valley View Street



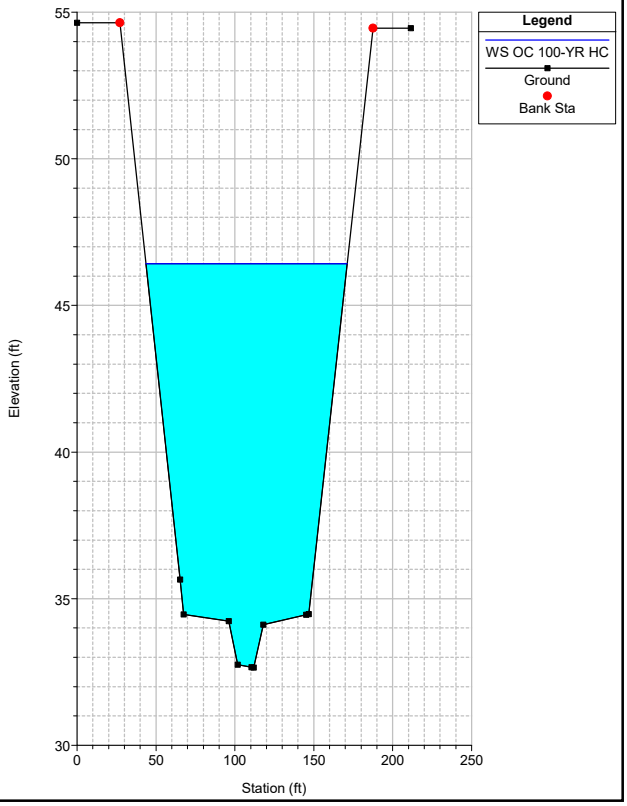
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39319

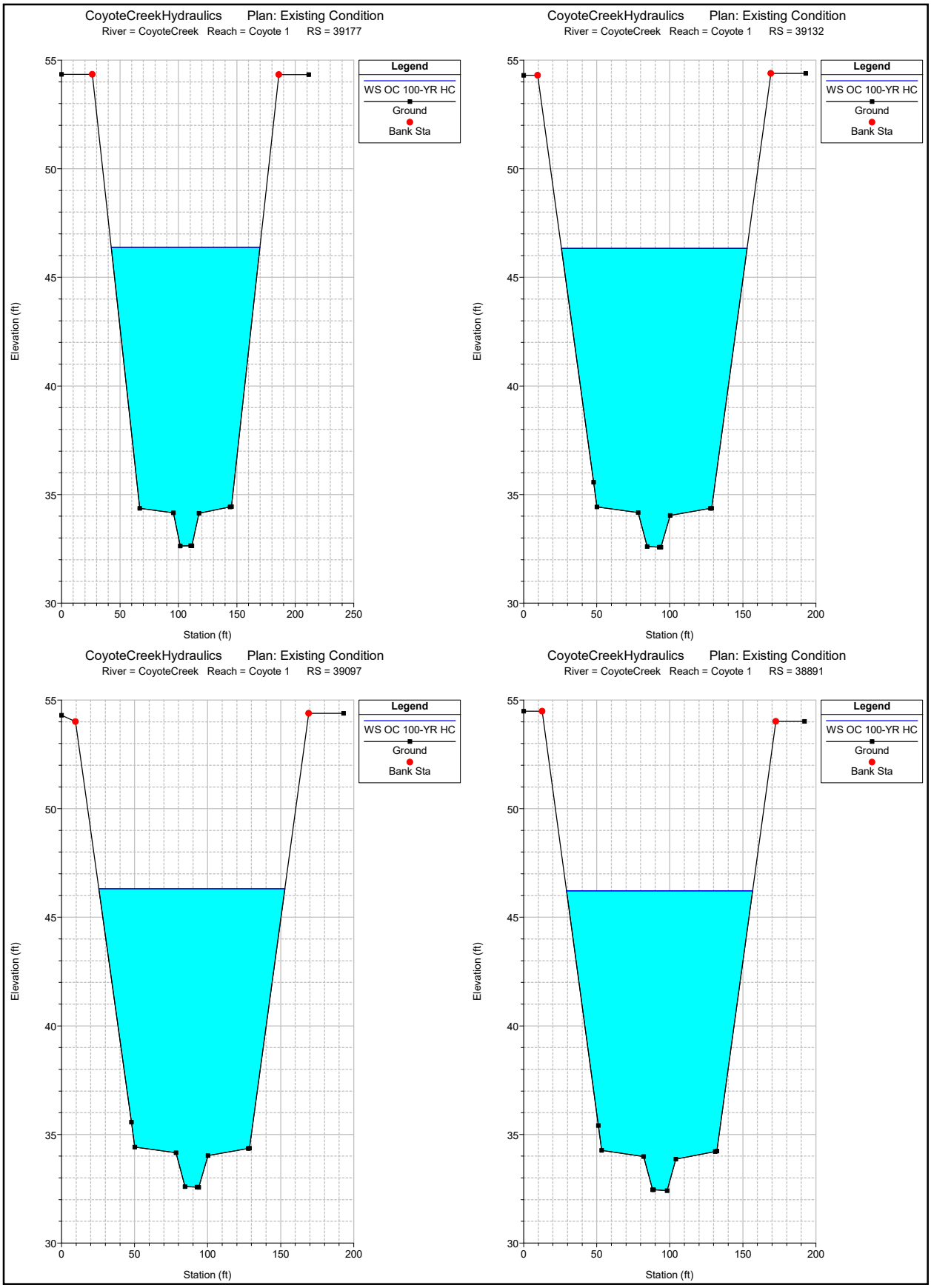


CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39273

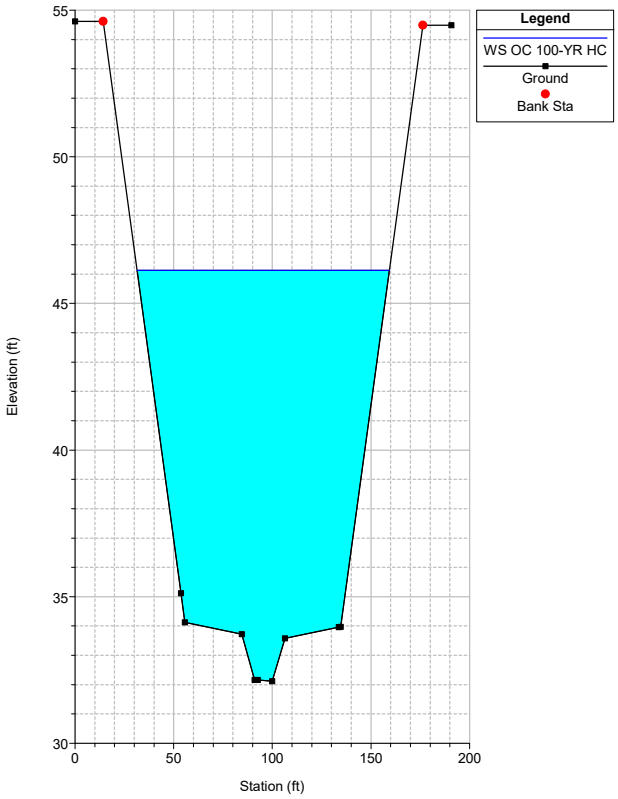


CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39226

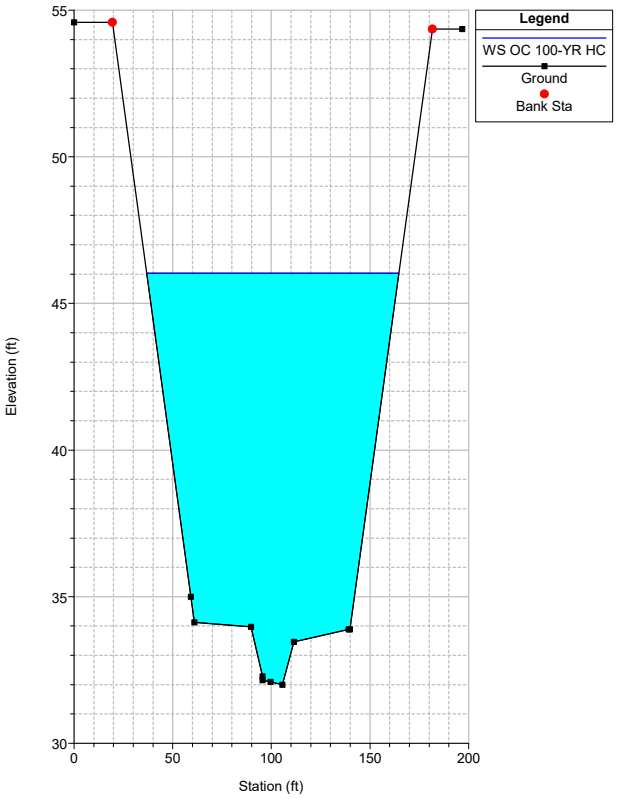



CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39177
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39132
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39097
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 38891
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)

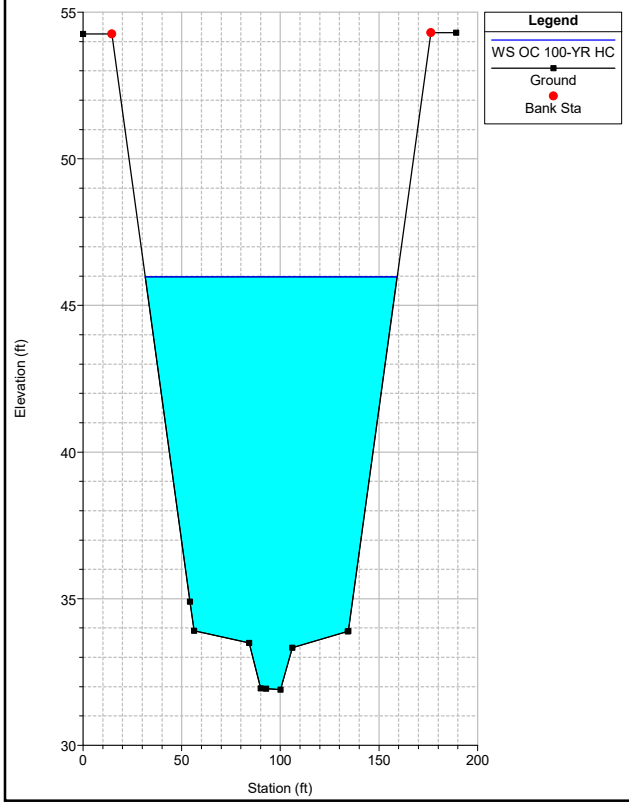
CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 38651



CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 38536

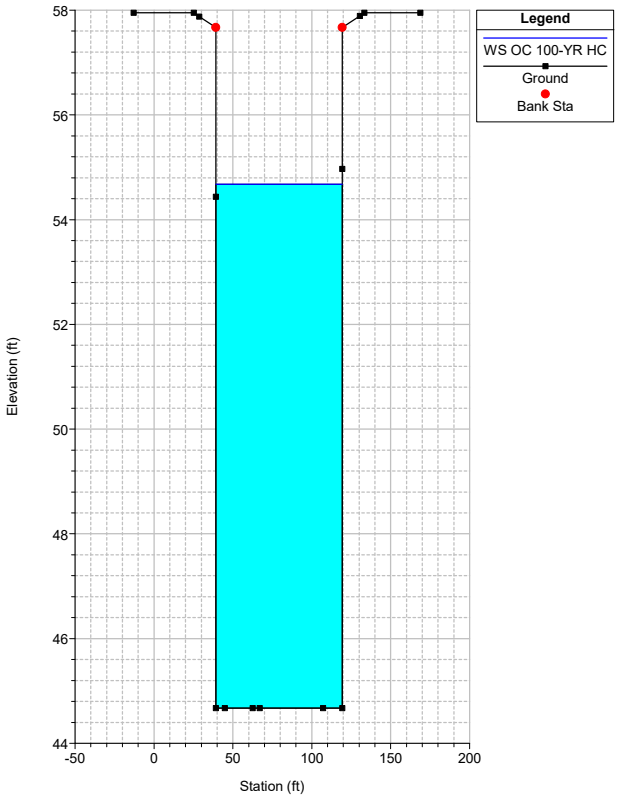


CoyoteCreekHydraulics Plan: Existing Condition
River = CoyoteCreek Reach = Coyote 1 RS = 38404

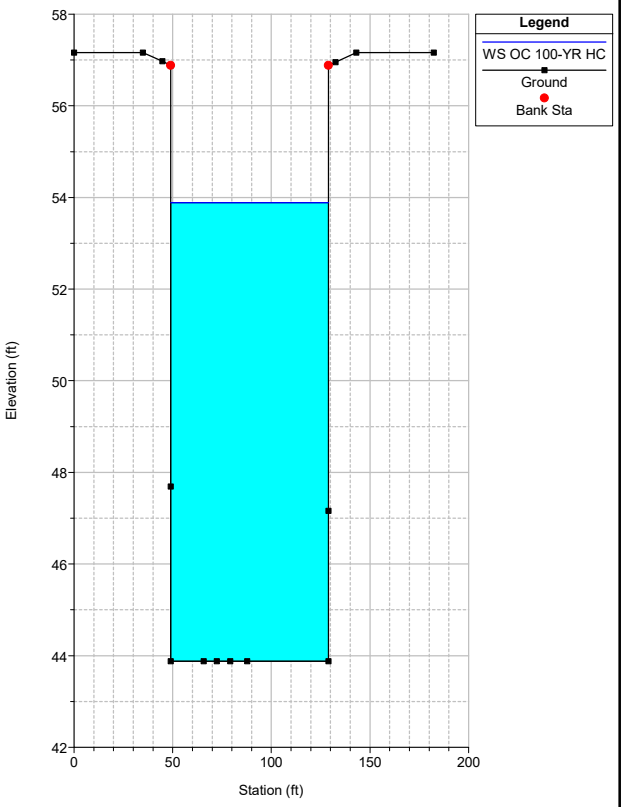


Appendix E
Proposed Conditions
Cross Sections

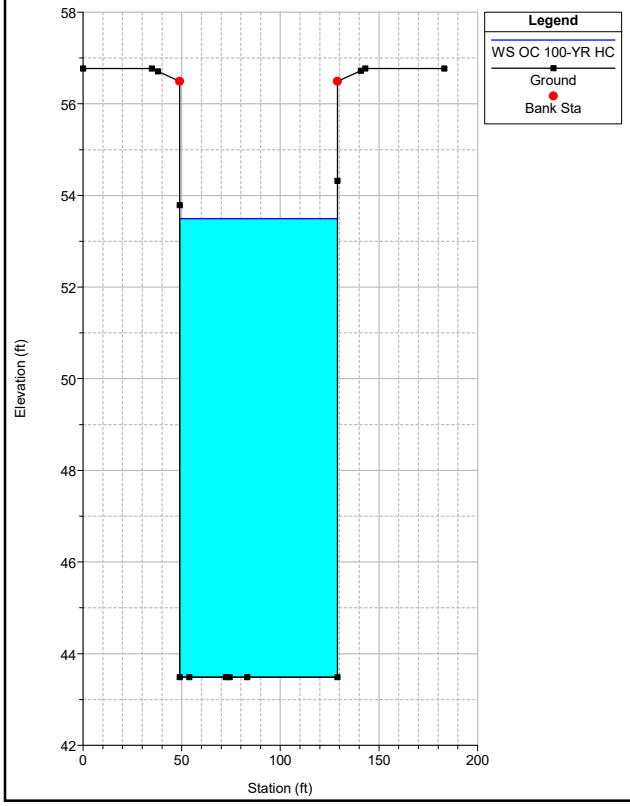
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43722



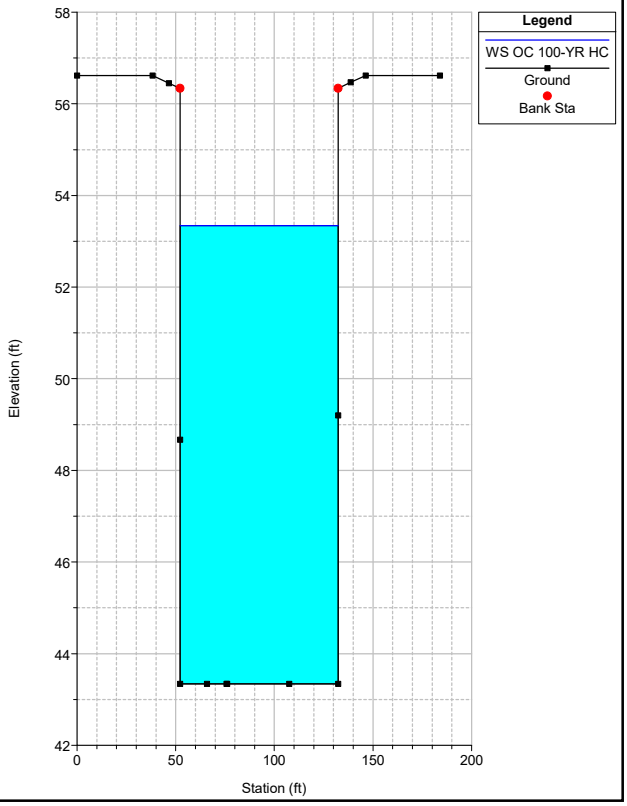
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43672

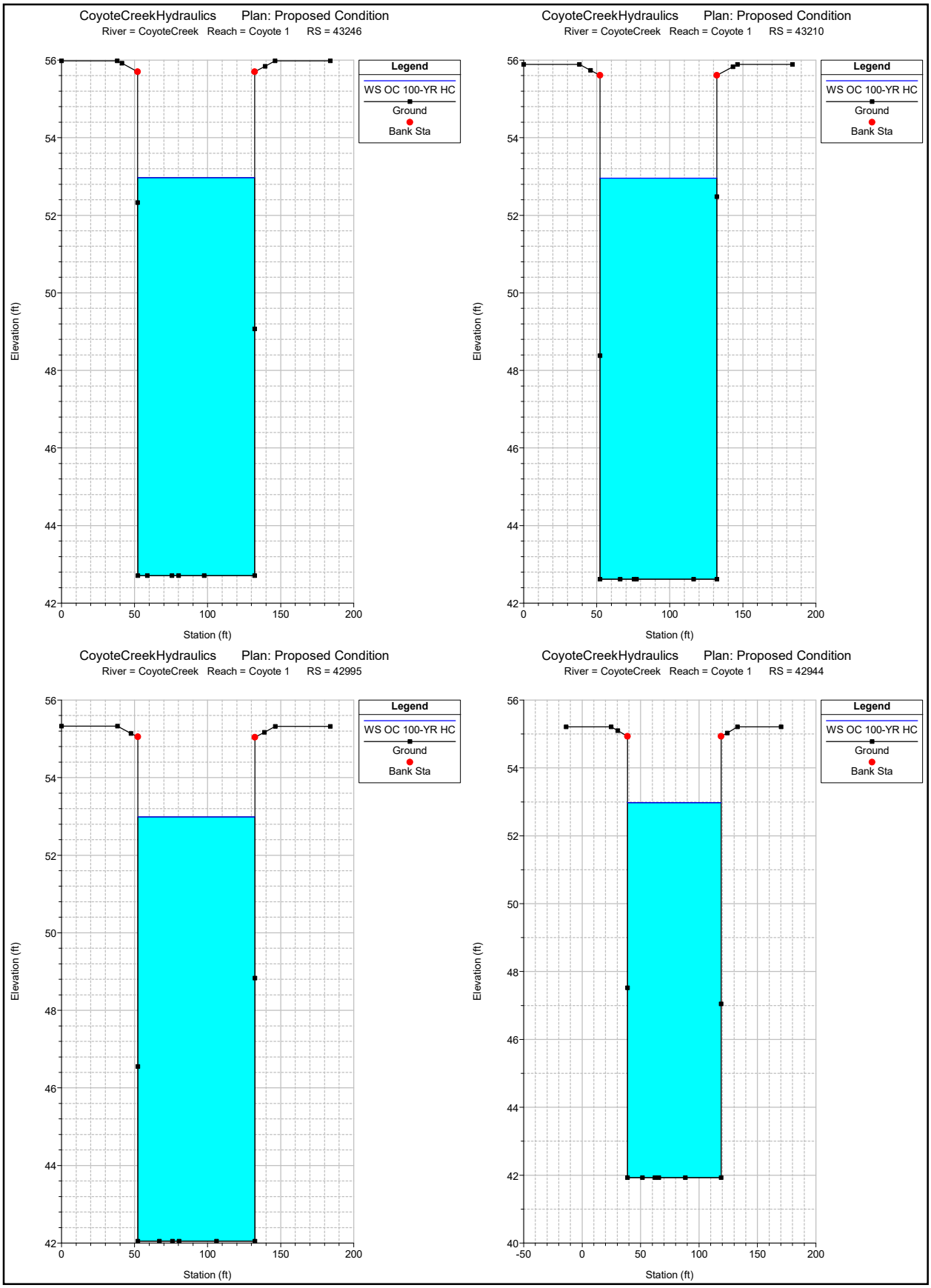


CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43531

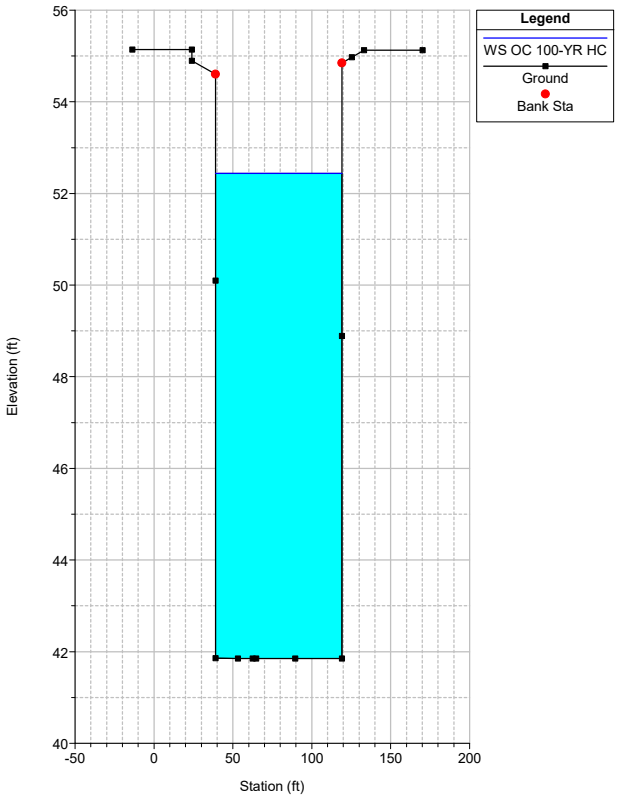


CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43495

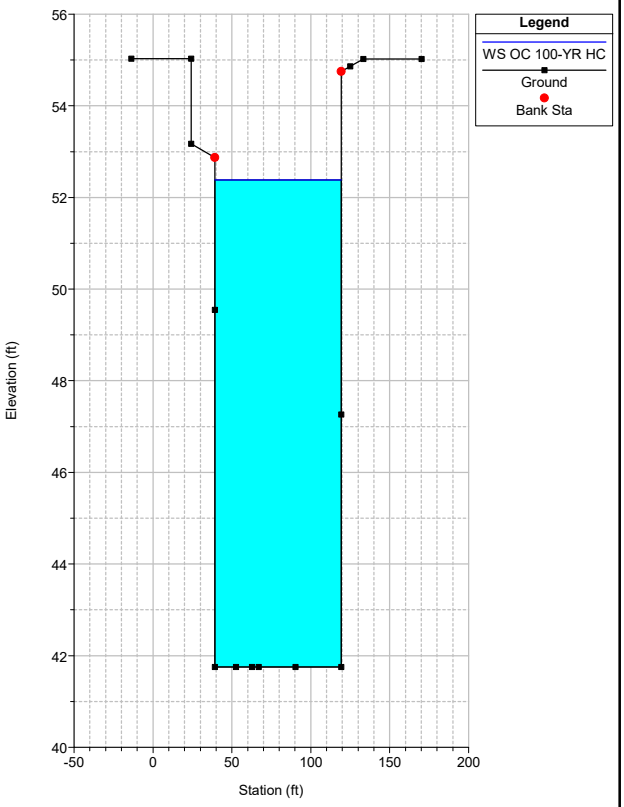



CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43246
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 43210
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42995
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42944
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)

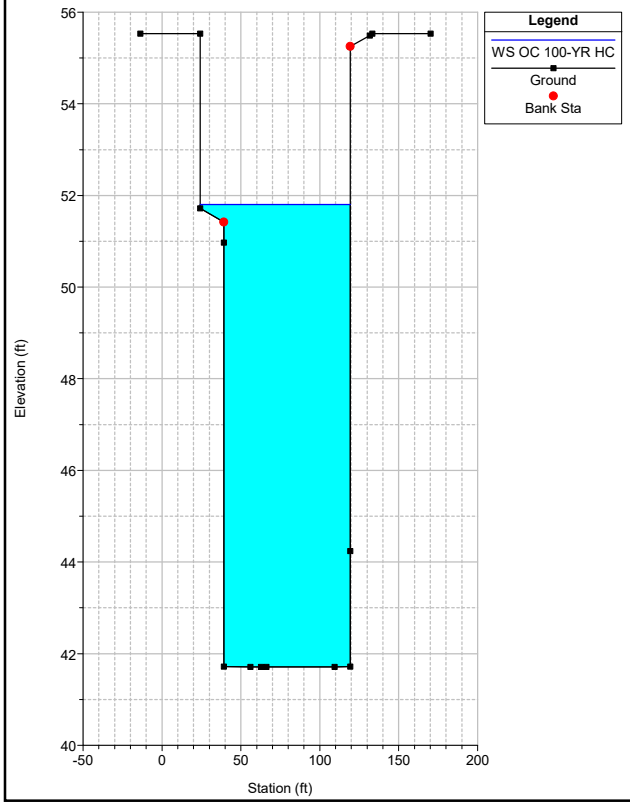
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42845



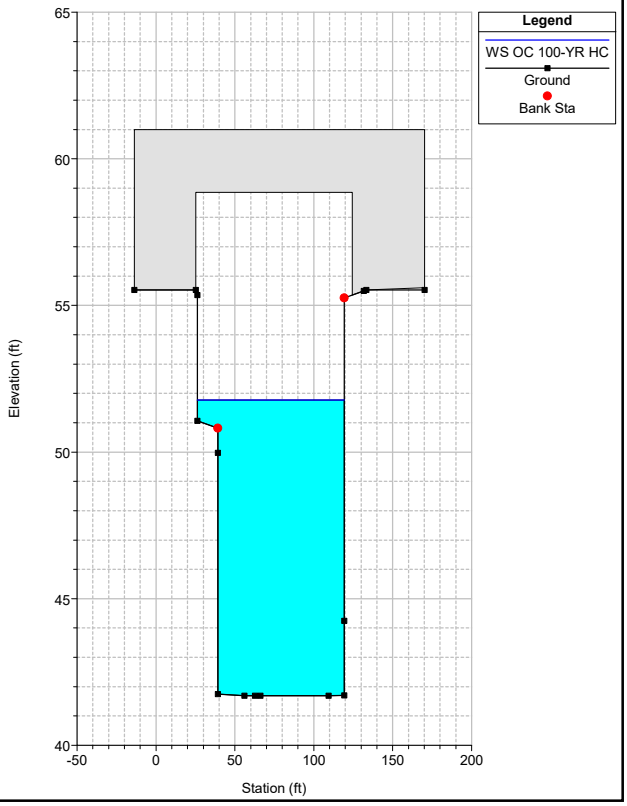
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42794



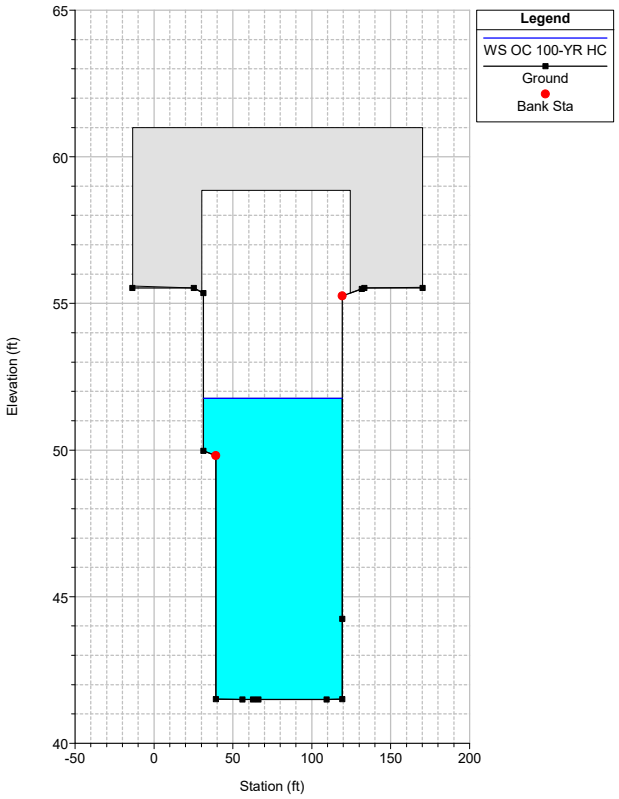
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42765



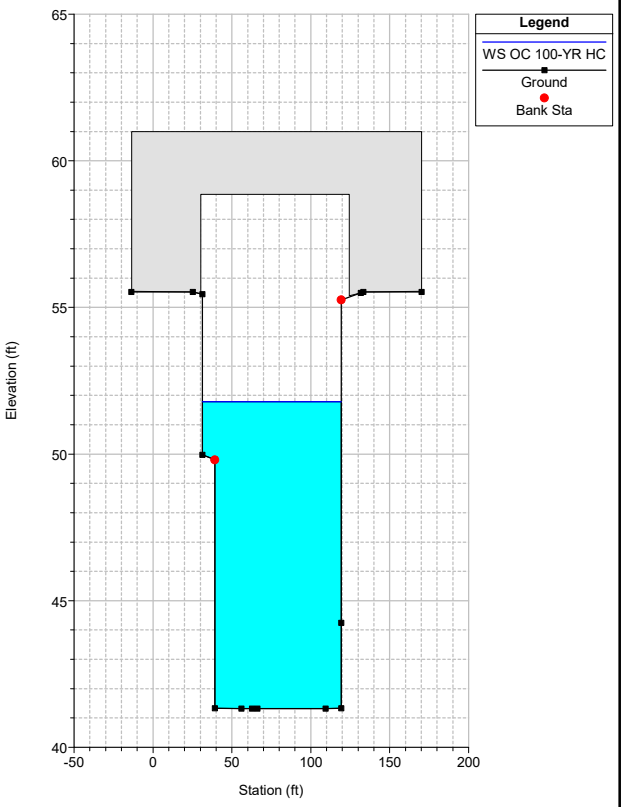
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42752



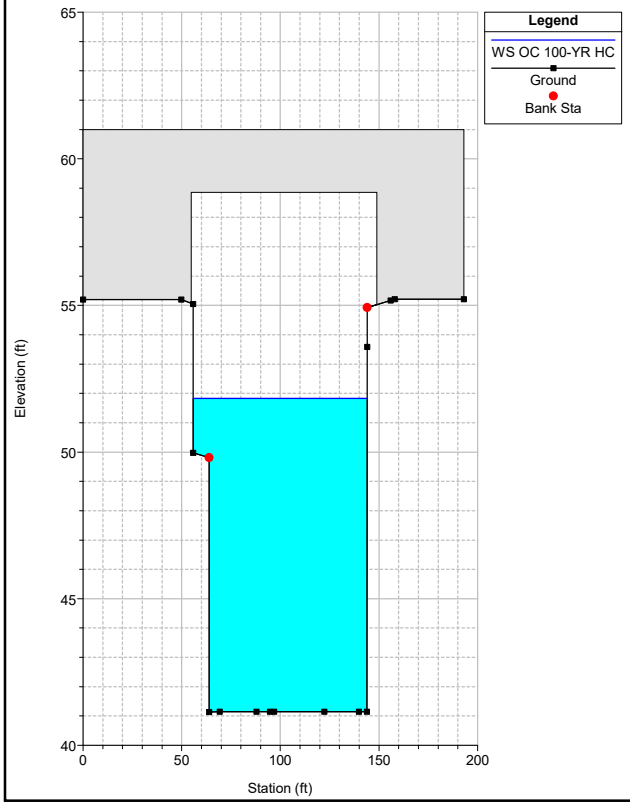
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42720



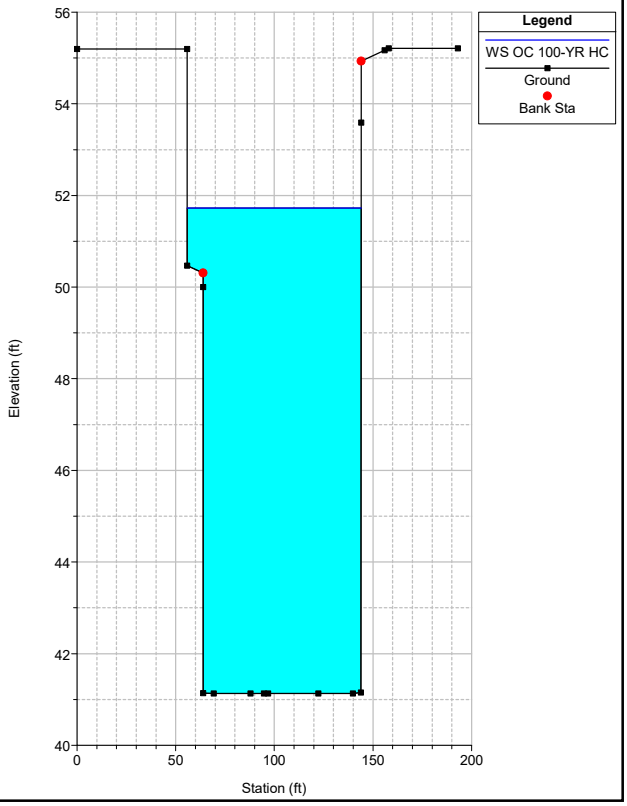
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42656



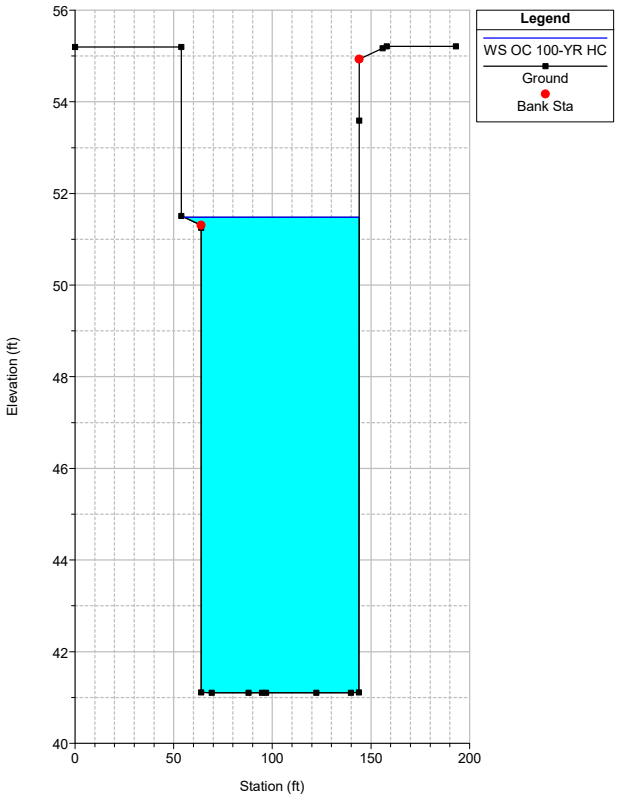
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42594



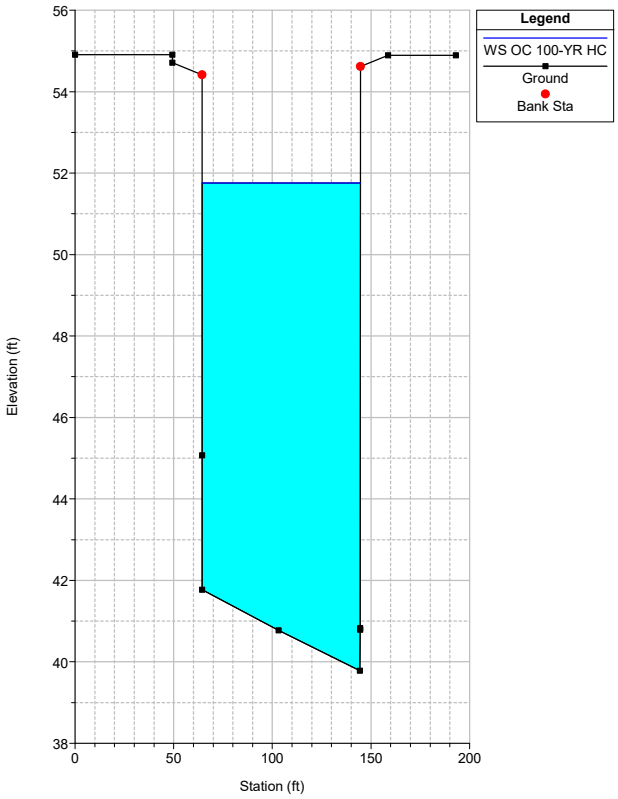
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42576



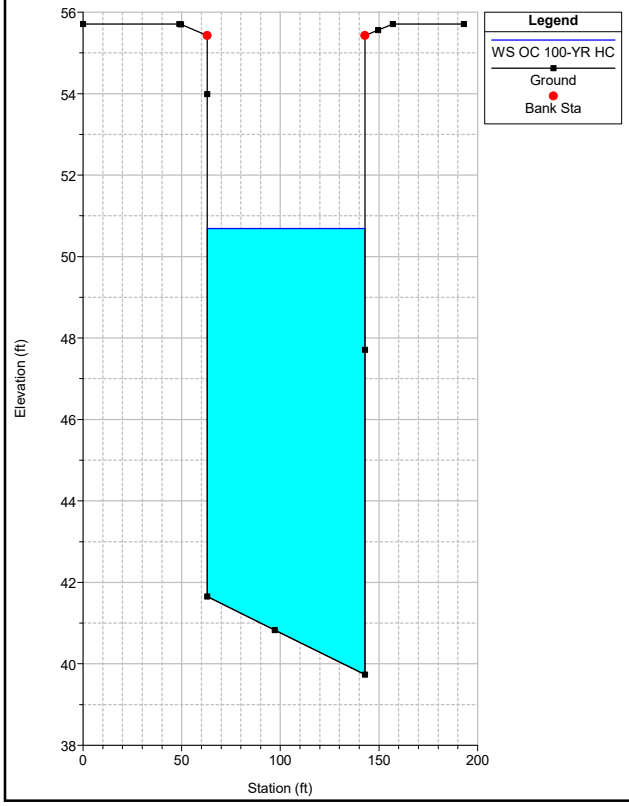
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42555



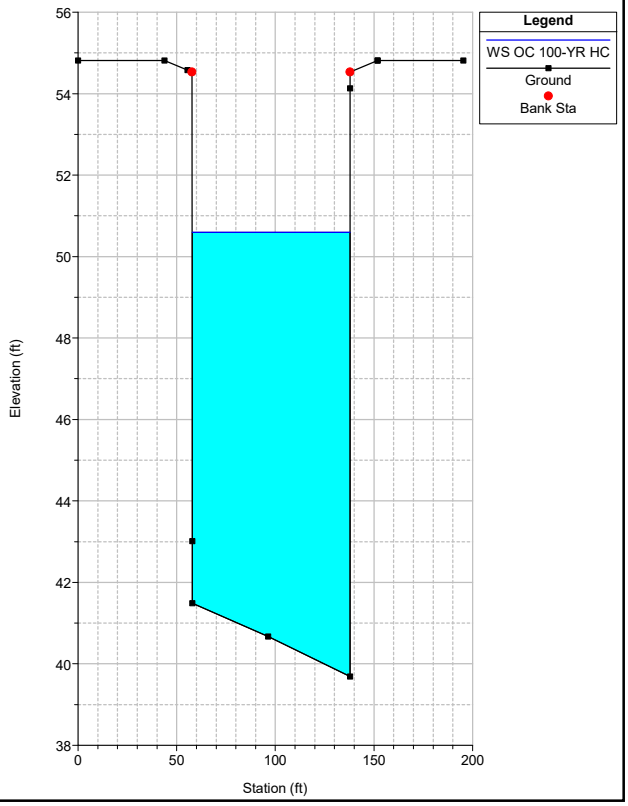
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42493



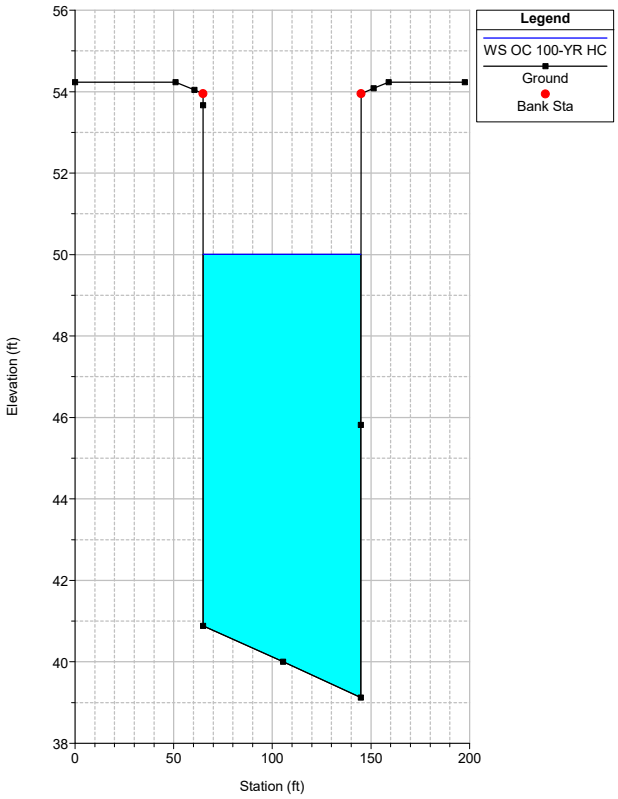
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42444



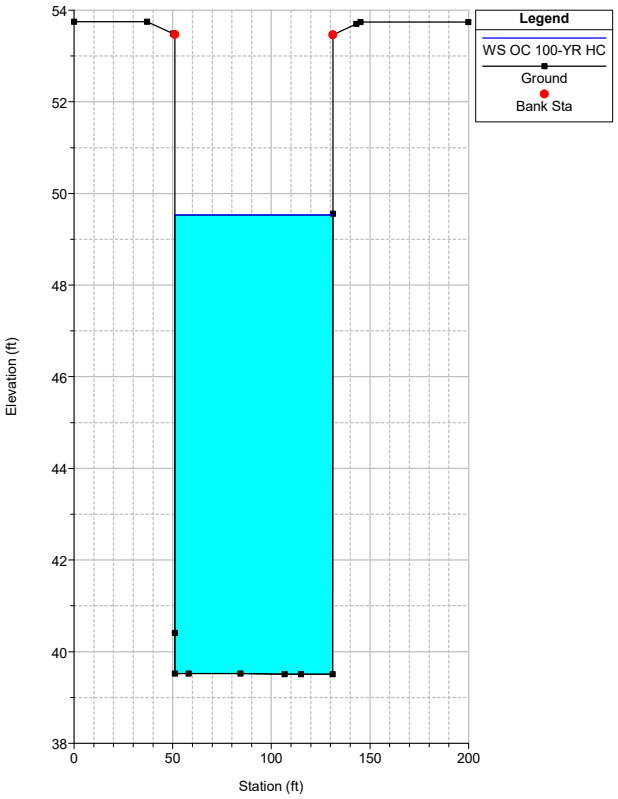
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42396



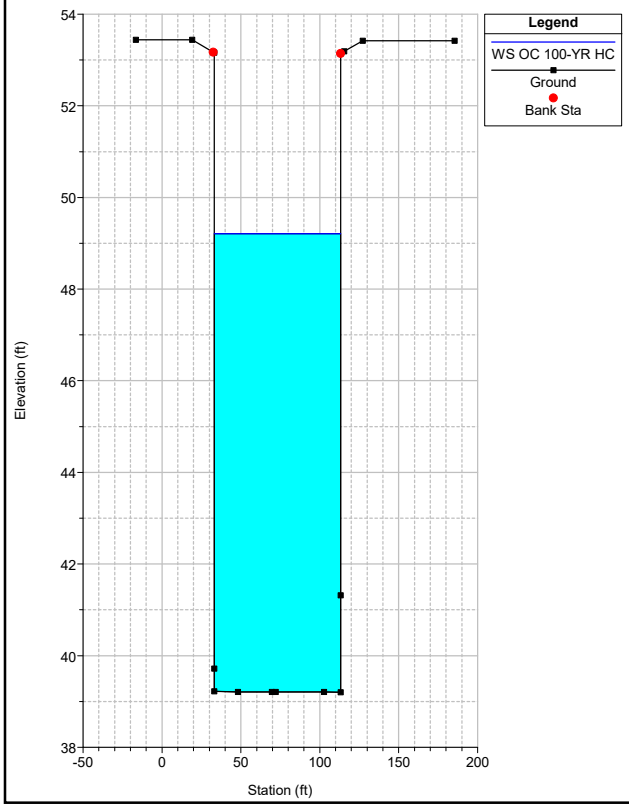
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 42158



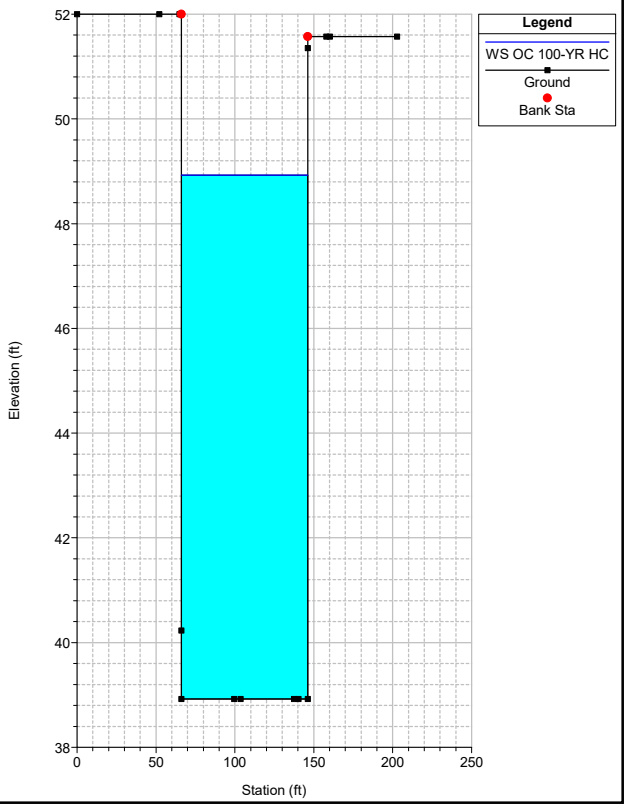
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41918



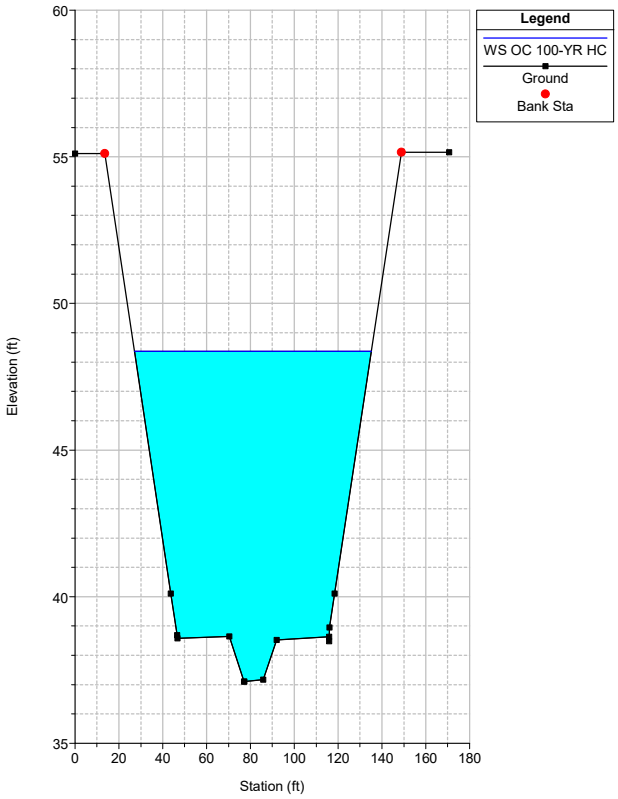
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41746



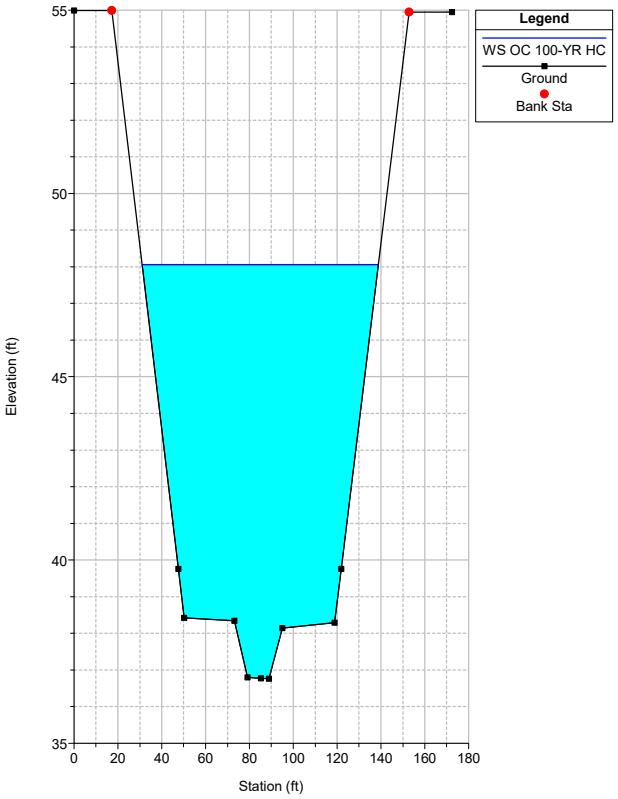
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41649



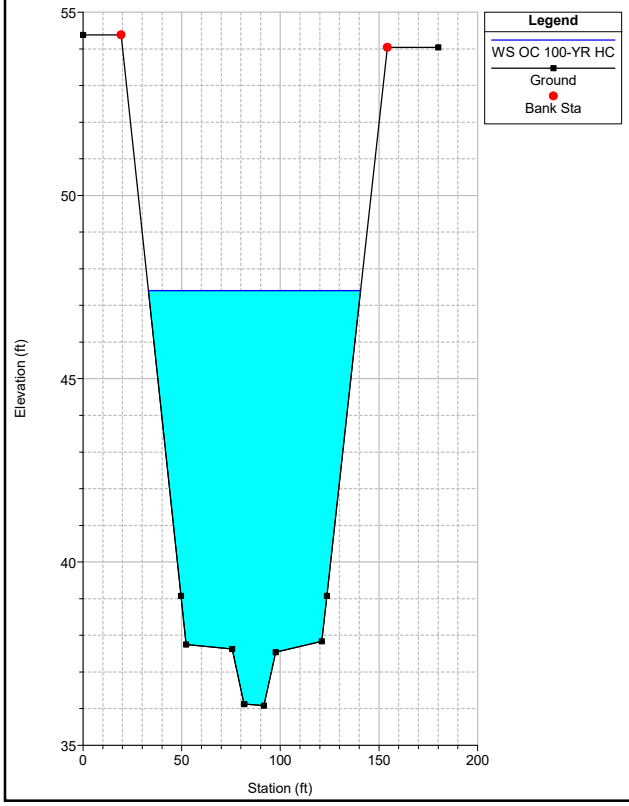
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41546



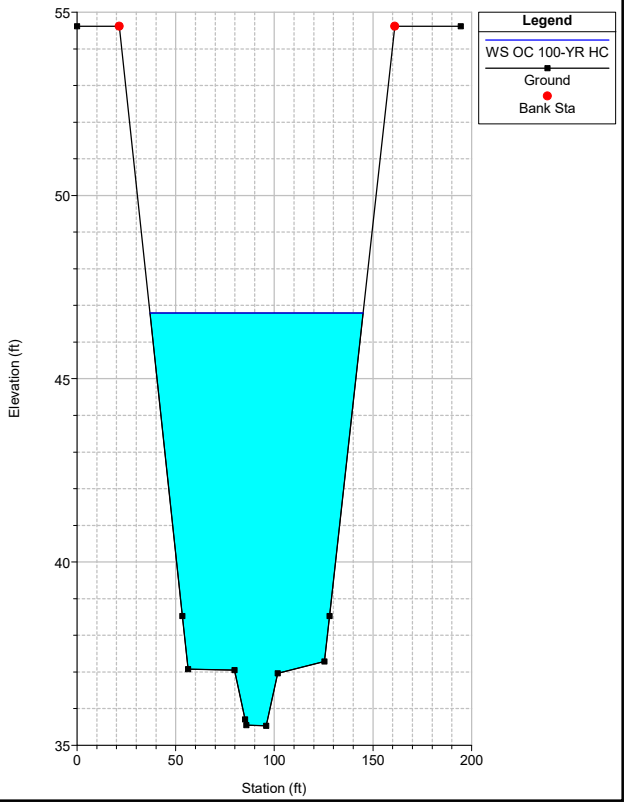
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41449



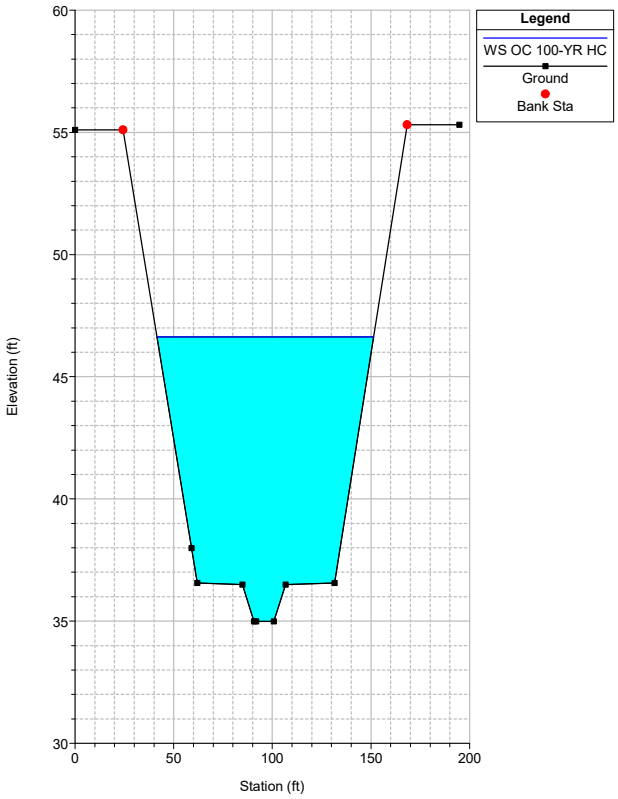
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 41199



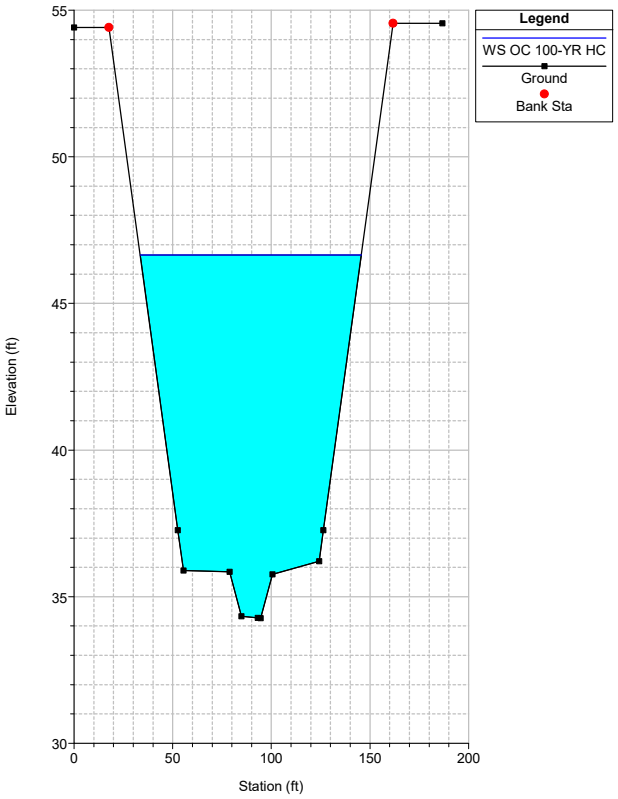
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 40950



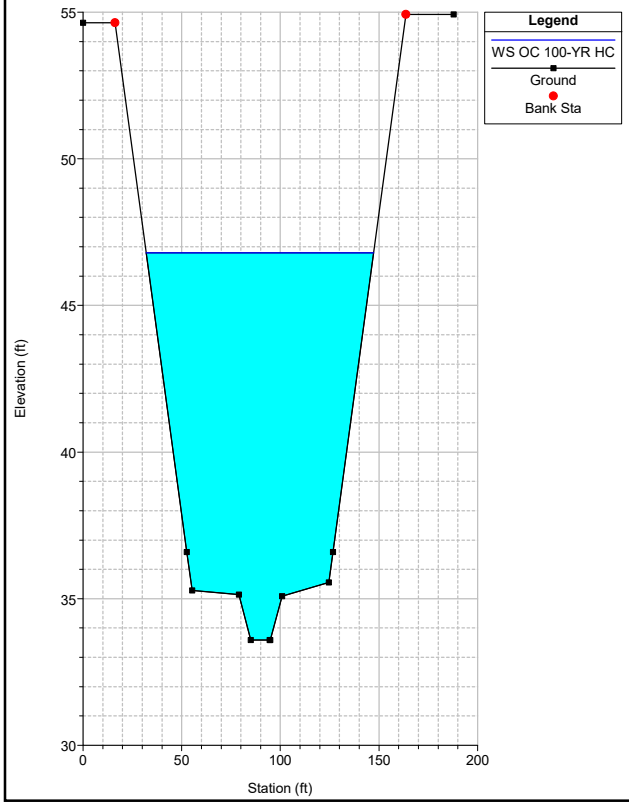
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 40699



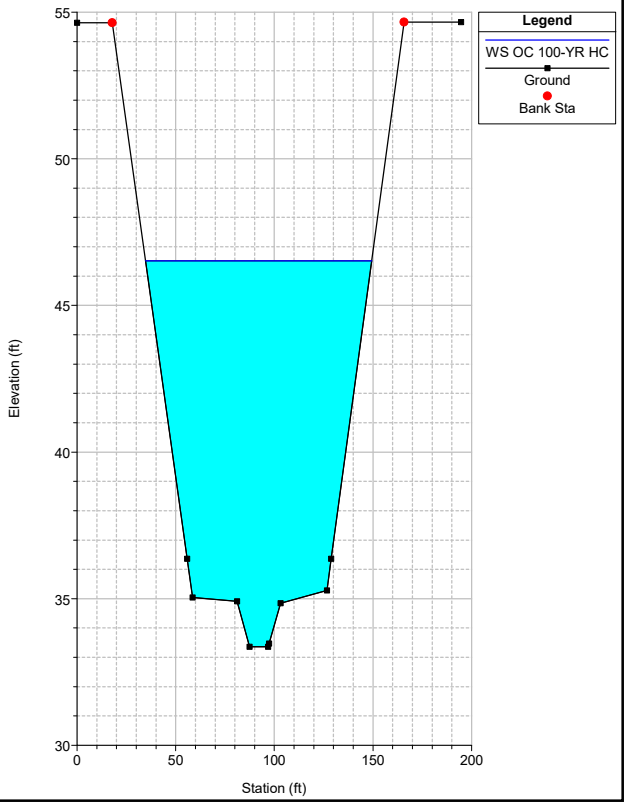
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 40446

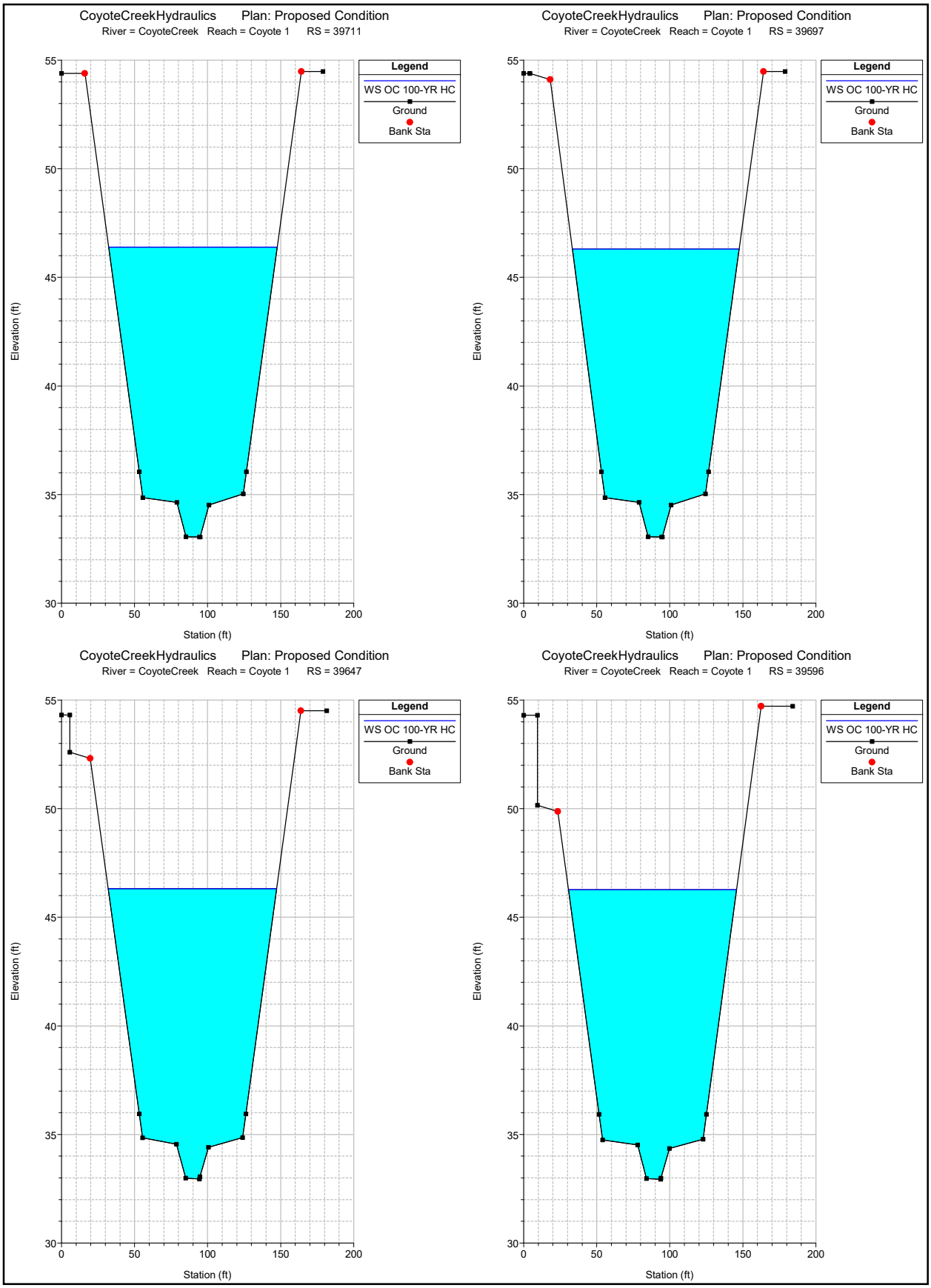


CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 40196

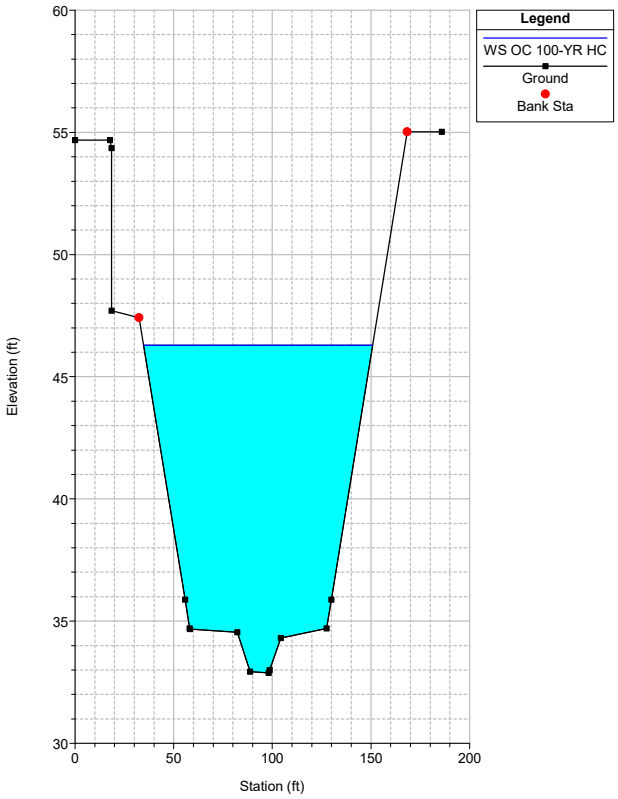


CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39946

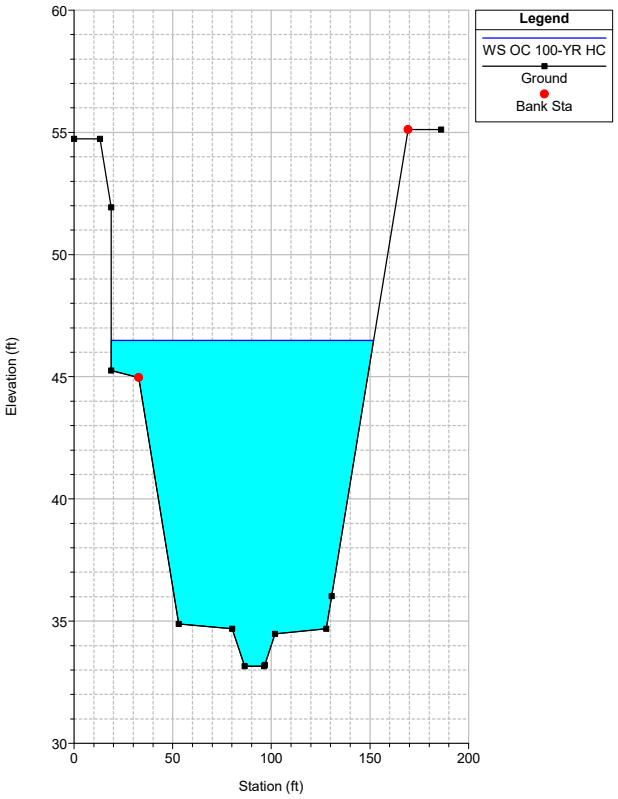



CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39711
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39697
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39647
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39596
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)

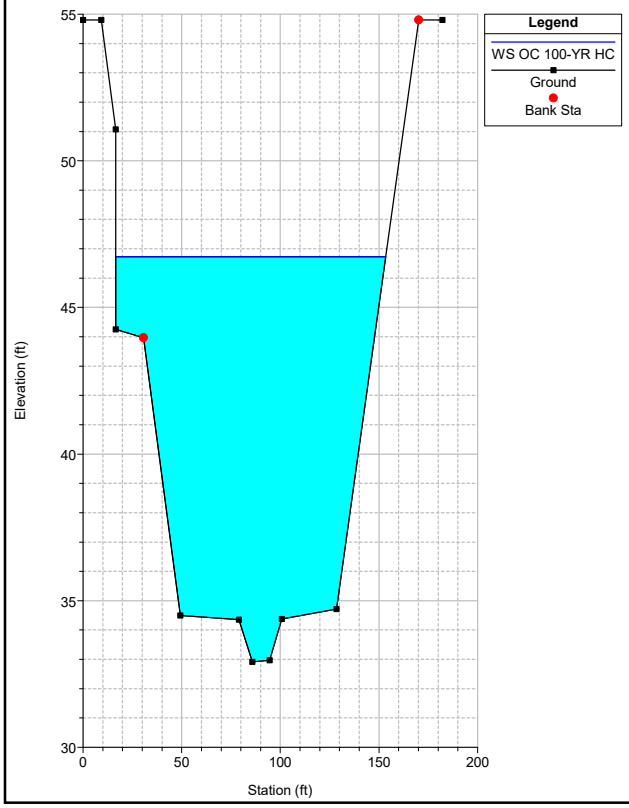
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39548



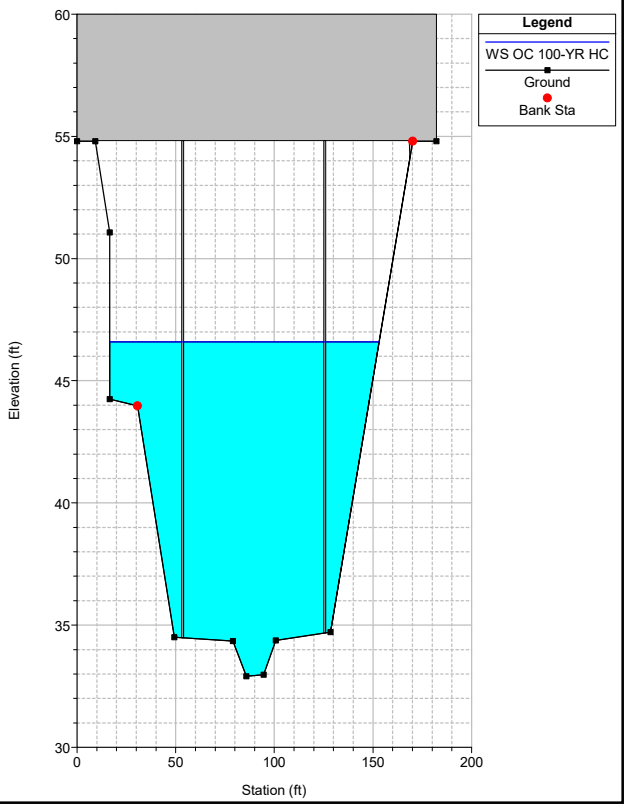
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39498



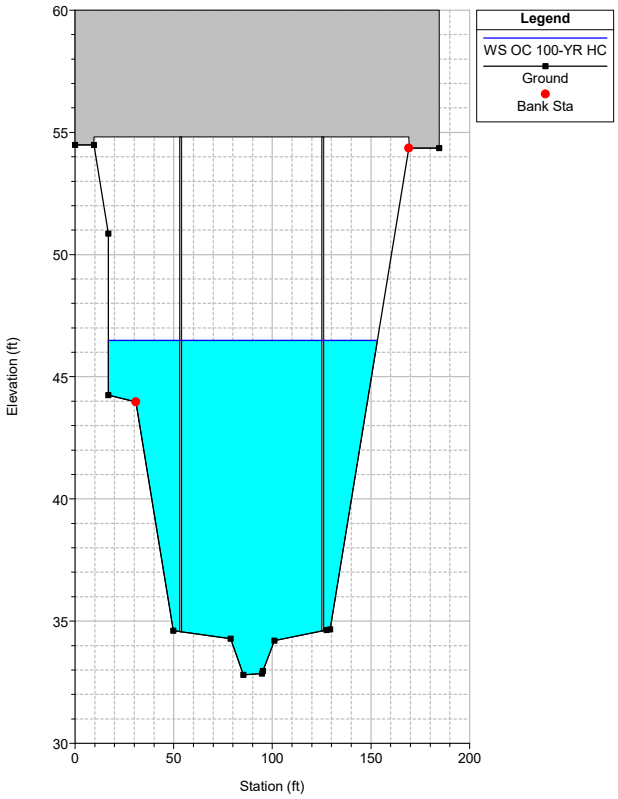
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39458



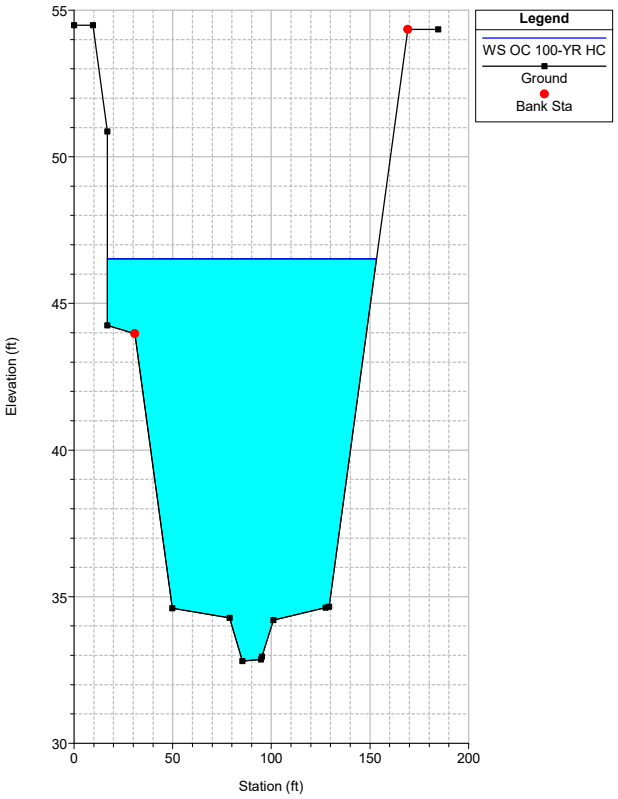
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39401 BR Valley View Street



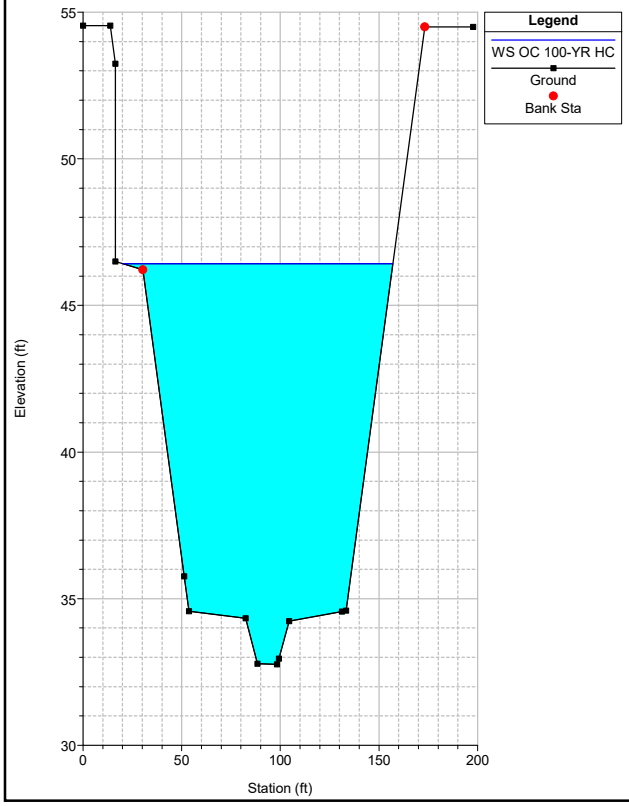
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39401 BR Valley View Street



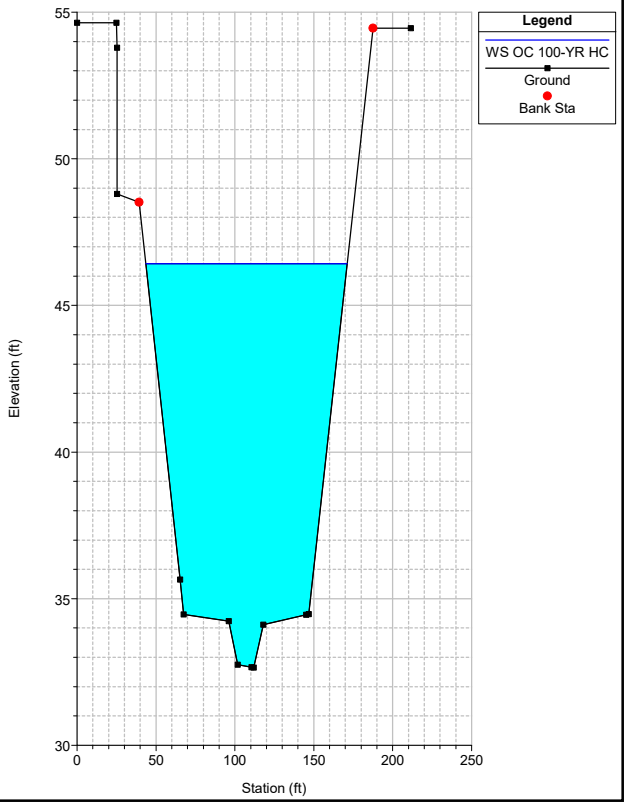
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39319



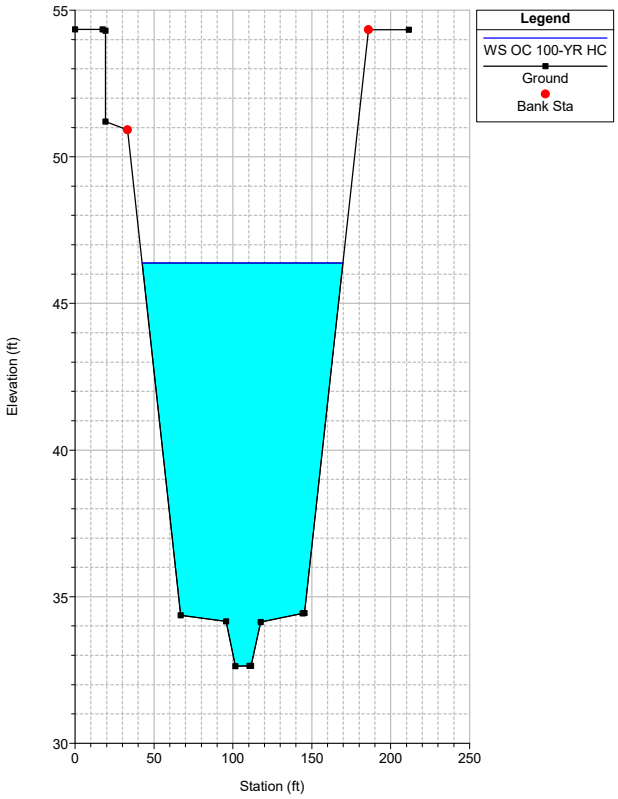
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39273



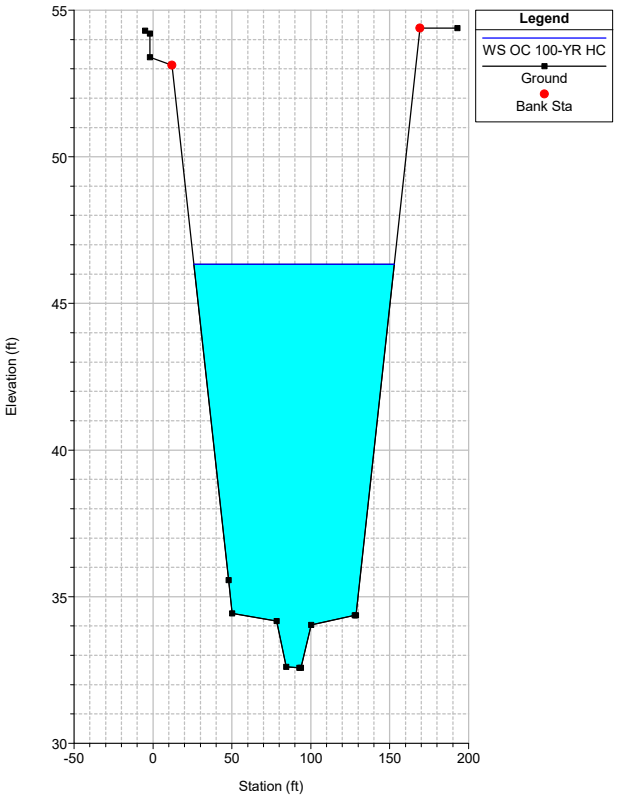
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39226



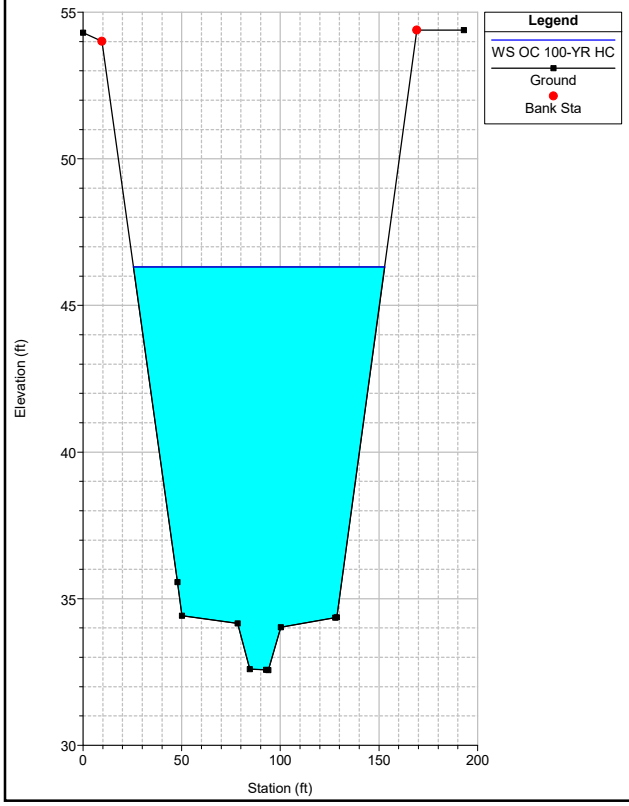
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39177



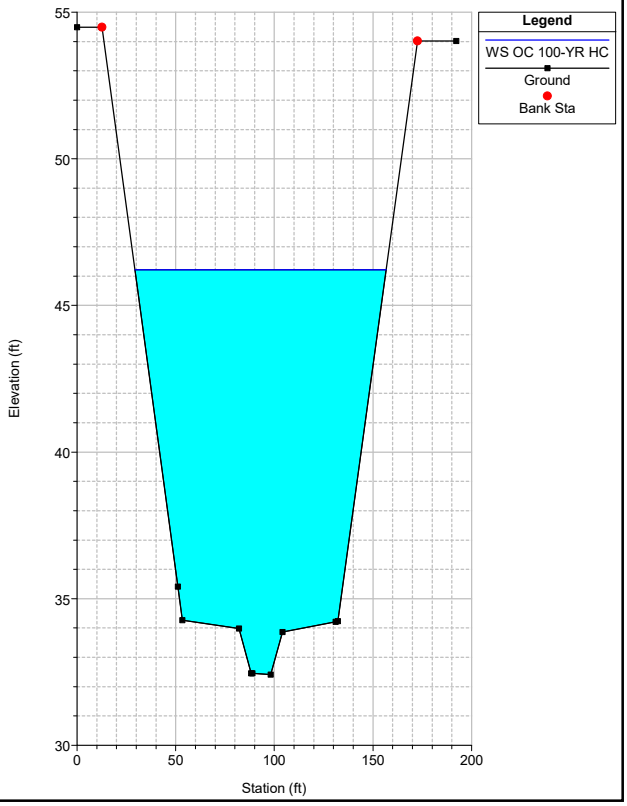
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39132

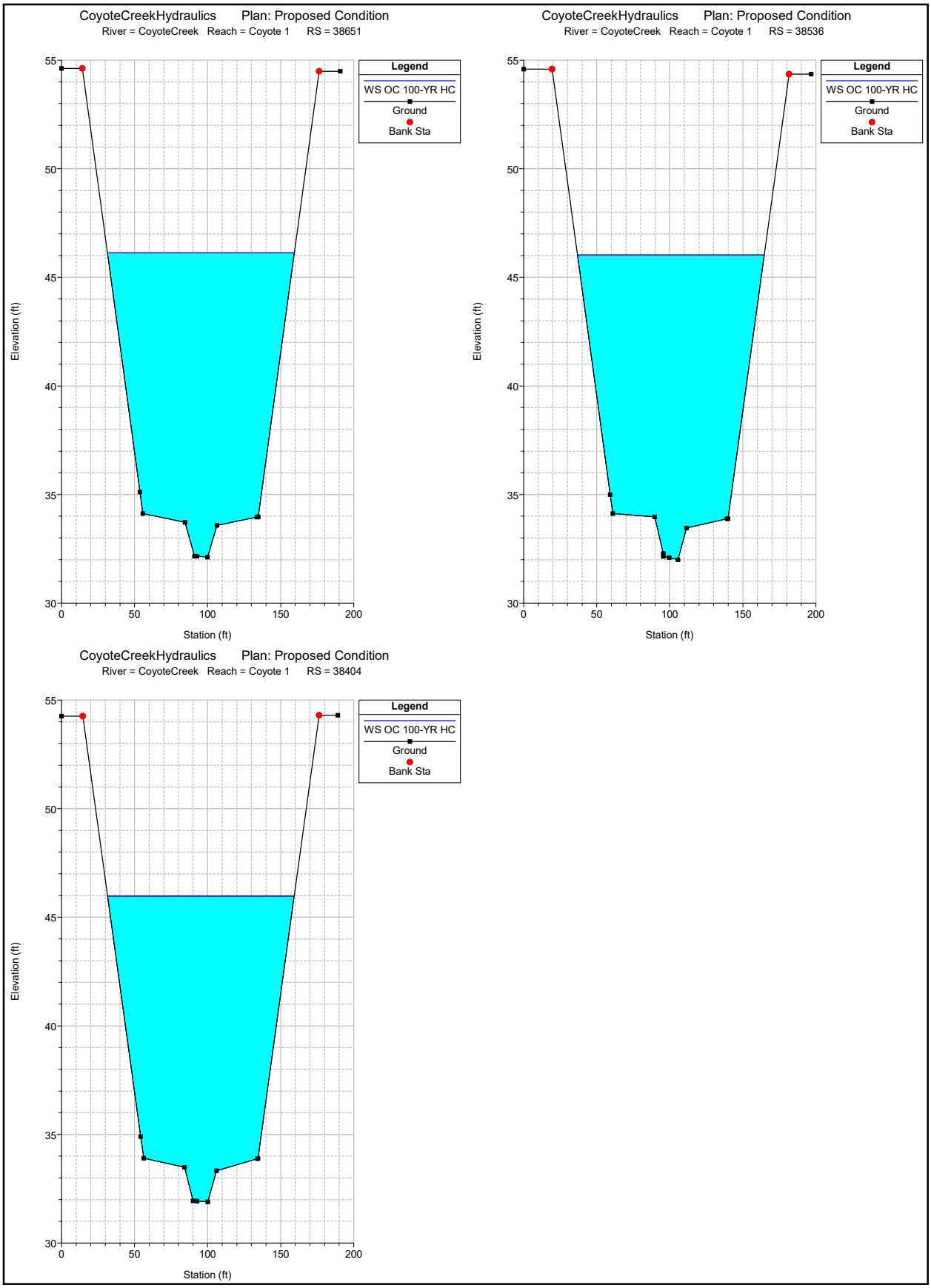


CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 39097



CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 38891




CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 38651
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 38536
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)
CoyoteCreekHydraulics Plan: Proposed Condition
River = CoyoteCreek Reach = Coyote 1 RS = 38404
Legend
WS OC 100-YR HC
Ground
Bank Sta
Elevation (ft)
Station (ft)

about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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APPENDIX D

TRANSPORTATION AIR QUALITY CONFORMITY ANALYSIS CHECKLIST

Transportation Air Quality Conformity Findings Checklist

Project Name:	OC Loop Segments O, P and Q Project
Dist-Co-Rte-PM:.	12/Ora/Orange County **EA:** N/A
Federal-Aid No.:	ATPL-5955 (112)
Document Type:	☒ **23 USC 326 CE** ☐ **23 USC 327 CE** ☐ **EA** ☐ **EIS**

Step 1. Is the project located in a nonattainment or maintenance area for ozone, nitrogen dioxide, carbon monoxide (CO), PM2.5, or PM10 per EPA's Green Book listing of non-attainment areas?

☐ If no, go to Step 17. **Transportation conformity does not apply to the project.**

☒ If yes, go to Step 2.

Step 2. Is the project exempt from conformity per 40 CFR 93.126 or 40 CFR 93.128?

☒ If yes, go to Step 17. **The project is exempt from all project-level conformity requirements (40 CFR 93.126 or 128)** (check one box below and identify the project type, if applicable).

- ☒ 40 CFR 93.126[1] Project type from Table 2: Bicycle and Pedestrian Facilities
- ☐ 40 CFR 93.128

☐ If no, **go** to Step 3.

Step 3. Is the project exempt from regional conformity per 40 CFR 93.127?

☐ If yes, go to Step 8. **The project is exempt from regional conformity requirements (40 CFR 93.127)** (identify the project type). Project type: _____

☐ If no, go to Step 4.

Step 4. Is the project located in a region with a currently conforming RTP and TIP?

☐ If yes, t**he project is included in a currently conforming RTP and TIP per 40 CFR 93.115. The project's design and scope have not changed significantly from what was assumed in RTP conformity analysis (40 CFR 93.115[b])** Go to Step 8.

☐ If no and the project is located in an isolated rural area, go to Step 5.

☐ If no and the project is not located in an isolated rural area, STOP and do not proceed until a conforming RTP and TIP are adopted.

Step 5. For isolated rural areas, is the project regionally significant per 40 CFR 93.101, based on review by Interagency Consultation?

☐ If yes, go to Step 6.

☐ If no, go to Step 8. **The project, located in an isolated rural area, is not regionally significant and does not require a regional emissions analysis (40 CFR 93.101 and 93.109[l]).**

Step 6. Is the project included in another regional conformity analysis that meets the isolated rural area analysis requirements per 40 CFR 93.109, including Interagency Consultation and public involvement?

☐ If yes, go to Step 8. **The project, located in an isolated rural area, has met its regional analysis requirements through inclusion in a previously-approved regional conformity analysis that meets current requirements (40 CFR 93.109[l]).**

☐ If no, go to Step 7.

Step 7. The project, located in an isolated rural area, requires a separate regional emissions analysis.

☐ **Regional emissions analysis for regionally significant project, located in an isolated rural area, is complete. Regional conformity analysis was conducted that includes the project and reasonably foreseeable regionally significant projects for at least 20 years. Interagency Consultation and public participation were conducted. Based on the analysis, the interim or emission budget conformity tests applicable to the area are met (40 CFR 93.109[l] and 95.105).**[2] Go to Step 8.

Step 8. Is the project located in a CO nonattainment or maintenance area? (South Coast Air Basin only)

☐ If no, go to Step 9. **CO conformity analysis is not required.**

☐ If yes, **hot-spot analysis requirements for CO per the** CO Protocol (or per EPA's modeling guidance, CAL3QHCR can be used with EMFAC emission factors[3]) **have been met. Project will not cause or contribute to a new localized CO violation (40 CFR 93.116 and 93.123)**[4]. Go to Step 9.

---

[1] Please refer to Clarifications on Exempt Project Determinations (http://www.dot.ca.gov/ser/downloads/guidance/aq-clarifications-exempt-project-determinations.pdf) to verify exempt project type from Table 2. Road diets, auxiliary lanes less than one-mile, and ramp metering may be exempt under "projects that correct, improve, or eliminate a hazardous location or feature."

[2] The analysis must support this conclusion before going to the next step.

[3] Use of the CO Protocol is strongly recommended due to its use of screening methods to minimize the need for modeling. When modeling is needed, the Protocol simplifies the modeling approach. Use of CAL3QHCR must follow U.S. EPA's latest CO hot spot guidance, using EMFAC instead of MOVES; see: http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm#co-hotspot.

[4] As of October 1, 2007, there are no CO nonattainment areas in California. Therefore, the requirements to not worsen existing violations and to reduce/eliminate existing violations do not apply.

Step 9. Is the project located in a PM10 and/or a PM2.5 nonattainment or maintenance area?

☐ If no, go to Step 13. **PM2.5/PM10 conformity analysis is not required.**

☐ If yes, go to Step 10.

Step 10. Is the project considered to be a Project of Air Quality Concern (POAQC), as described in EPA's Transportation Conformity Guidance for PM 10 and PM 2.5?

☐ If no, **the project is not a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Analysis Guidance. Interagency Consultation concurred with this determination on** _____. Go to Step 12.

☐ If yes, go to Step 11.

Step 11. The project is a POAQC.

☐ **The project is a project of concern for PM10 and/or PM2.5 hot-spot analysis based on 40 CFR 93.116 and 93.123, and EPA's Hot-Spot Guidance. Interagency Consultation concurred with this determination on** _____. **Detailed PM hot-spot analysis, consistent with 40 CFR 93.116 and 93.123 and EPA's Hot-Spot Guidance, shows that the project would not cause or contribute to, or worsen, any new localized violation of PM10 and/or PM2.5 standards.** Go to Step 12.

Step 12. Does the approved PM SIP include any PM10 and/or PM2.5 control measures that apply to the project, and has a written commitment been made as part of the air quality analysis to implement the identified SIP control measures? [Control measures can be found in the applicable Federal Register notice at: https://www.epa.gov/state-and-local-transportation/conformity-adequacy-review-region-9#ca.]

☐ If yes, **a written commitment is made to implement the identified SIP control measures for PM10 and/or PM2.5 through construction or operation of this project (40 CFR 93.117).** Go to Step 14.

☐ If no, go to Step 13.

Step 13a. Have project-level mitigation or control measures for CO, PM10, and/or PM2.5, included as part of the project's design concept and scope, been identified as a condition of the RTP or TIP conformity determination? AND/OR

Step 13b. Are project-level mitigation or control measures for CO, PM10, and/or PM2.5 included in the project's NEPA document? AND

Step 13c (applies only if Step 13a and/or 13b are answered "yes")**.** Has a written commitment been made as part of the air quality analysis to implement the identified measures?

☐ If yes to 13a and/or 13b and 13c, **a written commitment is made to implement the identified mitigation or control measures for CO, PM10, and/or PM2.5 through construction or operation of this project. These mitigation or control measures are identified in the project's NEPA document and/or as conditions of the RTP or TIP conformity determination[1] (40 CFR 93.125(a)).** Go to Step 14.

☐ If no, go to Step 14.

Step 14. Does the project qualify for a Categorical Exclusion pursuant to 23 USC 326?

☐ If yes, go to step 15.

☐ If no, go to Step 16.

Step 15. Is any analysis required by steps 1-13 of this form?[5]

☐ If yes, then Caltrans prepares the appropriate analysis and documentation for the project file and makes the conformity determination through its signature on the CE form. No FHWA involvement is required. See the AQCA Annotated Outline. Go to Step 17.

☐ If no, then Caltrans makes the conformity determination through its signature on the CE form. No FHWA involvement is required. Go to Step 17.

Step 16. Does the project require preparation of a Categorical Exclusion, EA, or EIS pursuant to 23 USC 327?

☐ If yes, then Caltrans submits a conformity determination request to FHWA for FHWA's conformity determination letter. **An AQCA is needed.** See the AQCA Annotated Outline.

Date of FHWA air quality conformity determination: _____

Go to Step 17.

Step 17. STOP as all air quality conformity requirements have been met.

Signature: _____

Printed Name: _____ **Date:** _____

Title: _____

[5] Please note that not all projects that qualify for a categorical exclusion will be exempt from air quality conformity requirements. Many types of projects that may qualify for a CE (such as the addition of auxiliary lanes less than one-mile, weaving lanes less than one-mile, turning lanes less than one-mile, climbing lanes less than one-mile, parking, road diets, ramp metering, and even many bridge projects) MAY require some level of project level conformity analysis and may even require interagency consultation. Additionally, please note that for ALL projects the project file must include evidence that one of the three following situations apply: 1) Conformity does not apply to the project area; or 2) The project is exempt from all conformity analysis requirements; or 3) The project is subject to project-level conformity analysis (and possibly regional conformity analysis) and meets the criteria for a conformity determination. The project file must include all supporting documentation and this checklist.

U.S. Department of Transportation

Federal Highway Administration
California Division
650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
(916) 498-5008

Federal Transit Administration
Region 9
90 7th Street, Suite 15-300
San Francisco, CA 94103
(415) 734-9490 – Main

December 17, 2018

In Reply Refer To:
HDA-CA

Mr. Bruce de Terra
Chief, Division of Transportation Programming
California Department of Transportation, MS 82
1120 N Street
Sacramento, CA 95814

SUBJECT: APPROVAL OF 2019 FSTIP AND PLANNING FINDING

Dear Mr. De Terra:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have determined that the State of California's 2019-22 Federal Statewide Transportation Improvement Program (FSTIP) and incorporated Federal Transportation Improvement Programs (FTIP) for the following metropolitan planning organization (MPO) planning areas are based on a continuing, cooperative and comprehensive transportation planning process in accordance with 23 U.S.C. 134 and 135, and 49 U.S.C. 5303 and 5304. The approval of the FSTIP includes the following metropolitan FTIPs that have been incorporated by reference:

1. Association of Monterey Bay Governments,
2. Butte County Association of Governments,
3. Fresno Council of Governments,
4. Kern Council of Governments,
5. Kings County Association of Governments,
6. Madera County Transportation Commission,
7. Merced County Association of Governments,
8. Metropolitan Transportation Commission,
9. Sacramento Area Council of Governments,
10. San Diego Association of Governments,
11. San Joaquin Council of Governments,
12. San Luis Obispo Council of Governments,
13. Santa Barbara County Association of Governments,
14. Shasta Regional Transportation Agency,
15. Southern California Association of Governments,
16. Stanislaus Council of Governments,
17. Tahoe Regional Planning Agency, and
18. Tulare County Association of Governments.

The following are recommendations for transportation planning process improvements that remain outstanding from the December 16, 2016 or earlier Statewide Planning Findings that warrant continued attention in the statewide and metropolitan planning processes in the State of California:

I. Core MPO Planning Functions: Progress has been made by MPOs in identifying Core Planning Functions within their Overall Work Programs (OWP). However, we encourage Caltrans to continue working closely with the MPOs in their OWP development processes to ensure that the draft and final OWPs include, at a minimum, the following work elements: Overall Work Program, Public Participation Activities, Metropolitan/Regional Transportation Plan, Federal Transportation Improvement Program; Congestion Management Process (required for Transportation Management Areas (TMA) – MPOs over 200,000 in population), Performance-Based Transportation Planning and Programming (Performance Measures), Air Quality Planning and Conformity (in all non-attainment areas for the National Ambient Air Quality Standards as defined by the 1990 Clean Air Act and subsequent changes to those standards) and the Annual Listing of Obligated Projects.

II. Implementation of Performance-Based Transportation Planning and Programming: Sections 1201 and 1202 of MAP-21 require that the metropolitan and statewide transportation planning processes provide for the establishment and use of a performance-based approach to transportation decision making to support the national goals described in 23 U.S.C. 1509(b) and 49 U.S.C. 5301(c). Each State and each MPO is required to establish performance targets that address the Performance Measures described in 23 U.S.C 150(c) [MAP-21 section 1203].

USDOT issued the schedules for compliance with Performance-Based Transportation Planning since the December 16, 2016 Statewide Planning Finding. We find that in the State of California, compliance with the schedules for PM-1, PM-2 and PM-3 is proceeding satisfactorily. We applaud the diligent efforts of Caltrans and the MPOs in establishing master agreements for conducting the process, the training workshops and outreach, establishing targets for the Performance Measures, and submitting all required data and reports in compliance with the established schedules.

FHWA and FTA recognize that the implementation and full integration of Performance-Based Planning and Programming into the planning and programming processes in California will be a complex task likely to consume a number of upcoming FSTIP and Regional Transportation Plan (RTP) cycles. We will continue during this transition period and after full implementation to work closely with the State, MPOs and transit operators in providing technical assistance and best practices.

III. Consultation with Indian Tribal Governments and Federal Land Management Agencies: MPOs are required to develop a documented procedure that outlines the roles, responsibilities, and key decision points for consulting with Indian Tribal governments (ITG) and Federal land management agencies (FLMA) pursuant to 23 C.F.R. 450.316(c). The need for MPOs to develop documented procedures for consulting with Indian Tribal

governments and Federal land management agencies continues to be a Federal emphasis area for the MPOs within California.

Progress has been made since the December 16, 2016 Statewide Planning Finding in this area in California, and FHWA and FTA commend Caltrans and the MPOs in the work that has been done to meet requirements. However, to ensure that progress continues in a positive direction, compliance with the requirement for documented consultation procedures will continue to be evaluated by FHWA and FTA as part of the Quadrennial Planning Certification Reviews that are conducted in the TMA MPOs.

IV. Outstanding Corrective Actions from Quadrennial TMA Planning Certification Reviews: There is one outstanding Corrective Action identified through the MPO/TMA Planning Certification Reviews since the December 16, 2016 Statewide Planning Finding. Specifically, the Planning Certification Review for one TMA MPO cited the need to update and develop an integrated Congestion Management Process (CMP), including: Definition of the CMP network, measures of congestion, collection of data, and the development of a continuous monitoring process to maintain the CMP and to ensure that the output of the CMP is used in the MPO planning and programming processes.

Accordingly, the Federal Highway Administration California Division and the Federal Transit Administration Region IX offices find that California's 2019-22 Statewide Transportation Improvement Program (FSTIP) is based on a transportation planning process that meets the requirements of 23 U.S.C. Sections 134 and 135 and 49 U.S.C. Section 5303-5306.

Sincerely,

Edward Carranza, Jr.
Acting Regional Administrator
Region IX
Federal Transit Administration

For
Vincent P. Mammano
Division Administrator
California Division
Federal Highway Administration

cc: (e-mail)
Ted Matley, FTA Region IX
Darin Allan, FTA Region IX
Katrina O'Connor, EPA
Enos Han, FHWA Nevada Division
Morgan Malley, FHWA CFL
Fardad Falakfarsa, Caltrans
Muhaned Aljabiry, Caltrans

cc: (other)
2019 FSTIP I: Drive Folder
I:\Program Development Unit\Planning and Air Quality (2005-Present)\2019 FSTIP Approval
MPO Statewide FTIPs

APPENDIX E

USFWS CONSULTATION LETTER

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
http://www.fws.gov/carlsbad/

In Reply Refer To: February 12, 2020
Consultation Code: 08ECAR00-2020-SLI-0590
Event Code: 08ECAR00-2020-E-01404
Project Name: OC Loop Segments O, P, and Q

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

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species 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 ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system 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:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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 Tracking Number 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

Consultation Code: 08ECAR00-2020-SLI-0590

Event Code: 08ECAR00-2020-E-01404

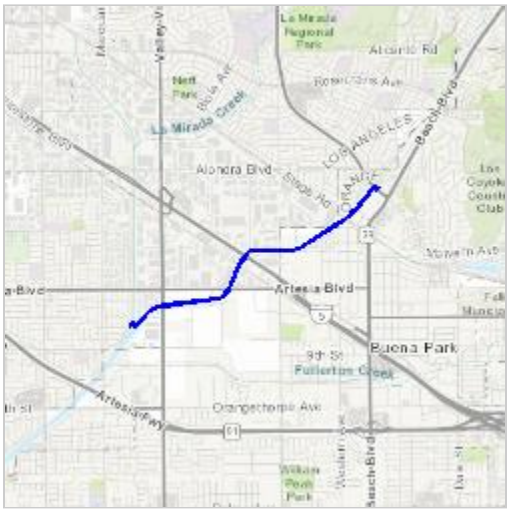
Project Name: OC Loop Segments O, P, and Q

Project Type: RECREATION CONSTRUCTION / MAINTENANCE

Project Description: Orange County Bike Path

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.87338862427862N118.01903354043716W



Counties: Los Angeles, CA | Orange, CA

Endangered Species Act Species

There is a total of 7 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 *Sterna 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 is outside 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 is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	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 is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

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 is outside 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.